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National Capacity Self-Assessment - Final Report and Action Plan

MINISTERE DE L'ENVIRONNEMENT, DE L'ECOLOGIE ET DES FORETS

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GOVERNMENT OF MADAGASCAR

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NATIONAL CAPACITY SELF-ASSESSMENT
FINAL REPORT AND ACTION PLAN

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FOREWORD

In 1992, the international community reached a landmark milestone to protect the global environment when the United Nations (UN) Framework Convention on Climate Change (UNFCCC) and the Convention on Biodiversity (CBD) were opened for signature, followed by the Convention to Combat Desertification and Drought (UNCCD) in 1994. Also in 1992, world leaders and citizens alike came together at the United Nations Conference on Environment and Development (UNCED) to agree on a programme of action to pursue environmentally sound and sustainable development (Agenda 21) to meet these Rio Conventions and other multilateral environmental agreements.

In the twenty plus years since then, Madagascar has strived to meet these obligations, taking into account the country's high level of poverty juxtaposed with its high global environmental values. However, the challenges to reconcile the many national priorities and demands have proved difficult to meet given the country's limited resources. In more recent years, the international development community has provided important support to meeting these challenges.

In this context, the Government of Madagascar, through the Ministry of Environment and Forests (MEEF), has received important financial support from the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). This includes support to assess Madagascar's current challenges to meet and sustain commitments to the three Rio Conventions. While the project resulted in the preparation of this NCSA report and action plan, the project also brought together many stakeholders across government institutions as well as from outside of government to discuss the challenges and opportunities that cut across the three thematic areas of biodiversity, climate change and desertification/land degradation thematic areas.

The NCSA process serves as an important milestone on Madagascar's path to the joint achievement of the Rio Conventions as well as environmentally sound and sustainable development. Implementation of the NCSA Action Plan is also expected to strengthen the country's underlying capacities to meet other international commitments, notably the 2015 Sustainable Development Goals that are also important national socio-economic development priorities.

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PREFACE

This report is a synthesis of findings undertaken at the national level by national consultants over a 16-month process. The National Capacity Self-Assessment (NCSA) served to ensure that the validity of the information, perspectives, and expectations on the country's ability to meet both national and international environmental priorities and obligations. The information contained in this report is drawn largely from the three Thematic Assessment Reports prepared by the three national consultants, and complemented by additional published reports (Raharinjanahary, 2014; Randrianjafison, 2014; Ramamonjisoa, 2014). Unlike the Thematic Assessment Reports that are not cited, the additional published reports are cited to serve as additional supporting evidence of the analysis.

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ABBREVIATIONS AND ACRONYMS

To minimize confusion, abbreviations and acronyms are based on the French names.

ADES	**Association pour le Développement de l'Energie Solaire**
ANAE	Association Nationale d'Actions Environnementale
AND	Autorité Nationale Désignée (DNA)
BNC-REDD+	Bureau National de Coordination de la REDD+
BNGRC	Bureau National de Gestion des Risques et Catastrophes
BVPI	Bassins Versants et Périmètres Irrigués
CCNUCC	Convention Cadre des Nations Unies sur les Changements Climatiques (UNFCCC)
CFL	Comité Forestier Local
CIREF	Circonscription Régionale de l'Environnement et des Forêts
CITES	Convention sur le commerce international des espèces de faune et de flore sauvages menacées d'extinction
CNGIZC	Comité National de la Gestion Intégré des Zones Côtières
CBD	Convention on Biological Diversity
CCCD	Cross-Cutting Capacity Development
CCD	United nations Convention to Combat Desertification
COAP	Code des Aires Protégées
CTD	Collectivités Territoriales Décentralisées
DCBSAP	Direction de la Conservation de la Biodiversité et du Système des Aires Protégées
DCC	Direction du Changement Climatique
DGE	Direction Générale de l'Environnement
DGF	Direction Générale des Forêts
DPPSE	Directeur de la Programmation, de la Planification et du Suivi-Evaluation
DRDR	Direction Régionale du Développement Rural
DREF	Direction Régionale de l'Environnement et Forêts
EIE	Etude d'Impact Environnemental
FAO	Organisation des Nations Unies pour l'Alimentation et l'Agriculture
FAPBM	Fondation pour les Aires Protégées et la Biodiversité de Madagascar
FEM	Fonds pour l'Environnement Mondial (GEF)
GEF	Global Environment Facility
GHG	Greenhouse Gas
GRET	Groupe de Recherche et d'Echanges Technologiques
GSDM	Groupement Semis Direct Madagascar
GSPM	Groupe des Spécialistes des Plantes de Madagascar
MECIE	Mise en Compatibilité des Investissements avec l'Environnement
MEEF	Ministère de l'Environnement, de l'Ecologie et des Forêts
MESUPRES	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique
MINAGRI-DR	Ministère de l'Agriculture et du Développement Rural
MNP[1]	Madagascar National Parks
NCSA	National Capacity Self-Assessment
ONE	Office National pour l'Environnement
ONG	Organisation Non Gouvernementale (NGO)
PFN	Point Focal National (NFP)
UNEP	United Nations Environmental Programme
REBIOMA	Réseau de la Biodiversité de Madagascar
REDD	Réduction d'Emission due à la Déforestation et Dégradation des Forêts
REPC	Réseau des Educateurs pour la Conservation
SAGE	Service d'Appui à la Gestion de l'Environnement
SAP	Système d'Alerte Précoce
SNGRC	Stratégie Nationale de Gestion des Risques et des Catastrophes
TBE	Tableau de Bord Environnemental

[1] The official terminology used in French for MNP is in English, and not translated into French

EXECUTIVE SUMMARY

Madagascar is a country with some of the richest biodiversity in the world, while at the same time its citizens are among the impoverished. This contrast results in an often delicate balance between the socio-economic development needs of the people and those of the global environment. The situation has been exacerbated by successive periods of political conflict with high debt and poor economic growth dating back to the 1980s. Nonetheless, the country has achieved improvements in its environmental governance starting in the 1990s, and earned early recognition as a leader in the African region for progressive natural resource policy.

However, much of this momentum has been lost and even some backsliding has resulted from the political crisis that ran between 2009 and 2013. As a consequence, a number of international aid organizations reduced, suspended, or entirely withdrew support to environmental projects and programmes. In addition, government agencies across the environmental sector also experienced severe cuts in funding. Taken together, the effects of the political crisis have resulted in a near-collapse of environmental governance and a dramatic rise in natural resource exploitation as well as a decline in key natural resource-based sectors such as tourism. Following the presidential and parliamentary elections of late 2013, many bilateral and multilateral donors have resumed operations in the country. While this aid will not be able to address all of Madagascar's environmental challenges, it represents an important step back towards the country's ability to meet its obligations under the various multilateral environmental agreements (MEAs) to which Madagascar is party.

At present, Madagascar is struggling to fulfill many of the objectives set forth in the Rio Conventions. Biodiversity is threatened by habitat loss resulting from heavy deforestation, along with over-exploitation and hunting. Not only is the increase in mining activity in the country is prompting concerns about the extractive activities, there are also concerns about the associated settlements that encroach on natural habitats. While the country has established an extensive protected areas network covering 6.9 million hectares, the unprecedented increase in natural resource exploitation and destructive activities like slash-and-burn agriculture jeopardize the country's natural wealth and create insecurities for local populations with regard to food access, health, and livelihoods.

Madagascar is also one of the most vulnerable countries in the world from climate change impacts that affects human and non-human populations alike. Changing rainfall patterns are expected to have adverse consequences for the country's unique rainforests and the various species that inhabit them. Sea-level rise and increasing numbers of extreme weather events threaten coastal communities and ecosystems alike. Ocean acidification and warming are already having profound impacts on Madagascar's unique coral reef ecosystems, and shifting ocean currents threaten fish populations and the migration routes of a number of species such as turtles and whales. Climate change will also negatively impact the country's socio-economic development, particularly in areas such as tourism, agriculture, and fisheries.

The overall goal of the National Capacity Self-Assessment (NCSA) is to catalyze national action on the implementation of the United Nations Convention on Biodiversity (CBD), the United Nations Convention to Combat Desertification and Drought (CCD), and the United Nations Framework Convention on Climate Change (FCCC) through an integrated and sustainable programme of capacity development. While details on each of the Rio Conventions are contained in their respective Stock-Taking Reports and Thematic Assessments, this NCSA Final Report serves the purpose of assessing the cross-cutting capacity development issues, in particular their shared priorities, synergies, and areas of divergence. This report also includes a Capacity Development Strategy and Action Plan for implementing the capacity development priorities recommended by the thematic assessments as well as the cross-cutting capacity needs. A third component of the NCSA Final Report is a four-page concept paper on a proposed Cross-Cutting Capacity Development (CCCD) project. The final section of the NCSA Final Report contains annexes with supplemental information related to project implementation and selected guidance material.

Strategically, the NCSA is designed as a broad-based and bottom-up programme of national stakeholder consultations to discuss the underlying root capacity deficiencies, as well as the opportunities to meet national and global environmental objectives. The NCSA also paid particular attention to those capacity constraints and opportunities that cut across the three conventions as well as

the synergies that can be created through joint implementation of MEAs. The NCSA's country-driven approach enables Madagascar to integrate plans for capacity development within broader national sustainable development goals, policies, plans, and programmes.

The NCSA was first approved in 2006, but absorptive capacity challenges and political unrest limited its implementation. In 2012, the project was resurrected at the Government's request, and formally re-started in April 2013. The NCSA project was executed by the Ministry of Environment, Ecology, and Forests, and was overseen by a project steering committee that was comprised of stakeholders from other line ministries.

The NCSA began with the preparation of a stock-taking report for each Rio Convention. These reports were complemented by extensive stakeholder consultations at the national and regional levels in order to identify the priority cross-cutting capacity development needs and actions. Stakeholder consultations also served to foster a common understanding of the three Rio Conventions at the sub-national level, in particular of the linkages between the global and local environment and short and long-term impacts. The NCSA project concluded with a workshop to validate the findings and recommendations for capacity development, and the report was subsequently finalized.

Notwithstanding time and resource limitations, the NCSA team was able to complete broad-based consultations that yielded significant data and information from a cross-section of stakeholder perspectives. While the results of the regional consultations cannot be considered representative of the full set of 22 regions, they provide a good idea of the types of regional perspectives that may be shared by other regions and illustrate contrasts from the national perspective. The resulting analyses and conclusions are therefore considered to reflect a fairly good degree of accuracy in the key priorities with respect to meeting and sustaining obligations under the three Rio Conventions.

At present, the country's degraded and limited infrastructure combined with a low technical and institutional capacity severely limit Madagascar's environmental governance framework and thus its potential to conserve the natural environment, let alone secure long-term benefits from it. Though Madagascar has an extensive policy and legislative framework governing the environment, many of these policies and laws are redundant, vague, outdated, and/or contradictory. Moreover, the sheer number of regulatory instruments and general incoherence of the regulatory system leads to confusion over responsibilities and mandates. Weak technical capacity to draft policies and legislation limit their effectiveness, and it is not uncommon for the staff drafting legislation to be unaware of how that legislation fits into the broader legislative framework. Socio-political crises in recent years have only exacerbated the situation, leading to unprecedented amounts of illegal resource exploitation.

At a sub-national level, Regional Directorates of Environment and Forests (DREF) are responsible for decentralized environmental governance within each of the 22 regions in Madagascar. Communities also have an important role in environmental management at the local level that is supported through the current legal system. However, communities often lack the capacity, resources or rights that are necessary to effectively fulfill this responsibility. Considerable friction between the central level, the regional level, and the interests and realities of local communities limits potential synergies. Inadequate communication and information sharing between the central and regional levels also remains a primary organizational capacity constraint to implementing the Rio Conventions.

Not only is there poor communication and coordination between central and regional levels, but key ministries also need to harmonize actions internally as well as with each other. Limited budgets, insufficient numbers of properly trained staff, as well as few incentivized opportunities for technical training hinder the effectiveness of most environmental institutions. These inefficient institutional arrangements combined with overlapping and poorly defined mandates, as well as leadership challenges have resulted in a great deal of confusion and inefficiency. While structures like the environmental units in line ministries could help coordinate action between ministries and improve cross-sector communication, in practice, they have been largely underfunded and often lack the capacity, organization, and training opportunities that are needed to create strong and lasting institutional memory.

Another key cross-cutting constraint is low awareness of critical environmental issues and the linkages with socio-economic development. This is particularly troublesome amongst policy and decision-

makers at the central and regional levels; however awareness amongst other stakeholders in civil society, the private sector, media, research institutions and local communities could also be improved, particularly with regard to the Rio Conventions.

Although numerous research organizations and research-supporting partnerships exist in Madagascar, there is a need for stronger ties between scientific research and policy- and decision-making. Often local government agencies do not have enough technically trained staff to collect all the data and information needed to support policy and decision-making.

Madagascar also benefits from a number of environmental data clearinghouses that are managed by various institutions. However, given the current institutional arrangements, data and information sharing between and within agencies remain relatively poor. In general, technical, material, and financial capacities are low for state and non-state actors alike, and there is a need to standardize methodologies for data collection and processing to make it more accessible to stakeholders.

Madagascar has created a number of environmental monitoring and reporting systems to measure environmental degradation and the effectiveness of conservation activities. However there are gaps in monitoring, technical capacity, and funding. In general, there is a need for greater overall coordination and synchronization of the various monitoring systems that exist.

While there is a strong tradition of community-based natural resource management in Madagascar, participation in the policy formulation process itself is limited. Stakeholder engagement is often seen as a form of tokenism since communities often lack the power and/or ownership rights to influence development plans or outcomes. Furthermore, factors such as fragmented governance and monitoring, limited access to the scarce information that exists, the cost and complexity of the legislative system, and large geographic distances between communities and decision-making centers restrict the amount of real public engagement that takes place.

Civil society has an increasingly active role in Madagascar's environmental sector, and has played a key role in advocacy and awareness-raising although participation is uneven needs to be better coordinated. Key challenges for civil society include poor financial sustainability, duplication of roles, and limited geographical coverage and representative functions.

The GEF and UNDP play an important role in strengthening Madagascar's capacities to meet obligations under the three Rio Conventions. In addition to the NCSA, GEF is financing a number of other projects with UNDP as the implementing partner. This includes the GEF Small Grants Programme that has been in operation in Madagascar since 2004, having disbursed over US$ 4.2 million through 203 projects throughout the regions.

In addition to UNDP, the World Bank and United Nations Environmental Programme (UNEP) are the two other GEF Implementing Agencies that are supporting global environmental projects in Madagascar. Numerous other bilateral and multilateral donors are similarly making important contributions to the country's sustainable development. Given the number of development partners, there is a need for a more structured coordinating system that would streamline and track funding to improve transparency and opportunities for synergies across sectors.

The Capacity Development Strategy outlines an approach by which the recommended capacity development actions may be undertaken in a synergistic manner that is aligned with national development goals. Much as with other least developed countries, Madagascar's primary goal is to reduce poverty. Given that the global environment is impacted by local environmental and development conditions, implementation of this Capacity Development Strategy calls upon the international community to support actions that Madagascar's pursuit of environmentally sound and sustainable development. The recent return of the international donor community is an important opportunity for the GEF to leverage benefits for the global environment. The Capacity Development Strategy is complemented by an Action Plan that outlines the set of priority thematic area and cross-cutting capacity development actions to be implemented.

The Capacity Development Action Plan would be implemented through a strategic assessment of the Government of Madagascar's overall environmental programme and current portfolio with particular attention to issues of complementarity, synergies, partnerships, stakeholder involvement, resource mobilization, absorptive capacity, and importantly political commitment. Key decision-makers would

then organize and prioritize the programming of capacity development actions. Importantly, the recommended capacity development actions, both thematic and cross-cutting, are actions that should also find themselves within thematic projects and be integrated into non-GEF projects being developed and implemented by other development partners. The time frame for these actions is not pre-determined and would remain legitimate until superseded by some alternative, more recent national environmental strategy.

The lead government institution envisaged to oversee implementation of the Capacity Development Strategy and Action Plan is the Ministry of Environment, Ecology and Forests, in close consultation and coordination with other key ministries, such as those covering issues of finance, land management, agriculture, rural development, and energy. Structures created under the NCSA, such as the Project Steering Committee could be used to give direction and facilitate the implementation process. The technical working groups would provide technical inputs into strategic programming of the thematic as well as cross-cutting capacity development actions.

Monitoring and evaluation of the capacity development actions would be first carried out by the M&E processes of the individual projects with the purpose of informing the strategic re-alignment of existing and planned interventions. This would ensure that the allocated resources in both financial and human resources are being effectively used. Given the existing mandate of the Directorate of Planning, Programming, Monitoring and Evaluation of the MEEF, this directorate and ministry is expected to continue serving as the administrative agency to oversee monitoring and evaluation of the MEAs, and would ensure an overall strategic allocation of resources across the portfolio of environmental conservation projects.

The communication strategy is premised on the principle that the progress being made as well as on-going challenges and barriers must be communicated broadly and as widely as possible. This is to facilitate the on-going identification of opportunities for continued improvements, synergies, partnerships, and buy-in. Communicating the results and findings will also be an activity that would be financed by the communication activities of existing programmes and projects. These should be broadened to include relevant lessons learned and best practices and target a range of stakeholders. These should include private sector representatives, rural communities, development partners, and policy and decision-makers to engage them in the consultative process of project design and implementation.

In the short-term, funding is required to bridge the good practice approaches , however it is important that the resource mobilization strategy is not limited to securing only international (bilateral and multilateral) donor resources; it must also leverage financial resources from government budgetary resources. The resource mobilization strategy is to be complemented by the monitoring and evaluation process, with briefings and consultations with parliamentarians and other key policy-makers in order to develop champions in support of financial allocations to environmental mainstreaming. This includes securing the commitment of the existing and future budgets of line ministries to also allocate resources for environmental mainstreaming. Importantly, resource mobilization should also take into account the resources available for implementing capacity development actions at the sub-national level.

For resource mobilization to be effective and sustainable, capacity development actions include the training of individuals to prepare multi-disciplinary proposals and related resource mobilization skills. Specific measures should be taken to promote partnerships with a view to mobilize resources from various potential donors. These measures should enhance the integration of MEAs into national development plans and improve the capacity of key actors to mobilize donor financing for MEA implementation.

The Capacity Development Action Plan is effectively in two parts: the first is for capacities to be developed within the construct of thematic projects, whether they are funded by the GEF or by other donors; and secondly by a cross-cutting capacity development project. The Action Plan does *not* prioritize the actions because institutional contexts may be different for each action. Furthermore, due to a changing socio-economic and environmental landscape, not to mention political landscape, the priority of actions may change.

The actions undertaken will focus on developing key individual, institutional, and systemic capacities to support the synergistic implementation of the Rio Conventions as well as to sustain the ensuing global environmental outcomes. Systemic capacities will help address the over-arching policy and legislative frameworks that serve to legitimize, validate, and reinforce conservation efforts as well as help ensure the sustainability of the capacities developed and the outcomes that were produced. Institutional capacities target the strengthening of organizational structures and mechanisms that are needed to operationalize policies and legislations. Individual capacities are the technical skills and expertise of individual actors to put into action better practices for environmental conservation and associated activities.

The thematic capacity development actions presented here are not a verbatim reporting of those identified in their respective NCSA Thematic Assessment Reports, but rather a summary and synthesis to convey the main essence of the priorities. The Thematic Assessment Reports should be consulted directly for further details on the specific thematic capacity development actions that are recommended. The cross-cutting capacity development actions on the other hand were developed on the basis of a one-day technical meeting and working group sessions. These cross-cutting capacity development actions, as mentioned above, are not ranked since changing contexts could result in shifting rankings. Rather, the cross-cutting capacity development actions serve as a basis for legitimizing country-driven bottom-up interventions.

A. INTRODUCTION

1. With an approximate population of 23 million inhabitants, of which 67.43% live in rural areas, Madagascar is both one of the world's most rapidly growing populations and one of the least developed countries in the world. In 2012, the annual per capita income in 2012 was estimated at US$ 443 and the adult literacy rate was 64.5% (World Bank, 2014). Madagascar ranks 155 out of 187 countries, with a Human Development Indicator of 0.498 in 2013 (UNDP, 2014). While the country's natural wealth lies primarily in its significant mineral resources (which includes cobalt, gold, ilmenite, nickel, oil, uranium, and rare earths), agriculture is the country's main source of income. Indeed, the country's varying climate and soil types allow for a relatively high degree of agricultural diversification, and taking into account livestock rearing, accounts for about 70% of the country's total land area as well as about 70% of the labour force.

2. During 2003 and 2004, the economic situation was marked by a depreciation of the local currency, resulting in a high inflation rate and a significant rise in the country's main dietary staple of rice. The increase in the price of oil reinforced this inflationary trend. Poverty increased from 73.6% to 83.1% between 2003 and 2011, with 71.5% of households lived under the national poverty lie in 2012. Positively, the country saw a decline in gender inequality between 2011 and 2013.

3. Between 2002 and 2009, Madagascar experienced improved processes of public affairs and governance. A least developing country with less than US$ 2 daily per capita income, Madagascar is also one of the most heavily indebted and poverty stricken countries. By 2006, the implementation of the Poverty Reduction Strategy Paper contributed to Madagascar having achieved a number of critical poverty reduction milestones, which included participating in both commercial and bilateral debt-for-nature swaps, and a commitment to allocate a portion of its debt relief savings to the environmental sector.

4. However, a political crisis in early 2009, with protests of increased restriction on opposition press and activities, led to a coup d'état, with the President handing power over to the military. As a result, a number of international aid organizations reduced, withdrew, or froze their support. New presidential and parliamentary elections were peacefully and legitimately held in late 2013 with observation by the international community, and the elected officials formally confirmed by Madagascar's electoral commission in early 2014. The political crisis contributed to an important loss of political and institutional momentum with respect to environmental conservation.

5. A strong dependence on natural resources explains the main threats on the environment. While thermal energy has become the primary source of power production, almost 95% of Malagasy households use firewood and charcoal for their domestic energy needs. The earnings of most rural households depend almost exclusively on inefficient agricultural productivity (comprised of largely of traditional food crops) and related activities. Inefficient productivity together with population growth has accelerated agricultural expansion, largely through the conversion of primary forests into slash-and-burn cultivation systems. Extensive income-earning cultivation for exports has also exacerbated land degradation through unsustainable and unfriendly land management practices. Deforestation-related land degradation includes illegal logging and the trade of rosewood trees exported to China that has increased significantly since 2009. Moreover, frequent natural disasters such as hurricanes and flooding have aggravated food insecurity. Taken together, these threats have resulted in the loss of more than 80% of the country's original forest2, with the remaining forest most likely to disappear within the next 25 years at current rates.

6. The human-ecologic dynamic is thus severely resulting in a lowered capacity of Madagascar to sustainably manage its natural resources. The significant decrease of bilateral and multilateral aid in recent years only served to further limit the country's ability to make development progress, in particular to meet obligations under various multilateral environmental agreements.

7. For many years, Madagascar has recognized its important role in the global community with respect the management of its sovereign resources for the benefit of both its citizens and the global

[2] This is figure is disputed in the literature and among different stakeholders. The 2013 World Bank study offers one interpretation of the difference in these statistics.

community. Madagascar has been a Party to the Convention on Biological Diversity by ratification on 4 March 1996. Land degradation being a very important environmental and developmental issue, Madagascar next ratified the Convention to Combat Desertification and Drought on 25 June 1997. Two years later, on 2 June 1999, Madagascar ratified the United Nations Framework Convention on Climate Change, and subsequently the Kyoto Protocol on 24 September 2003.

A.1 Biodiversity

8. Madagascar's biodiversity exemplifies a high degree of endemism among its very diverse landscapes and ecosystems. These include coral reefs and mangroves, wetlands, forests, drylands and savannahs, and freshwater lakes and rivers. Examples of the country's endemism include between 13,000 and 14,000 floral species, of which about 80% is endemic. There are also very high levels of endemism of reptiles, amphibians, birds, fish, mammals, and lemurs. Many of these species are found only in Madagascar, and thus represent 100% endemism. However, many of the forest-dweller species are at risk from anthropogenic activities, in large part from deforestation that is a major issue in Madagascar. Between 50 and 80% of the Madagascar's original forest cover remains, with the primary forests remaining estimated to cover as little as 12%[3]. In recent years, however, the deforestation rate is decreasing, ranging from as low as 0.1% per year inside protected areas to as high as 0.6% per year for low altitude dry and spiny forests[4]. Due to the country's high level of endemism, the impact of deforestation translates into a significant impact on the loss of global biodiversity (MEEF, 2014).

9. The loss of biodiversity is largely anthropogenic in origin, mostly through deforestation, over-exploitation, and hunting. Driven by poverty and socio-economic demands, deforestation is largely the result of an increasing population that is expanding their small hold agriculture and charcoal production. Mining is also an increasing contribution to the loss of biodiversity, with its expansion by multinationals and large corporations, as well as from small-scale mining operations. In addition to impacts resulting from extractive activities, the environment is also negatively affected by the human settlements that are associated with mining (CBD, 2013).

A.2 Land Degradation

10. Land degradation is a major ecological issue in Madagascar; it threatens the country's vast biodiversity as well as local populations by causing insecurities in food access, health, and livelihoods[5]. As much as 31% of the country is affected by land degradation as a result of human activities (World Bank, 2013). Unsustainable agricultural activities (i.e., slash and burn agriculture) and the collection of fuel wood are two primary drivers of land degradation accounting for 80-95% and 5-20% of deforestation respectively. While there is some debate about the exact number of hectares lost to deforestation, it is widely agreed that forests area has declined steadily as a result of human activities. On the other hand, there is also general consensus that national deforestation rates have declined since 1990 (Clark, 2012; World Bank, 2013; Scales, 2014). Today, approximately 9 to 11 million hectares remain, and the majority of the forest is contained within the national protected area network that accounts for 12% of the national land area (World Bank, 2013). In addition to causing an increase in carbon emissions, deforestation leads to habitat loss, soil erosion, flooding, contamination, and landslides. Furthermore, slash-and-burn techniques effectively endanger rural food security by reducing soil fertility and thus agricultural productivity. Madagascar already has one of the poorest soil productivity levels in the world (Cherel-Robson & Bart, 2003).

A.3 Climate Change

11. Madagascar is ranked the 5th most climate change vulnerable country in the world, as such, the country will be impacted in a variety of ways (World Bank, 2013). Rainfall patterns are expected to change which will have adverse consequences in the country's unique rainforests and the various

[3] Various reports and studies quote different rates of deforestation and biodiversity loss. The accuracy of data and other development statistics remain a barrier to making informed policy and management decisions.
[4] There are various estimates of Madagascar's remaining forest cover, depending on the study.
[5] Around 75% of the population is dependent on natural resources for livelihood activities (World Bank, 2013).

species that inhabit them. For example, survival rates of certain species of lemurs are already being affected. The country is also facing threats of sea-level rise and weather events that are increasingly stronger and more frequent (World Bank, 2013). This poses increased challenges to coastal communities and threatens coastal mangrove and wetland areas with flooding and erosion. Ocean acidification and warming are having deleterious effects on Madagascar's unique coral reef ecosystems. For example, in 2005 warm ocean temperatures resulted in bleaching of up to 80% of the coral on the north-east coast of Madagascar. Furthermore, shifting ocean currents threaten fish populations and the migration routes of a number of species in the region such as whales and turtles (Conservation International; World Wildlife Fund, 2008). All of these changes will almost certainly pose further challenges to the country's socioeconomic development particularly in areas such as tourism, agriculture, and fisheries.

12. Despite the severity of climate change impacts in Madagascar, the country itself has contributed relatively little to the cause of the problem. The country's total and per capita greenhouse gas emissions are both low at 2,250 metric tons and 121kg/person respectively (according to 2007 data) (Andrianjaka, 2010). While not an issue of emissions *per se*, the gradual and steady decline of forested areas that accounted for 21.6% of the nation's land area in 2010 also represents a lost carbon sink. One of the largest drivers of deforestation in the country is wood's role as the primary fuel for households (Andrianjaka, 2010). In an effort to address deforestation and other climate change related issues, Madagascar is participating in UN programmes such as REDD+ and the Clean Development Mechanism. Notwithstanding the high stakes of climate change, the country still lacks the data, institutions, and policies that will be necessary to address all of the potential social, economic, and environmental effects (World Bank, 2013).

A.4 Report Structure

13. The structure of this report is informed by the guidance provided under the National Capacity Self-Assessment Resource (NCSA) Kit and the lessons learned from a review of past NCSAs in the NCSA Synthesis Report. While details on each of the Rio Conventions are contained in their respective Stock-Taking Reports and Thematic Assessments, this NCSA Final Report serves the purpose of assessing the cross-cutting capacity development issues, in particular their shared priorities, synergies, and areas of divergence.

14. In addition to being informed by the NCSA Thematic Studies, the policy and institutional analysis in this report is informed by a number of other published reports and studies. Notwithstanding, consultations with stakeholders and a number of development partners in Madagascar in September 2014 shared the view that a more in-depth policy and institutional analysis of Madagascar is a high priority. This report includes a strategy for implementing the capacity development priorities. The strategy outlines that the process by which Madagascar could approach the implementation of the capacity development priorities that were recommended, both through the thematic assessments, as well as the cross-cutting capacity needs.

15. A third component of the NCSA Final Report is a three-page concept paper on a proposed Cross-Cutting Capacity Development (CCCD) project, which was developed into a GEF Medium-Size Project proposal (Project Identification Form – PIF). During the finalization of the NCSA, bilateral consultations were undertaken to identify preliminary sources of co-financing for the CCCD project.

16. The final section of the NCSA Final Report comprises the annexes. In addition to providing supplemental information related to project implementation, such as stakeholders consulted, selected guidance material is provided. This includes an overview of adaptive collaborative management by which all development projects should be structured, summaries of CCCD projects, and the Capacity Development Scorecard that serves to introduce planners of the types of indicators to be measured to assess the achievement and sustainability of capacity development outcomes.

B. ASSESSING MADAGASCAR'S PRIORITY CAPACITIES

17. The GEF Secretariat and UNDP launched the Capacity Development Initiative (CDI) in 2000 as an 18-month consultative process to identify countries' priority issues and capacity development needs in support of implementing the Rio Conventions. The result was the Strategic Approach to Enhance Capacity Building approved by the GEF in November 2003, which outlined a set of operational principles for building capacities leading to effective management of global environmental issues. Of the four pathways proposed in the Strategic Approach, Pathway 1 was the National Capacity Self-Assessments that has been the focus of GEF capacity building support since October 2005. Also in 2005, the GEF Secretariat established the Global Support Programme (GSP), with UNDP and UNEP providing management support to countries undertaking NCSAs.

The goal of the NCSA was to catalyze national action to implement obligations under the three Rio Conventions

18. In addition to the NCSAs, the GEF supports capacity building efforts through three other pathways. Pathway 2 is through regular GEF projects; Pathway 3 is for targeted, free standing cross-cutting capacity development projects; and Pathway 4 that was targeted to strengthening cross-cutting capacities for Least Developing Countries (LDCs) and Small Island Developing States (SIDS). As a direct follow-up to the NCSA process, the GEF provides additional financing through their corporate programme on capacity development for Pathway 2 projects that demonstrate their strategic value through the GEF-6 Cross-Cutting Capacity Development (CCCD) Strategy. These projects are intended to capitalize on opportunities and create cost-effective synergies to meet the dual objectives of national and international priorities and obligations.

19. The overall goal of the National Capacity Self-Assessment (NCSA) was to catalyze national action to implementing the United Nations Convention on Biodiversity (CBD), United Nations Convention to Combat Desertification and Drought (CCD), and the United Nations Framework Convention on Climate Change (FCCC) through an integrated and sustainable programme of capacity development. Strategically, the NCSA was developed as a programme of broad national stakeholder consultations to critically discuss the underlying root capacity deficiencies, as well as the opportunities, to meet national and global environmental objectives. In addition to focusing on the three Rio Conventions, the NCSA also paid particular attention to those capacity constraints and opportunities that cut across the three conventions as well as the synergies that can be created through joint implementation of multilateral environmental agreements.

The NCSA was designed as a bottom-up and broad-based consultative process

20. The legitimacy and sustainability of the capacity assessment and recommendations is dependent on being an integral part of the country's broader national development policies, plans and programmes. For this reason, the NCSA approach was specifically designed as a bottom-up and broad-based consultative process. The resulting findings are intended to identify a more effective approach to incorporate environmental issues into national development processes and sectoral planning and decision-making. Importantly, the NCSA set out to raise awareness and identify the particular capacity needs of key constituency groups and decision-makers during the consultation and assessment processes, and to focus on the capacities needed to help Madagascar meet its global environmental obligations and national sustainable development goals. The process is intended to catalyze a more effective implementation of existing environmental laws and policies by exploring their global environmental dimension, encouraging dialogue across thematic areas, and strengthened information sharing and collaboration.

21. The objectives of the NCSA were:

- To identify, confirm or review priority issues for action within the thematic areas of biodiversity, climate change, and land degradation (desertification and drought);
- To explore related capacity needs within and across the three thematic areas;
- To catalyze targeted and coordinated action and requests for future external funding and assistance; and

- To link country action to the broader national environmental management and sustainable development framework.

22. To this end, the NCSA consultative and analytical process called for:

- Taking stock of past and on-going activities for to conserve biodiversity, address climate change issues, and combat land degradation;
- Assessing and analyzing capacity strengths, weaknesses, and gaps to address the global environmental issues;
- Analyzing capacity development constraints that cut across the three thematic areas;
- Formulating a strategy and action plan to address prioritized thematic and cross-cutting capacity development needs;
- Developing a monitoring and evaluation plan to promote the implementation of the action plan; and
- Applying an adaptive collaborative management approach to the implementation of the NCSA, wherein broad-based consultations include representatives of a diverse set of stakeholders.

C. NCSA METHODOLOGY

23. The National Capacity Needs Self-Assessment for Global Environmental Management was a GEF global programme designed for countries to analyze their capacity strengths, constraints and needs, and to recommend capacity development actions to address them, with a special focus on the three international environmental conventions developed and negotiated in Rio de Janeiro, Brazil in 1992, namely the CBD, the FCCC, and the CCD.

24. The GEF designed the NCSA process as a country-driven approach that enables countries to integrate their plans for capacity development in improved management of the global environment within broader national sustainable development goals and programmes. This integration is intended to secure follow-up to the NCSA, and ensure that the NCSA leads to measurable improvements in environmental management at both global and national scales. A UNDP/GEF study of NCSA projects identified three key principles underlying the success of the NCSA: political leadership, using champions, and having good communications. These were found to be catalytic in the successful implementation of the NCSAs, and that sustainability was more likely to be achieved through high level political commitment.

25. The NCSA project adopted a set of guiding principles and approaches to strengthen the sustainability of project outcomes.

a) Build on existing consultative and coordination mechanisms
b) Multi-stakeholder participation
c) Coordination with other projects
d) Build on past and on-going activities
e) Adopt a long-term approach
f) Employ a holistic approach

The NCSA approach is to catalyze a country-driven approach to integrate capacity development for improved management of the global environment within national sustainable development frameworks

C.1 Institutional Arrangements

26. The NCSA project was executed by the Ministry of Environment, Ecology, and Forests. A small NCSA Project Unit was established consisting of a Project Manager and Project Assistant. The Project Manager also served as the technical consultant for climate change, while two additional national technical consultants were recruited to lead the analyses on biodiversity and desertification and drought (land degradation). The NCSA Project Management Unit undertook its work under the supervision of the Director of the Directorate of Programmes, Plans, Monitoring and Evaluation under the MEEF.

27. The NCSA was first approved in 2006, and for the next three years had very challenging absorptive capacities for implementation. This was further compounded by the political unrest in 2009, leading to the temporary cancellation of the project in 2011. The project was resurrected in early 2012

at the Government's request, and formally re-started in April 2013. Between April and August 2013, the Project Management Unit was established, with UNDP and MEEF agreeing that implementation would be assured with international expertise to provide technical guidance. This resulted in the recruited of an international consultant who provided technical support between September 2013 and September 2014. The NCSA project was overseen by a national project steering committee that met three times over the 16-month implementation period. This committee was chaired by the Secretary-General of the Ministry of Environment, Ecology, and Forests, with membership comprising Ministry of Water, Ministry of Agriculture and Rural Development, Ministry of Energy, Ministry of Strategic Resources, Ministry of Industry, Private Sector Development and Small- and Medium-Enterprises, and UNDP.

28. The NCSA began its work with the preparation of three stock-taking reports, one for each of the three Rio Conventions. Special attention was given to mapping out the national institutional arrangements that are implicated in environmental management. The next stage of the NCSA revolved around understanding the challenges, opportunities and other issues relevant to Rio Convention implementation at the sub-national level. Specifically, these consultations were to ensure that regional stakeholders' environmental concerns and socio-economic priorities were sufficiently understood within the context of the country's global environmental obligations. A dual purpose of the regional consultations was to enhance a common understanding of the implementation of the three Rio Conventions at the sub-national level, in particular of the linkages between the global and local environment contexts, in particular impacts both short- and long-term. To that end, consultations and regional workshops6 were conducted in two of the country's 22 regions: Alaotra Mangoro (32,000 sq. km and an estimated population of 878,000) and Atsimo Andrefana (19,000 sq. km and an estimated population of 621,000).

29. One of the outcomes of the regional consultations is to identify the priority cross-cutting capacity development needs to catalyze environmental sustainability within the framework of the Rio Conventions and national sustainable development priorities. Following the regional workshops, a national technical workshop of stakeholders was undertaken in June 2014 to identify priority actions at the national level to inform the analyses for the three Rio Convention thematic reports. A second and final technical workshop was convened in September 2014 to finalize the key capacity development challenges and opportunities as they relate to the draft recommended actions under each of the three Rio Conventions and those that cut across all three.

30. The preparation of the thematic studies and the NCSA Final Report included a desk review of potential sources of financing to implement recommended priority capacity development activities. The Capacity Development Strategy and Action Plan does not prioritize one recommended action over another, as all recommended actions are of priority. Instead, the financing of capacity development priorities will be determined on the basis of consultations with development partners and stakeholders to strategically select and plan development efforts in the short-term. In this vein, the implementation of a subset of the recommended capacity development activities form the basis of the Concept Paper outlined in Chapter G.

31. Consultations with various donor organizations in Madagascar at the end of the NCSA project served to gauge their interest as development partners to the implementation of recommended cross-cutting capacity development actions. The latter is premised on the recognition and understanding that the development of capacities to meet and sustain global environmental benefits rests on the need to strengthen sustainable socio-economic development, an objective that Madagascar must undertake in its own national interest, and for which GEF financing is ineligible.

National stakeholders identified cross-cutting priority actions and key capacity development challenges to meet and sustain Rio Convention thematic obligations

[6] The workshop in Alaotra Mangoro was held in February 2014, while the workshop in Atsimo Andrefana was held in April 2014.

32. Due to the GEF requirement of leverage co-financing, the feasibility of a follow-up CCCD project is contingent on this interest in the Project Identification Form (PIF), and subsequently in the Medium-Size Project Document. The NCSA project concluded with a workshop to validate the findings and recommendations for capacity development, and the report was subsequently finalized

C.2 The Consultative Process

33. The consultative process was not without its challenges and achievements. The scarcity of time, limited financial resources, together with a vast geography of the country, made convening in each region impractical. Notwithstanding, the broad-based consultations undertaken by the NCSA team under these limitations still provided significant data and information from a cross-section of stakeholder perspectives. The resulting analyses and conclusions are therefore considered to reflect a fairly good degree of accuracy in the key priorities with respect to meeting obligation under the three Rio Conventions.

34. Although only two of the 22 regions were included in the participatory process, the results revealed clear regional perspectives that contrasted with the national perspective. While the results of the regional consultations can not be considered representative of the full set of 22 regions, they provide a good idea of the types of regional perspectives that may be shared by other regions, although the priorities may be ranked differently.

35. This includes information on the greater specificity of environmental issues on the ecosystem and landscape levels; the various impacts of climate change; human and natural pressures on biodiversity; various stages of land degradation; and the differences in the dynamics of actors including collaboration among stakeholders among regions. Capacity development at the regional level will require that they be tailored to the specific region.

D. KEY CROSS-CUTTING CAPACITY DEVELOPMENT CHALLENGES

36. This section summarizes the key findings of the NCSA project on the strengths, weaknesses, opportunity, threats, and gaps to meet national obligations under each of the three Rio Conventions. These findings are the result of extensive consultation, both at the national and sub-national levels, and discussions among a cross-section of national experts to reconcile differing opinions on the country's environmental management efforts. Details of these findings can be found in the individual thematic reports that both inform and complement this report.

The NCSA determined that Madagascar faces many of the same capacity challenges and opportunities to implement all three Rio Conventions

37. In undertaking the assessment of the capacities needed to implement each of the Rio Conventions, many of the same capacity constraints and opportunities were found to apply to all three. As a least developed country, Madagascar faces especially difficult challenges in strengthening the necessary institutional capacities as the priority of economic development and poverty reduction stretches the country's thin resources. This has meant that Madagascar has not been able to capitalize on the economies of scale that can be achieved through the upfront investments in research and development, based on the linkages between poverty and environmental degradation.

38. The loss of biodiversity, climate change and land degradation are complex and interacting environmental phenomena, both spatially as well as temporally. Each is a complex dynamic system of a problem that arises from human-ecological interaction. Managing this relationship to reduce the negative impacts on the environment not only requires targeted action to change resource consumption and management, but also requires a more broad-based approach of modifying underlying perceptions, values, and attitudes that frame our relationship with our environment. As our environment transcends the bounded construct of the three Rio Conventions, many of the management responses will also help meet Madagascar's obligations under other multilateral environmental agreements.

39. Thus, in addition to the targeted capacity actions identified to address each of the Rio Conventions, there are a number of these capacity development actions that are cross-cutting, and provide a unique opportunity to create synergies and economies of scale. This is especially critical in a context of high poverty such as that found in Madagascar and the country's dependence on its natural resource base for both everyday needs and economic growth.

The identification of cross-cutting capacity development actions in the context of high poverty presents a unique opportunity to create synergies and economies of scale

D.1 Environmental Governance

40. Madagascar presents a precarious situation in which it hosts an invaluable proportion of the world's biodiversity (approximately 5% of known species and as much as 80% endemism) while at the same time, its citizens are among the poorest in the world with over 70% below the national poverty line (Dabire & Zouhon Bi, 2014). As a result, the country is challenged to find a delicate balance between human and environmental needs. Madagascar has suffered from the effects of prolonged periods of political conflict and associated poor economic growth dating back to the 1980's (WAVES National Steering Committee, 2014). According to the 2013 World Bank Madagascar Country Environmental Analysis, "Successive periods of political unrest have created power vacuums within which there has been a near-total collapse of environmental governance leading to natural resource exploitation and dramatic reductions in revenues from tourism and other key natural resource based sectors*"* (World Bank, 2013). This report suggests that climate change, high population growth, stagnant economic growth will only complicate matters in the years to come (World Bank, 2013).

With tremendous biological diversity and widespread severe poverty, Madagascar faces the challenge of forming a delicate balance between human and conservation needs

41. At present, the country's degraded and limited infrastructure combined with a poorly qualified workforce severely restrict the extent to which Madagascar can manage and secure benefits from its natural capital (World Bank, 2013). Moreover, while protected areas have been established to protect the country's natural resources, political crises in recent years have prompted governance failures and a preponderance of illegal logging, hunting, and extraction of endangered species such as lemur and tortoise species. Additionally, most fisheries appear to be in decline as a result of overfishing, habitat destruction, and pollution. Not only does the political instability highlight the underlying fragility of Madagascar's environmental governance framework in terms of financial sustainability as well as institutional memory, but it also has the detrimental effect of undermining previous achievements and investments while hamstringing the country's ability to plan for the future (World Bank, 2013). Notwithstanding, Madagascar made one concrete step towards a resolution of the five-year political crisis by holding presidential and parliamentary elections in the final months of 2013 that international observers declared free and fair (Dabire & Zouhon Bi, 2014; WAVES National Steering Committee, 2014)

Policies and legislative frameworks

42. Despite the challenges it faces, Madagascar has acknowledged the environmental threats that it faces and demonstrated a desire to address them through the preparation of various programmes, policies, plans, and strategies as well as the ratification of numerous multilateral environmental agreements (See Table 1). One of the first steps the Government of Madagascar took to improve its environmental governance was to develop and implement the *Environmental Charter* [7] and the *National Environmental Action Plan* (NEAP) in the 1990s. The NEAP's set an objective that "natural resources are conserved and wisely utilized in support of sustainable economic development and a better quality of life" and established the principle of community-based natural resource management as central to the country's natural resource management policy (World Bank, 2013). The timing of these documents coincided nicely with the Rio Summit in 1992 which added momentum to environmental policy development. The subsequent preparation of progressive and innovative policy statements such as the *Durban Vision* and *Madagascar, Naturellement* earned the country a reputation as a leader in natural resource policy in the African region (Corson, 2014).

43. While Madagascar's initial laws and regulations focused on biodiversity conservation and forest management, the country's legislative framework has evolved over the last 20 years to include most current environmental and natural resource management issues (World Bank, 2013). Madagascar's 2010 Constitution calls for the protection of the environment through

Madagascar's Environmental Charter and National Environmental Action Plan exemplify the country's highest political commitment to improve environmental governance

[7] The Charter acts as the legislative framework for NEAP implementation, and is currently being updated.

various articles, in particular Article 141, which states:

> *Regional and local authorities are to provide, with the help of the state, public security, civil defense, administration, land use planning, economic development, environmental conservation and improved standard of living.*

Table 1: Selected Multilateral Environmental Agreements to which Madagascar is party[8]

MEA	Year
Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)	1975
Vienna Convention for the Protection of the Ozone Layer	1996
Montreal Protocol on Substances that Deplete the Ozone Layer	1996
Convention on Biological Diversity	1996
United Nations Convention to Combat Desertification	1997
Conservation of Wetlands of International Importance (Ramsar Convention)	1999
Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal	1999
United Nations Framework Convention on Climate Change	1999
United Nations Convention on the Law of the Sea	2001
Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer	2002
Cartagena Protocol of the CBD	2003
Kyoto Protocol to the FCCC	2005
Stockholm Convention on Persistent Organic Pollutants	2005
International Treaty on Plant Genetic Resources for Food and Agriculture	2006
Convention on the Conservation of Migratory Species of Wild Animals	2007
Agreement on the Conservation of African-Eurasian Migratory Waterbirds	2007
Nagoya Protocol to the FCCC	2014

44. Using the *Environmental Charter* and NEAP as a starting point, Madagascar went on to prepare numerous other national policies, plans, and strategies that would establish the country's first environmental institutions and a framework to coordinate government and external partner interventions in the environmental sector as well as address the country's MEA obligations. These initial documents laid the groundwork for the country's environmental management framework for the next 20 years (World Bank, 2013). These include the *National Action Plan to Combat Desertification and Drought*, the *Forest Policy*, the *National Policy on Land* (2005), the *National Action Plan for Climate Change Adaptation in Madagascar* (2006), and the *National Education Policy on the Environment for Sustainable Development (2013)*. See **Erreur ! Source du renvoi introuvable.** for a selection of key legislative instruments governing the environment and natural resources. The 2003 *Durban Vision* was a crucial document that established a clear national policy on protected area network as well as goals to grow the network. The report *Madagascar, Naturellement* of 2004 provided a high-level vision for national development that addressed environmental considerations as well.

45. Up until recently, environmental issues where given high status and a prominent place in the Government's development agenda. For example, environment issues were a strong component of the *National Poverty Reduction Strategy*, and the *National Strategy for the Sustainable Management of Biological Diversity* was revised in 2007 to align with the *Madagascar Action Plan 2007-2012* and more effectively integrate biodiversity policy within the development agenda (Prip, Gross, Johnston, & Vierros, 2010). Both the new National Action Plan to Combat Desertification and Drought and the National Biodiversity Strategy and Action Plan are scheduled to be completed by late 2014. However, the change of government has brought changes in priorities, and environmental conservation features much lower on the new transitional government's agenda. Nonetheless, Government support for the protected area network as expressed in the *Durban Vision* has continued leading to a continued

[8] Based on information from the respective conventions' webpages as well as http://www.informea.org/countries/MDG/membership/, accessed on various dates

expansion of the network. The new government even adopted an inter-ministerial order prohibiting development within the protected area network (World Bank, 2013).

46. Despite the shift in priorities, the country has demonstrated a desire to improve the environmental policy framework with the preparation of multiple new policies including the new 2010 *National Environmental Policy*. In addition, the country prepared the *National Strategy for the Sustainable Development Coastal and Marine Zones* in 2009, the Climate Change Policy in 2010, and the Pollution Management Policy also in 2010. However, one key criticism of the recent environmental policies is that they are often too vague or overly ambitious. Furthermore, more often than not, policies are developed without due consideration as to their technical underpinnings and ultimate implementation arrangements (World Bank, 2013).

47. Madagascar's regulatory framework governing the environmental sector contains hundreds of laws, decrees, and orders with relatively poor harmonization and a large degree of ambiguity, redundancy, and conflict. For example, a recent review of forestry sector legislation revealed 59 unique pieces of legislation. One of the key shortcomings of framework is its failure to address more current issues such as climate change adaptation and mitigation, urban pollution, conservation of the marine environment, and waste management. Instead, the government addresses these issues through the broad mandate of local government to provide for sanitation and a 'clean and healthy' environment as stated in the Constitution (World Bank, 2013). Another shortcoming is the failure to clearly define a strategic environmental assessment process for evaluating policies, plans, and programmes (CBD, 2013). **Erreur ! Source du renvoi introuvable.** provides an overview of some of the key pieces of legislation.

48. Notwithstanding the strong start in the 1990s, environmental policy making in Madagascar has lost momentum due to the current political crisis, and consultations for the NCSA process indicate that Madagascar's key capacity constraints for implementing the Rio Conventions now relate to the country's inadequate policy and legislative framework governing land use and the ineffectiveness of existing policies, many of which have not been updated since the 1990s.

49. In an effort to address these shortcomings, the Government has initiated a review of many of its outdated policies in order to improve their relevance in the current sociopolitical context. For example, the 2010 *National Environmental Policy* is being translated into legislation by means of an updated version of the *Environmental Charter* that was adopted in 2013. The Charter contains guidelines for good environmental governance and calls for the strengthening of technical capacity and improved environmental mainstreaming. The Charter's presentation in parliament is scheduled for consideration by parliament in late 2014. The *National Biodiversity Strategy and Action Plan* is also planned to be updated in 2014, and revisions of the *Forestry Policy* are already underway with support from FAO. Similarly, the *Code on Protected Area Management* was recently revised to include new IUCN categories of protected areas that will differentiate the types activities allowed, and as of mid-2014 is waiting parliamentary approval.

50. Analysis of the overall policy framework of Madagascar, the various sectoral policies, and assorted regulatory frameworks suggests that Madagascar has made long strides towards the implementation of the Rio Conventions; notwithstanding, the country finds itself on uncertain ground moving forward. The country faces a number of challenges regarding the development, implementation, and enforcement of its sectoral policies and corresponding regulations and legislation, not least of which is the near total withdrawal of external financing and political support for environmental initiatives (World Bank, 2013; GIZ, 2014).

51. The country uses an ad-hoc approach to developing legislation which helps explain the enormity of the regulatory framework and its general incoherence. Weak technical capacity is one of the driving factors behind this approach, and it is not uncommon for those drafting the legislation to be unfamiliar with the broader legislative framework (World Bank, 2013). Another important constraint is the limited technical and analytical capability of the government ministries and departments to undertake strategic environmental assessments of the existing polices and plans.

Table 2: Key environmental legislation in Madagascar[9]

Sector	Selected Legislative Instruments
General Instruments	Constitution of the Fourth Republic of Madagascar of 11 December 2010 Law 90-003 on the Charter of the Environment Ordinance 82-029 related to the safe-keeping, conservation and protection of national heritage Inter-ministerial Order 4355/97 regarding the designation of sensitive zones and definition of their boundaries as further amended and completed by Order No 18/732 of 27th September 2004 setting out the definition and delimitation of sensitive forest areas Inter-ministerial Order 52005/2010 modifying the Inter-ministerial Order 18633/2008 relative to the temporary global protection of sites identified in Order 17914/2006 and lifting the suspension for delivery of mining and forestry permit in certain sites
Energy	Law 98-035 on Energy Sector Reform, calling for the development of independent power producers; promotion of competition and private-public partnerships; restructuring of the national power utility; providing 10% of the rural population with reliable and sustainable electricity by 2012; and increasing the share of renewable energies (without the traditional biomass) to at least 3% of total 2012 energy consumption.
Environmental Assessment	Decree 99-954 dated December 15, 1999 related to the compatibility of investments with the environment, as amended to date, notably through Decree No 2004-167 (referred to as the MECIE) Order 6830/2001 setting out the procedures and modalities of public participation in the EIA process
Protected Areas	Law 2001/05 related to the Code for Protected Areas (COAP) as amended to date Decree 2005-013 related to the implementation of Law 2001-005 related to COAP
Community Based Natural Resources Management	Law 96-025 related to local management of renewable natural resources (referred to as the GELOSE) Decrees 2000-27 and 2000-28 relative to communities and environmental mediators respectively Decree 2001-122 fixing the conditions for implementation of contracted management of State forests (referred to as the GCF)
Forestry	Law 97-017 on modification of the forest legislation 113Law 97-1200 adopting the Forest Policy of Madagascar Numerous Orders, Decrees and Ordinances referring to exploitation and exportation of precious timber
Mining Sector	Law 99-022 on the Mining Code Law 2001-031 establishing a special regime for large investments in the mining sector Inter-ministerial Order 12032/2000 regarding the regulation of the mining sector and matters of environmental protection.
Fisheries and Coastal Resources	Ordinance 93-022 relative to the regulation of fishing and aquaculture activities Decree 94-112 relative to the general organization of maritime fishing activities Decree 2010-137 relative to integrated coastal zone management
Industrial Pollution	Law 99-021 related to the management policy and control of industrial pollution Decree 2003-021 on industrial pollution control policy
Water Resources	Law 98-029 of January 20, 1999 related to the Water Code Decree 2003-191 creating and organizing water basin agencies Decree 2003-192 related to the organization, mandate and functioning of the National Authority of Water and Sanitation, Decree 2003-464 related to the classification of surface water and governing industrial emissions Decree 2003-941 relating to monitoring of water, control of water for human use, and priorities for access to water
Source: (World Bank, 2013)	

52. Another problem stemming from the poor harmonization of legislation is the ambiguity regarding scope and responsibility for enforcement. The sheer number of legislative instruments makes it difficult to gain a clear understanding of the legislative framework, and there is often redundancy amongst certain legislation while others pieces of legislation completely contradict each other. The

[9] Source: World Bank (2013)

result of which is a highly fragmented framework with considerable confusion over responsibilities and mandates, and a system that is highly vulnerable to corruption and parties choosing to undertake illicit activities (World Bank, 2013).

53. The situation is exacerbated by poor knowledge and awareness amongst policy-makers and key decision-makers regarding Rio Convention obligations and potential synergies that are aligned with national sustainable development priorities. Many decision-makers do not fully understand the long-term linkages between human activities and the global environment, and consequently environmental initiatives receive inadequate funding and support. For example, the protected area network of Madagascar is stipulated by several regulatory mechanisms; nonetheless, this issue receives less political support compared to other socioeconomic development issues which are perceived as more important. The problem is not so much about a lack of policies that promote environmental conservation (these exist), but rather the institutional capacities to fully implement and enforce them. Certainly, there may be gaps and weaknesses of the environmental conservation policies. However, a major barrier to meeting Rio Convention obligations and achieving environmentally-friendly and sustainable development is also due to insufficient funding to staff responsible for agencies with technically qualified staff.

54. The socio-political crisis in recent years has created environmental governance failures that allow illegal activities to prevail. As an example, the period following the 2009 political crisis has been one of unprecedented illegal timber extraction due in part to a growing number of "exceptional" permits granted to timber barons. The problem is not limited to timber extraction and illegal exploitation of natural resources has become rampant, in particular with regard to mining of gold or other precious minerals. Not all mining operation are illicit, in fact the country's two large-scale mining operations have been subject to environmental impacts studies through the National Office for the Environment (ONE). However, regulations have failed to keep pace with industry developments, and a number of stakeholders have expressed concerns that development projects are not respecting the recommended environmental safeguards (World Bank, 2013).

55. Another key critique of the policy formulation process in Madagascar is that it is not sufficiently inclusive with regard to stakeholder engagement. As mentioned previously, inter-agency coordination and communication has not been as good as could as desired, with key stakeholders from civil society and local communities insufficiently included in the process (World Bank, 2013; Corson, 2014; Scales, 2014). The NCSA project, however, facilitated an important consultative process at both the regional and national levels that could serve as models of stakeholder inclusion and engagement. In the past, Madagascar had no shortage of champions willing to take up the cause of environmental conservation, however in light of the political crisis such support has been less certain.

Consultative Mechanisms and Programmes

56. There are a number of permanent and *ad hoc* inter-sectoral structures and platforms that are designed to serve as an interface for environmental authorities, line ministries, decentralized structures, and other relevant stakeholders in order to integrate environmental considerations within sectoral development. There are currently two permanent platforms: Mining-Forests Commission and the Forest- Fishing Commission. Both platforms have been served important roles in the National Protected Area creation process (CBD, 2013). A network of environmental committees was also created and serves as an interface and advisory services to environmental authorities, other sectoral ministries, decentralized structures, operators and other partners on environmental issues relevant to each ministry.

57. Another platform with implications for natural resources management is the Committee of Reflection Response to Disaster (CRIC) also known as "Platform RCMP" that includes several clusters related to security and livelihood related to natural disasters. This Committee works closely with the National Disaster Risk Management Council (CNGRC) which serves as the national platform for disaster risk management and coordinates activities related to disaster prevention, preparedness, emergency relief response, and early recovery (GFDRR, 2013).

58. The Réseau des Educateurs et Professionnels de la Conservation (REPC)[10] is a triennial project led by the American Museum of Natural History, Conservation International, Wildlife Conservation Society, and Durrell Wildlife Conservation Trust, and funded by the MacArthur Foundation. REPC is a platform where conservation practitioners and educators exchange information and ideas, and receive training on the management and conservation of natural resources directly related to the Rio Conventions. The network consists of over 950 members from 187 institutions including governmental organizations, public and private universities, conservation and development NGOs, and other associations working in education and/or biodiversity conservation (CBD, 2013).

59. One key advisory body that has received high-level political support in recent years is the National Committee for Coastal Zone Management (CNGIZC). This Committee works to promote the integrated management of coastal and marine environments with a sustainable development approach. In addition to promoting and coordinating actions of various authorities for coastal and marine areas, the Committee monitors the implementation of the *National Strategy for Sustainable Development of Coastal and Marine Madagascar*. The Committee receives technical and financial support from the Nairobi Convention and PROGECO Programme. Given the cross-cutting nature of coastal zone management, the committee is broken into four thematic groups: ecosystem management; pollution, degradation, climate change, disaster risk reduction; development and integration of integrated coastal zone management (ICZM) institutional infrastructure; economic and social development. ICZM represents on possible tool to help resolve conflicts over resource management, but as of yet it has not realized this potential. CNGIZC has established several regional ICZM Committees in pilot zones, but the committees are in need of capacity building (World Bank, 2013).

60. The Network of Educators and Professionals Conservation (REPC) is a triennial project led by the American Museum of Natural History, Conservation International, Wildlife Conservation Society, and Durrell Wildlife Conservation Trust, and funded by the MacArthur Foundation. REPC is a platform where conservation practitioners and educators exchange information and ideas, and receive training on the management and conservation of natural resources directly related to the Rio Conventions. The network consists of over 950 members from 187 institutions including governmental organizations, public and private universities, conservation and development NGOs, and other associations working in education and/or biodiversity conservation (CBD, 2013).

61. In 2008, Madagascar initiated the UN REDD+ (Reducing Emissions from Deforestation and Forest Degradation). There are currently five on-going REDD+ projects implemented by international non-governmental organizations as well as capacity development initiatives that are supported by the French international aid agency (AFD) through ONE and DGF (Mamitiana & Rakotoarijaona, 2014). The key REDD+ institutions that serve to coordinate and guide the REDD+ process in Madagascar include the National Coordination Office for REDD + (BNC-REDD+), the Inter-ministerial Committee for the Environment (CIME), the Steering Platform for REDD+ readiness, and the Fiduciary Agency for REDD+ readiness (Mamitiana & Rakotoarijaona, 2014).

62. Established in 2009, the Working Group on Climate Change (GTCC) is another platform for exchange, reflection and regular information updates at all levels for stakeholders that have direct or indirect links with climate and climate risks. As an advisory body, the GTCC is not to replace the mandate of state authorities, including that of the Climate Change Directorate. Rather, it serves to bring together the various line ministries, represented most often by their environmental units, as well as NGOs, civil society, technical and financial partners, project managers or programmes, and other relevant stakeholders. Representatives come from the various ministries responsible for the environment, ecology, forestry, agriculture, fisheries, land use, health, water resources, energy, the higher education and scientific research; cell prevention and emergency management (CPGU/Prime Minister), the BNGRC, and the CNGIZC.

63. The National Coordination Office for REDD+ is responsible for the programme's technical and operational coordination in Madagascar and is housed within the Ministry of Environment, Ecology and Forestry (MEEF). Its main tasks are to: manage the process, plan and implement all operational activities; contribute to the development of REDD+ strategies and ensure that subsequent

[10] Network of Educators and Professionals Conservation

implementation is effective; ensure effective communication with stakeholders; and ensure effective collaboration with REDD+ platform to bring the necessary technical support from national and international experts. The Board consists of four units: Strategic; Legal and Planning; Monitoring and Evaluation; and Communication. Each unit has a mission to provide technical coordination and liaison institutions and support organizations in the implementation of technical activities

64. The Committee for the Environment is responsible for integrating key aspects of REDD+ within the country's sectoral policies and programmes. Another key function is to arbitrate any sectoral conflicts that may arise as identified by the Steering Platform. In addition to relaying such conflicts, the platform is also responsible for formulating the REDD+ strategy and developing its technical components. The Fiduciary Agency manages REDD+ financial resources (Mamitiana & Rakotoarijaona, 2014).

65. Each of the three Rio Conventions has established a National Focal Point to provide leadership and coordinate efforts to facilitate implementation of their respective conventions. The Directorate of Biodiversity Conservation and Protected Areas with the MEEF's Directorate General of Forests is the focal point for the CBD. The MEEF also houses the National Focal Point for the CCD and FCCC, although the financial resources available are not commensurate with roles and responsibilities. According to stakeholders consulted during the NCSA process, the National Coordination Body under the CCD had a three-year mandate that was to be renewed after 2007, but this has not occurred. Similarly, though the National Focal Point for the FCCC has been operational since 2003, there has been insufficient communication and collaboration among the focal points and stakeholders.

66. There is potential to capture many synergies between the three conventions, but current practices limit such an achievement. This includes an insufficiency of communication and collaboration between the NFPs of the Rio Conventions. Communication and collaboration between and among various government bodies, such as the environmental units, is similarly inadequate. Another factor is that stakeholders are often unaware of the roles and responsibilities of the focal points, particularly of the institutions and organizations working in the field of climate change.

67. The Working Group on Health and Environment (GTSE) was formed to initiate the implementation of the Libreville Declaration. The Group is composed of public and private entities and national experts with the aim of preserving ecosystems to reduce morbidity and mortality related to environmental degradation. Members include line ministries responsible for public health, environment, meteorology, transport, population, the social aspect, education, trade, industry, finance and budget. In addition to government representatives, this group includes experts from civil society and other relevant institutions. GTSE has played an important role in developing the following national frameworks: the National Policy on Health and Environment; Document Situational Analysis and Needs Assessment (ASEB) in Health - Environment; National Adaptation Plan for the Health Sector in Climate Change PNASCC. Currently, GTSE is involved in the development of two national documents: the National Plan of Joint Action in Health - Environment being finalized after final validation workshop in 2013 and the National Policy on Medical Waste Management.

68. The Task Force Climate and Health (GTCS) is a working group composed of fifteen members who are trained by known technicians from the health and meteorology sectors. The GTCS was set up to enhance the understanding of the interaction of climate variability and public health to reduce the burden of climate-sensitive diseases.

69. Created in 2009, the National Task Force on Conservation Agriculture (TFNAC) is a national platform for the exchange, organization and coordination of actions related to conservation agriculture in Madagascar. The GSDM is the focal structure of this national platform. Since 2012, COMESA has supported the strengthening of the coordination of the platform and development activities related to trade players. Its mandate is to bring together all the players practicing conservation agriculture at the country level to facilitate the exchange of information, documentation and dissemination of agricultural conservation techniques in Madagascar; facilitate exchange visits between institutions and farmers practicing conservation agriculture both at national and regional levels; develop a national strategy for scaling up of agricultural conservation activities; and advocate for the coordination and adoption of conservation agriculture technical level players (old and new actors) at the level of policy-makers.

70. Madagascar is one of five developing countries that is a partner of the Wealth Accounting and Valuation of Ecosystem Services (WAVES) Global Partnership. WAVES Madagascar seeks to strengthen capacity to manage natural capital and promote sustainable development in Madagascar. The programme aims to establish a range of tools to better integrate the economic value of selected natural resources into analysis and monitoring of macro-economic performance, and in turn improve decision-making and policy-making related to natural resource management (WAVES National Steering Committee, 2014). Since its inception in 2011, WAVES has enjoyed strong, high-level support for the Government including from the Secretary-General of the Ministry or Economy and Industry who will act as the co-president of the national steering committee (World Bank, 2013).

71. WAVES initially focused on technical capacity building and awareness-raising, but has since expanded into seven key sectors based on initial consultations: mining; integrated water resource management; sustainable timber management; tourism; protected areas; fisheries and coastal resources; and macro-economic performance. The WAVES initiatives are targeted to build capacity and awareness in key stakeholders in Government, civil society, the private sector, academia, the media, and local communities, among others. The first capacity building initiative began in 2013 at the National Institutes of Statistics (INSTAT) (WAVES National Steering Committee, 2014).

72. "ISLANDS" is a regional programme implemented by the Commission in the Indian Ocean with the technical assistance of MWH Global11 and funded by the European Union. ISLANDS has four flagship projects aimed at reducing the vulnerability of Small Island Developing States12: establish a regional mechanism on coral reefs; develop systems for financial protection against natural disasters and climate risks; support the development of national strategies for sustainable development; and operationalizing the Coastal Initiative on Climate Change in the Indian Ocean. Among other initiatives, the study on the economic assessment of climate change impacts in the tourism sector and water was officially launched in November 2013. This project is part of capacity building in the country that encourages regional cooperation and knowledge and information exchanges.

Sub-national governance

73. Local governance for environmental management is challenged by friction between the central level, the regional level, and the interests and realities of local communities. There exists a reluctance of the central administration with respect to capacity building of community grassroots groups, and at the same time a number of villagers tend to protect information. Similarly, when the 1990 National Environmental Action Plan called for the transfer of management of the forests to communities, there were complaints that the communities did not have the capacity, resources, or rights that were necessary to effectively fulfill this responsibility (Corson, 2014; Ferguson, et al., 2014). In certain cases, local support projects are considered not to have any significant impact and are not targeting all members of the local community. A contributing source of tension between the different levels of administration might be central authorities' involvement in covert operations such as sapphire mining in Didy.

74. Regional Directorates of Environment and Forests (DREFs) are responsible for decentralized environmental governance at the regional level. In all there are 22 DREFs which are mandated to administer, enforce, and manage environmental and natural resources issues within their respective regions. Like many other environmental units and agencies in Madagascar, DREFs also suffer from a crucial lack of capacity and resources. For example, most staff training does not effectively cover technical skills or the legislative framework that is relevant to the directorates' work. Furthermore, DREFs are hindered by poorly defined vertical and horizontal organization. While some training activities took place as part of the second and third phases of the Environment Programme, much of the progress has been lost as a result of the political crisis (World Bank, 2013).

[11] MWH Global is a multinational corporation providing technical advisory services.
[12] While Madagascar is not technically a small island developing state due to its size, it is still considered highly vulnerable to many of the same issues affecting other island states.

D.2 Organizational Capacities

75. A primary organizational capacity challenge to addressing the cross-cutting needs of the Rio Conventions is inadequate communication between administration at the central and regional levels. Little or no sharing of information at the central administration was identified by one organization participating in the Alaotra Mangoro region meeting. Inadequate sharing of information and communication between administration levels risks the effective implementation of projects and engenders dependency on partner organizations rather than the appropriate administrative agency. Inadequate communication also compounds the problems of weakened institutional capacity and unvalued individual capacity stemming from high turnover rates. Other challenges at the organizational level include insufficient staff to cover the vast territory and complexity of ecosystems, inadequate technical skills or incentivized opportunities for technical training, and the loss of staff and lowered morale in line ministries compared to better resourced agencies (World Bank, 2013).

76. As the key institution governing the environmental sector in Madagascar, the **Ministry of Environment, Ecology and Forests**[13] is responsible for the development and implementation of all national environmental policy as well as the implementation of projects and programmes related to the environment. The MEEF is also responsible for managing the protected area network along with Madagascar National Parks (PNM) and several NGOs. Another key function of MEEF is to monitor EIAs performed by other agencies such as ONE, and also to provide consultations on the development of legislative instruments that have potential environmental impacts. The Ministry is charged to coordinate with other agencies in different sectors and integrate its activities within Madagascar's larger development priorities as well as represent Madagascar at international conventions (World Bank, 2013). In addition, all three National Focal Points to the Rio Conventions are located within MEEF.

77. In theory MEEF should provide a strong role in leading natural resource management and conservation in the country. However, in practice the MEEF's effectiveness is limited by inefficient institutional arrangements, resource constraints, and insufficient technical capacity. In an effort to address the budget deficit, the Government slashed allocations for all ministries. The MEEF budgets cuts and staff salary reductions have adversely affected the Ministry's ability to train staff and recruit new staff and thus their overall effectiveness. Given its limited technical capacity, MEEF is heavily dependent on externally funded technical assistance. The political crisis is largely to blame for many of the Ministry's current budget difficulties. (World Bank, 2013; Dabire & Zouhon Bi, 2014).

78. As a result of the merging of the Ministry of Water and Forests and the Ministry of Environment in 2008, there has been confusion over responsibilities. This has contributed to limited coordination between their respective directorates that are increasingly operating independently. The failure of MEEF to operate in a holistic and coordinated way has resulted in a void in leadership that other agencies in areas such as mining and coastal resource management are beginning to fill (World Bank, 2013). It is unclear how the addition of the Directorate General of Ecology will affect the already tenuous relationship between the other two Directorates, but given the already debilitating budget shortfalls it is unlikely to help consolidate MEEF's leadership role.

79. Before the addition of the Directorate General of Ecology, MEEF was composed of seven key directorates split between the Directorate General of Forests (formerly the Ministry of Water and Forests) and the Directorate General of Environment (formerly the Ministry of Environment). New Directorates have also emerged under the Directorate General of Ecology, however it remains to be seen how this new unit will be operationalized. In addition to poor internal coordination, MEEF also suffers from poor inter-sector communication and coordination with other line ministries and agencies. Overlapping and poorly defined mandates within MEEF and external organizations only serve to complicate the situation (World Bank, 2013).

80. In addition to MEEF, **Environmental Units** were set up in each line ministry (apart from MEEF) by Decree No. 2003-439 of 27 March 2003 in order to integrate environmental concerns into sectoral policies, particularly in the agriculture, fisheries, and mining sectors (Prip, Gross, Johnston, & Vierros, 2010). The units are meant to address environmental issues with a more holistic, cost-effective, and

[13] Ministry of Environment, Ecology and Forestry, formerly Ministry of Environment and Forests (MEF)

sustainable approach to development. Units also have a mandate to evaluate and approve mitigation plans for projects with limited environmental impacts.

81. Unfortunately, since the onset of the 2009 political crisis funding has not been sufficiently forthcoming for many ministries' units, most of which had become dependent on external funding to carry out a significant portion of their programme activities. Many of the units do not hire full-time staff, but instead rely on existing staff to take on additional responsibilities. Meetings for the units are held irregularly and often the units do not have clear work plans, mandates, or training opportunities. The Environmental Units have also prompted criticisms that in trying to distribute environmental decision-making across different sectors, the process has effectively resulted in the dilution of expertise and responsibility. Moreover, high staff turnover limits the creation of institutional memory as well as the effectiveness of capacity building initiatives (World Bank, 2013).

82. The role of the National Office for the Environment (ONE) has evolved over time from an implementing agency with advisory functions to now playing an invaluable role in the environmental sector as the national environmental regulator charged with ensuring that development activities are not detrimental to the environment. One of the key roles the organization plays pertains to the environmental permitting process which calls for an assessment of possible environmental and socioeconomic impacts as well as a management plan to monitor and mitigate these impacts (Ferguson, et al., 2014). Specifically, ONE's mandate includes:

83. Development of regulations for the environmental assessment processes as set out in the national environmental assessment legislation (known as the MECIE);

84. Pollution control and prevention;

85. Marine and terrestrial environmental quality monitoring;

86. Coordination of the collection, treatment and dissemination of environmental data, information and tools;

87. Development and implementation of environmental awareness training programmes; and

88. Preparation of national and regional State of Environment reports.

89. Given the scope of ONE's responsibilities, at 36 full-time staff in 2013, the agency is drastically understaffed. Like many other organizations in the sector, ONE has faced serious challenges to its financial sustainability as a result of the crisis. The current financing structure of ONE is insufficient to even cover the costs of the evaluations it conducts; and the only source of funding is from those same evaluations. On an equally concerning note, ONE recently had its legal status changed in 2009 and it is now permitted to generate profits as well as act as a service provider. Given its crucial role as a regulator whose priority is compliance, this new status puts the organization at odds with its mission (World Bank, 2013).

90. Madagascar's national parks network is comprised of 52 protected areas parks covering 6.9 million hectares, and it has continued to grow despite the political crisis (Schwitzer C. , et al., 2014; MEEF, 2014). **Madagascar National Parks**, originally known as the National Association for Protected Area Management, was established in 1990 as a non-profit organization charged with sustainably managing the national network of protected areas on behalf of the State. This management aims to catalyze sustained economic incentives for conservation by local communities, attract investment, and ensure financial sustainability by enhancing a business culture at every management level (Madagascar National Parks, 2014).

91. While PNM is responsible for creating and expanding new protected areas, the majority of these new areas are intended to be co-managed by local communities and NGOs; however the capacity and motivation of local stakeholders are both quite limited (Ferguson, et al., 2014). Nonetheless, new non-PNM sites take a participatory approach to governance arrangement by using local associations to form a management committee to enforce regulations within their village territories. The management committees are supported by steering committees comprised of regional authorities, line ministries, and an inter-commune association with representatives from all affected rural commune. Finally,

supporting CSOs provide high-level technical and financial support to the systems (Ferguson, et al., 2014).

92. While technical capacity and available resources are relatively strong with regard to conservation and protected area management, other areas need improvement. In particular there is a need to develop skills related to conservation financing, community engagement, and protected area tourism development. The biggest threat to the PNM's ongoing activities concerns its financial autonomy and sustainability given that the organization is heavily reliant on external funding to meet its operating budget and receives no financing from the Government (World Bank, 2013).

93. Site surveying and obtaining the necessary environmental permits, are a major constraint to the creation of protected areas. Such work is very expensive and the responsible agencies often lack the necessary technical expertise and/or levels of financing. This problem was observed in Alaotra Mangoro, where plans are to create a reserve to protect endangered and endemic primates, bird and plant species, as well as to sustainably use reed species of economic importance. The high cost of surveying and permitting services was estimated at 1 billion Malagasy Ariary (US$ 375,000), representing an important barrier to the establishment of the reserve.

94. The **Ministry of Water Resources** was created in 2008 to improve Madagascar's response to its water issues. Nonetheless, while coordination has improved, there is still a great need to improve linkages between government and other key stakeholders including NGOs and the private sector. The Ministry is working to develop a national policy for integrated water resource management and plans for priority basins. However, capacity constraints at all levels are a severe constraint to achieving its objectives; this includes capacity needs ranging from engineers to financial and project managers. In addition, there is a need to establish a uniform methodology agreed by all stakeholders as well as to improve transparency in decision-making processes (UNDP, 2009; WAVES National Steering Committee, 2014).

95. Mining is an economic sector that was once under the purview of the Ministry of Mines, which has since been integrated with the **Ministry of the Presidency in charge of Strategic Resources**. The Directorate General of Mines, whose primary role is to issue mining permits per the Mining Code, also has the important role of monitoring environmental activity after environmental permits have been issued by the ONE. The environmental unit within this Ministry is one of the few such units to still receive adequate funding following the political crisis and is generally seen to be well functioning and effective. Nonetheless, political pressures and funding deficiencies limit the ability of ONE and the Ministry of Mines to monitor mining activities (Ferguson, et al., 2014; World Bank, 2013).

96. The mining sector is widely seen to be one of the key sectors moving forward in Madagascar's economic development, and the country is currently in the processes of becoming a member of the Extractive Industries Transparency Initiative. Given the growing importance of the mining sector and its potential to contribute to the country's sustainable development, it is critical that an effective environmental regulation framework be developed and implemented (Dabire & Zouhon Bi, 2014; World Bank, 2013; WAVES National Steering Committee, 2014).

97. The **Ministry of Transport and Meteorology** houses the Directorate General of Meteorology, which is tasked with the improvement of the productivity and efficiency of the National Meteorological and Hydrological Services and plays an important role in monitoring and understanding weather and climate as well as the provision of meteorological, hydrological and related services to meet national needs. The Directorate, in collaboration with various organizations and public and non-government stakeholders, carry out public awareness campaigns on climate change and the need to strengthen data collection systems across the country. More than 30 new weather stations were established in the most vulnerable areas of Madagascar in collaboration with technical and financial partners and NGOs working in the fields of food security, agriculture, environment, and health (e.g., Tany Meva Foundation, WFP, WWF, UNICEF, WCS).

98. The **Ministry of Public Health** has undertaken capacity building activities in partnership with the Ministry of Transport and Meteorology to reinforce capacities in the ministries to better understand the interaction of climate variability and public health; improve technical capacity to create, manage, and analyze weather and climate information and data for prevention, response and epidemiological

research. These capacity building activities were supported by the World Meteorological Organization and the International Research Institute at Columbia University. One major problem limiting the country's ability to implement an integrated solid waste management framework at the local and regional levels is the lack of technical capacity.

99. The **Ministry of Interior and Decentralization** supervises the economic and social development at the local and regional levels. Branches at regional level and districts that are commonly known as "Devolved Technical Services", work with civil society and the private sector and are responsible for coordinating activities in their area. The **National Office for the Disaster Risk Management** (BNGRC) operates within this Ministry and is responsible for coordination or all activities related to the prevention, preparedness, emergency relief, response and early recovery. The BNGRC is charged with developing and implementing programmes that communicate, educate, and ultimately help mitigate the effects of natural disasters. BNGRC provides technical support for local and regional planning, organizes training, and develops and manages information on risks and disasters.

100. International experience shows that one factor of successful disaster management and the reduction of disaster risk is prioritizing training and institutional capacity building. Therefore, the capacity of regional and local authorities is a priority for the country's disaster and risk management. BNGRC has worked with UNDP and the Ministry of Education to strengthen local and national capacities for disaster risk management. At the local level activities have focused on strengthening the local community resilience by funding local disaster and risk management plans. Nationally the emphasis has been to improve capacity to better assess risks facing the country and develop policies and plans that respond to those risks. An initiative to set up a national platform for disaster risk management was underway in late 2014.

Table 3: Government Ministries as of April 2014[14]

Ministry of Public Safety	**Ministry of Environment, Ecology, and Forestry**
Ministry of the Presidency in charge of Strategic Resources	Ministry of Public Service, Labour and Social Legislation
Ministry of National Defense	Ministry of Energy
Ministry of Foreign Affairs	Ministry of Water
Ministry of Justice	Ministry of Marine Resources and Fisheries
Ministry of Finance and Budget	Ministry of Livestock and Animal Protection
Ministry of Economy and Planning	Ministry of Transport and Meteorology
Ministry of the Interior and Decentralization	Ministry of Commerce and Consumer Affairs
Ministry of Industry and Private Sector Development of Small and Medium Size Companies	Ministry of Population, Social Protection and Promotion of Women
Ministry of Agriculture and Rural Development	Ministry of Tourism
Ministry of Higher Education and Scientific Research	Ministry of Public Health
Ministry of Post, Telecommunications and New Technologies	Ministry of Communication, Information and Institutional Relations
Ministry of National Education	Ministry of Youth and Sports
Ministry of Public Works	Ministry of Craft, Culture and Heritage
Ministry of Employment, Technical	Ministry of State in charge of

[14] Based on information from the Government of Madagascar website, http://www.madagascar.gov.mg/, accessed 29 October 2014

Education and Vocational Training	Infrastructure, Equipment and Territory Planning
Ministry of National Defense for Gendarmerie	

101. The Cell Prevention and Emergency Management is a permanent technical body under the direct supervision of the Prime Minister, endowed with legal personality and administrative and financial autonomy. Its main task is to assist the Prime Minister and the National Council for Risk Management and Disaster (CNGRC) in the performance of their duties with regard to design, development and updating of the national strategy for the management of risks and disasters; and monitoring and evaluating the implementation of prevention, preparedness and response of public bodies acting in emergencies. In carrying out its tasks, the CPGU works with BNGRC, as well as agencies of the Prime Minister working in emergency situations.

D.3 Information Management and Knowledge

102. The unique biogeography of Madagascar has made for much research and study of the country's biodiversity. Much of this research is undertaken by international academic and non-governmental organizations, supported by Malagasy organizations and research institutions. However, much data is yet to be collected and analyzed. Over the past few decades, the threats to biodiversity have increased in degree, arising largely from unsustainable use (e.g., over-exploitation and poor farming practices). The root causes to the loss of biodiversity remain low public awareness and insufficient information.

103. A number of regional actors have criticized the country's inadequate system for information and knowledge management and the poor information sharing between or within sectors despite the existence of various committees and environmental units. In theory mechanisms such as the Environmental Units would enable dissemination of environmental information to relevant stakeholders; however capacity deficiencies and budget shortfalls have limited their effectiveness.

104. Low levels of knowledge and awareness regarding Rio Conventions and environmental policy at the central and regional levels of the government and NGOs further hinders the successful implementation of the conventions. Moreover, limited sharing of information and inadequate communication and collaboration with non-state stakeholders from civil society and the private sector, among others, has resulted in the isolation of many stakeholders, particularly those in rural regions. Furthermore, withholding of information, whether it be by design or unintentional, has the major long-term repercussions for the efficient management the limited financial resources. Similarly, the paucity of information and transparency of research projects precludes synergy between the research and operational activities.

Capacity deficiencies and budget shortfalls have limited the effectiveness of the Environmental Units to disseminate information

105. Although there are training institutions that focus on environmental management, educators in schools and university often lack sufficient knowledge on the issue as in the case with climate change and its causes, effects, and outcomes.

Public awareness and environmental education

106. An important, cross-cutting gap hindering the synergistic implementation of the Rio Conventions is inadequate awareness of critical environmental issues, and in particular the linkages between poverty, pollution, and people's attitudes and behavior concerning their immediate environment. Local communities and indigenous peoples tend to have a greater understanding of the relationship between the environment and their own well-being, but their high dependence on the natural resource base places them and their immediate environment at exceptional risk.

107. While rural and urban populations are often directly affected by the country's management of the environment its natural resources, there is limited knowledge of the conventions and their benefits, and in the case of climate change the level of knowledge is especially low, particularly at the central and

regional levels. A number of advocacy and information initiatives have already been conducted at regional and national level meetings and events organized by the Climate Change Directorate and international NGOs, however there is a need for additional activities.

108. The Government of Madagascar is committed to strengthening public awareness and environmental education as well as increasing local community participation in environmental conservation. However, practical activities in educational and cultural centers have been hampered due to inadequate funding. Nonetheless, there is an understanding that sustainable development goals are more likely to be achieved when local communities and civil society stakeholders better understand and fully support them. To this end scientists have been working with local communities to educate them and illustrate the environmental and economic benefits of conservation activities (Schwitzer C. , et al., 2014).

109. There have been a number of awareness-raising campaigns designed to inform the public about the socioeconomic and environmental benefits associated with sound natural resource management. NGOs have been most active in this area by developing information materials, in various formats with the use of national languages. Despite the various awareness-raising initiatives, the low level of knowledge and awareness regarding the Rio Conventions is one of the critical gaps at the individual level to their implementation. One of the constraints affecting awareness is the high rate of illiteracy especially in the rural areas. Tools and methodologies adapted to this situation are needed to educate these stakeholders. The state and the other actors working in the field could use decentralized local/regional structures to effectively reach stakeholders.

110. This inadequate and uneven capacity exacerbates limited institutional relationships and information sharing. In addition, stakeholders do not know enough about the roles and responsibilities of the various focal points in particular vis-à-vis institutions and organizations working in the environmental field, and collaboration between focal points of the various MEAs is poor.

111. One such awareness-raising activity for the FCCC was the provision of information and training sessions for policy-makers, civil society, the private sector, and potential sponsors for CDM projects in Madagascar (e.g., JIRAMA) at various levels in almost all regions of Madagascar. These events have affected several activities, including the preparation of analytical studies and reports, project documents, training of climate change experts, and conferences, among others. In addition, a national expert at the DCC teaches and shares the challenges of climate change (social, economic, environmental) future officials of the State Normal School of Administration of Madagascar (ENAM)

Technology development and transfer

112. Madagascar looks to the international community to support the transfer of technology and make new investments. Such transfers are supported in the Rio Conventions, for example, Principle 4.8 of the FCCC calls for countries to pay particular attention to the needs of developing countries that have low-lying coastal areas. The Clean Development Mechanism is one such mechanism which helps the country adapt to and mitigate the impacts of climate change.

113. MMD is developing a national and international partnership for leveraging advances in scientific knowledge and technological progress, but also in the field of education and training for a continuous watch both technology and science. At the country level, technical capacity for managing databases remains low, especially within the Government, NGOs, civil societies, and local communities. Personnel and field technicians have little understanding of local good practice (e.g., local knowledge for adapting to the impacts of climate change).

114. There are a variety of organizations maintaining databases for the environmental sector although these databases are often incomplete, outdated, and poorly synchronized with other databases. For example, the Ministry of Transport and Meteorology maintains an emissions database and a GHG inventory is conducted to inform the National Communications to the FCCC while ONE manages the Madagascar Clearing-House Mechanism for knowledge management related to biodiversity and biosafety (CBD, 2014). In 2012, the Centre for Studies, Reflection, Sleep and Orientation (CERVO) was established within the BNGRC. It is responsible for the acquisition and recording of data and information from sources such as regions, districts, municipalities, fokontany, partners, members, and

others, then the work of compilation and processing data and finally, to develop tools for decision-making.

115. There is a lack of technical and scientific data at a national level and sharing and dissemination of the data that exists is limited. In addition, many national indicators are poorly defined and are not harmonized. For example, there is a need to update the specific indicators related to the FCCC on carbon and other greenhouse gases as well as climate change impacts on Madagascar's coastal areas. However, opportunities to do so are limited given the lack of material, technical, and human resources. Given these constraints there is a great opportunity for synergies in Rio Convention implementation by enhancing the country's environmental management information system to be more relevant to all three Rio Conventions.

116. Furthermore, heterogeneity of methods and methodologies for the collection and processing of data limit the reliability and usefulness of the data and information. The exchange of data/information between the regional and central levels is infrequent, and the system of collecting and processing data and information related to many environmental activities at the regional level does not exist. Technical, material, and financial capacities for collection, processing and dissemination of information and statistics as well as capacity building are low amongst state and non-state actors alike. For example, as World Bank found, data availability in the water sector is limited by the number of actors and poor coordination with data collection and analysis (World Bank, 2013).

117. In order to better manage data and information related to the environment, the Malagasy Environmental Programme established the National Environmental Dashboard (TBE). The TBE serves to collect and disseminate data and information that is related to the environment and synthesize it into a set of environmental indicators related to climate change impacts, continental waters, coasts, soils and vegetation cover, and biodiversity. While the Dashboard was initially designed to be a decision-making tool, it has since been used for a variety of other purposes related to research, training, and the generation of status reports. Following the succession of the National Environmental Dashboard, the Programme created regional dashboards which now cover 90% of the country's regions and are updated regularly. Nonetheless, the potential of TBE remains untapped as many sectors fail to use it. According to users, information on TBE is unreliable for a number of areas and is not updated frequently enough. As a consequence, TBE does not meet their needs. For example, there is insufficient information in databases that is used to assess conservation status of taxonomic groups under IUCN criteria (CBD, 2013; CBD, 2014).

A sufficient level of capacity exists to make small, incremental improvements to institutionalize better approaches to natural resource management

118. Institutional relations are limited at both central and regional levels. A number of players even characterize the situation of these relationships as competitive, or the relationship itself competitive: within a department (central-central, central-regional); between the Ministries/sectors between the Ministries/state actors and other stakeholders (NGOs, private sector). Therefore coordinating activities and awareness on the subject and cross-cutting at all relevant sectors is difficult and a great challenge. And communication and information exchange at all levels (horizontal and vertical) is also insufficient.

119. The opportunities for environmental conservation in Madagascar are largely defined by the existing set of technical capacities, institutional arrangements, and policy framework. The relative low technical capacity at the national level to formulate and implement large-scale, national sustainable production projects is another barrier to environmentally sound and sustainable development. Technicians mastering tools such as GIS and remote sensing are still inadequate in terms of administration. Although environmental training institutions exist, the number of institutions addressing the Rio Conventions specifically is still insufficient. Notwithstanding the country's weaknesses, there is a sufficient level of capacity to make small but incremental improvements to institutionalize better approaches to natural resource management.

Research and Innovation

120. All three Rio Conventions emphasize the need for research and monitoring to improve the state of knowledge necessary to understand ecological perturbations, and therefore develop management

responses. While research institutions and research-supporting partnerships exist, such as university biology departments and biological conservation-oriented foundations, they are not sufficient and there is a need to improve collaboration regarding the three conventions. One key lesson learned by the World Bank regarding policy development was that policy frameworks must be developed with a clear understanding of the existing capacity that is available to implement the resulting policies. However, capacity alone is not enough, high-level Government buy-in for policy development is essential to ensure that policies are formulated to meet Government needs and priorities (World Bank, 2013).

121. Environmental management, including biodiversity conservation, has become a regular source of income and/or a lucrative business for a number of people or entities with poor training and knowledge in the field. At the same time, local government agencies do not have enough technically trained staff to collect all the data and information needed to support even policy decisions, and the acquisition of new skills is not highly sought after by technicians who do not receive adequate compensation after completion of training. There are also few incentives to discourage institutional memory loss in the public sector and NGOs.

122. Donors and NGOs have stressed the need to expand long-term research presence in the field. Such field stations produce valuable data that can be used to inform policy-making, and they also provide valuable practical training to scientists. Furthermore, a strong research presence also serves as an effective deterrent to illegal activities such as poaching and logging (Laurance, 2013; Schwitzer C. , et al., 2013).

123. Capacity development limited by the state of knowledge on biodiversity, climate change, and land degradation is also challenged by differing views of development held by various policymakers at the central and regional levels. Most projects and programmes are developed at the central level, and often the technicians have little understanding of the specific local socio-economic, cultural, and physical context. Thus, actions are not always consistent with the actual situation on the ground.

Stronger partnerships and collaboration are needed to catalyze more effective applied research, more informed policy-making, and on-the-ground activities

124. In the university system, numerous modules are offered in connection natural resource management. For example, the National Institute of Nuclear Science and Technology offers a regional training course on assessing soil erosion; the Department of Earth Sciences offers vocational training and an Earth Science degree; and the Faculty of Science of the University of Antananarivo offers professional training for a Bachelor's degree in renewable energy engineering. Despite the numerous educational institutions offering a variety of programmes related to environmental conservation and natural resource management, these programmes often lack practical training. Furthermore, within organizations, there are problems of adequacy of training/employment and profile/post and the lack of a plan for staff development and career management are recognized.

125. Although much training in conservation work remains, there are still important technical capacities and expertise in Madagascar working on a range of environment and conservation issues. Professionals working in various national and regional institutions can be mobilized to contribute to training exercises, as well as other conservation activities. In the higher education sector, raising the academic level of the university education system to produce higher degrees at the Master's and Doctorate levels is also an opportunity to further increase the number of specialists available to contribute to improved conservation efforts.

Monitoring and Evaluation

126. Madagascar has created some environmental monitoring and reporting systems to measure environmental degradation and the results of conservation activities, however there are also important gaps in monitoring, technical capacity, and funding. Furthermore, there is a need for greater overall coordination and synchronization of the various monitoring systems that exist.

127. For example, no monitoring system has been established for the protected area network. Moreover, no system of accountability in the implementation of the NAP under the UNCCD was created, and it is not clear who is accountable to whom in its implementation. Similarly, no evaluation has been conducted with respect to the implementation of the NAP since its start in 2003.

128. The political crisis has posed challenges for monitoring and evaluation of programmes and activities in many organizations. One example of this is the suspension of the Information and Rural Food Security System which had been in charge of monitoring risk areas and collecting data related to food and nutrition security, covering rainfall, changes in crops, livestock, availability and prices on the market, nutrition, the eating habits of populations and their migrations (WFP, 2012).

129. Another programme that was suspended in 2010 is the Early Warning System in line with the National Strategy for Disaster and Risk Management. Since the outset, the SAP was designed to be useful and functional to reduce timely negative impacts of natural disasters, including drought through appropriate risk management, the system itself consists of both action and training. It is an action-observation training that is to say, a continuous process of collecting and analyzing information simultaneously and/or data whose products are readily traded on the field level. This process encourages local communities to improve their capacity to respond to disasters and risks in terms of organization and practices and especially their ability to respond to mitigate the effects of drought.

130. The Strengthening and Accessing Livelihoods Opportunities for Household Impact (SALOHI) Programme is one of the few programmes working to combat land degradation. It is implemented by a consortium of non-governmental and private sector actors, and its focus is on developing early warning systems and building community capacity to manage land and water sources by supporting the development and implementation of management plans for natural resources. The SALOHI Programme also informs producers in the south about technologies for sustainable water management through water recycling.

131. The network of rural observatories (MMR) is a monitoring and analysis of the living conditions of rural households. A key objective is to understand the evolution of the situation of rural households and the impact of public policies and external shocks on these households (EPP PADR). The Anti-Erosive Control Programme (2004-2013) aimed to implement erosion control measures in erosion sites, improve agriculture and pastoralism on sloping crops, and support land security in areas treated for erosion.

132. Compared to the requirement for the country to have an Early Warning System, the National Policy for Disaster Risk Management and declined in National Strategy for Disaster Risk Management (SNGRC) and consider drought as a natural hazard of the country. The SNGRC is now being updated is of importance in relation to the preparation of the various actors vis-à-vis the drought (Obligations relating to the establishment of a warning system early for drought risk and empowering people affected by desertification and drought persons). However, the literature review describes inconsistencies in the policy and reports a level of embryonic advancement of early warning systems for the country.

D.4 Stakeholder Engagement

133. Civil society has an essential role to play as a watchdog and in lobbying and advocating for environmental governance. International and national NGOs have grown in capacity and importance in Madagascar in response to this need, though there is still much room for improvement in terms of community engagement (Ferguson, et al., 2014). Despite its shortcomings, civil society in Madagascar has been effective in raising awareness of issues such as illegal exploitation of natural resources including rosewood, and the exploitation of critically endangered species.

134. While civil society is taking an increasingly active role in Madagascar's environmental sector, this participation is uneven and in need of greater coordination to ensure that their efforts are congruous. According to a recent World Bank report, environmental civil society organizations are arguably more mature and robust than organizations in other sectors, but they still face a variety of challenges including duplication of roles, limited geographical coverage and representative functions, and poor financial sustainability (World Bank, 2013).

135. Given the need for greater coordination, Madagascar's environmental NGOs and associations created an environmental platform in 2009 called Alliance Voahary Gasy which aims to strengthen the country's environmental civil society. The Alliance includes 32 associations and NGOs that focus on specific themes related to environmental governance: protected forests and areas; water and ecological services; mining and extractive industries; natural resources trafficking; and marine and coastal ecosystems. The Alliance addresses these areas through capacity-building projects, networking, advocacy/lobbying, and communication (Rakotondralambo & Ndranto, 2014).

136. NGOs also work together outside of the Alliance Voahary Gasy, and are valuable partners for academic and research institutions. Universities play an important role by conducting research and offering academic programmes related to environmental conservation and natural resource management. Although coordination and technical capacity are limited, there are platforms in which NGOs and Government work together such as the Working Group on the Transfer of Management and the Task Force on Conservation Agriculture among others. For example, the MEEF, in partnership with donor organizations, local community associations and NGOs, has taken a number of steps to conserve coral reefs and other vulnerable marine and coastal ecosystems through mangrove restoration.

137. Foundations such as the Tany Meva Foundation and the Madagascar Protected Areas and Biodiversity Foundation are important NGOs in the environmental sector and help fund conservation activities. Specifically, Tany Meva supports community level environmental work while the Foundation for Protected Areas and Biodiversity was established to sustain and grow the protected area network.

138. Although Madagascar faces challenges to implement the Rio Conventions, and stakeholder engagement in environmental policy development and implementation has faltered at times, there has been considerable progress in recent years. Madagascar has a strong tradition of community-based organizations operating at local levels to improve environmental conservation in and around protected areas. Moreover, the most successful endeavors to address land degradation are related to those biodiversity conservation initiatives of the governmental, non-governmental, and community actors that organize and assume stewardship of protected areas. Local guide and community associations such as Association des Guides d'Andasibe and Mitsinjo have worked together to expand protected areas beyond national boundaries, and these community-based initiatives are often more cost-effective than larger national initiatives. While community training and empowerment and training can be a lengthy process, numerous international conservation organizations such as IUCN see community-level management as crucial to environmental conservation goals in the coming years (Schwitzer C. , et al., 2013; Schwitzer C. , et al., 2014).

139. Nonetheless, there is still reluctance on the part of local communities and farmers to work together and collaborate on common concerns (Ferguson, et al., 2014). As a result of community reluctance, conservation strategies and action plans are mainly implemented at the species level rather than at the ecosystem or landscape level. As an example, low motivation at the community-level regarding the rehabilitation of lavaka, an erosional feature, is attributed in part to factors of organization (rather than individual or community) and a long-distance from residential villages. On a related note,

protected areas are not equally successful in all communities and regions due to poverty and an increasing need for resources. The strict application of the law, though impractical as it may be, is considered by stakeholders as the main means for improving the effectiveness of conservation area management and sustainable harvesting.

140. Indigenous communities have expressed interest in the conservation and sustainable use of natural resources, although, social, cultural, and religious dimensions are generally not taken into account when developing different policy, strategy, programme and action plans for the environmental conservation. To make matters worse, some attempts to increase community involvement in conservation have come under fire for their inadequate and clumsy attempts to merge local cultural values and institutions with western conservation ethic (Scales, 2014; Kaufmann, 2014).

141. One unique characteristic in Madagascar that directly affects stakeholder engagement is the existence of the social convention: *dina*. This traditional system of oral and written laws establishes a social contract between groups of people at a local level that governs many issues including natural resource and land management as well as associated penalties. There has been a move to integrate modern legislation with traditional customs, however, according to a recent World Bank analysis "as most modern Malagasy legislation focuses on prescriptions and prohibitions the prevailing 'command and control' approach has often resulted in conflicts with traditional approaches." (World Bank, 2013, p. 32).

142. Although public participation is encouraged by legislation it is often loosely defined, and in practice there is a limited understanding of obligations and rights. This is especially noticeable in the EIA process where ONE is granted the right to determine the modalities of public participation with barely any legal constraints; as a result the entire EIA process is susceptible to political bias and poor representation by CSOs (Ferguson, et al., 2014). The consultations that take place with regional actors are essentially seen as a form of tokenism since communities often lack the power and/or ownership rights over natural resources to influence development plans or outcomes, and as such, their participation amounts to little actual change (Ferguson, et al., 2014).

Fragmented governance and monitoring as well as large geographic distances between communities and decision-makers limits effective public engagement

143. Madagascar has received criticism for taking a more heavy-handed, centrally-driven approach to governance that is not representative of local stakeholder interests. This includes manipulation of regional and local governments through political pressure and the withholding of adequate budgets or authority to address all of their responsibilities. Another compounding factor is the disempowerment of local communities regarding their access to elected officials which essentially amounts to the suppression of opposition and community resistance. This problem was particularly apparent in the development of the protected area network which is said to have failed to adequately account for local community interests and alienated rural stakeholders. Similarly, government reforms of the mining sector were criticized as being too skewed towards conserving biodiversity without fully ensuring well-being of human populations (Ferguson, et al., 2014; Corson, 2014; Scales, 2014).

144. Furthermore, factors such as fragmented governance and monitoring, limited access to the scarce information that exists, the cost and complexity of the legislative system, and large geographic distances between communities and decision-making centers restrict the amount of real public engagement that takes place. Power imbalances between Government, the private sector, civil society and local communities further restrict access to useful information, and while public participation is encouraged by legislation, it is not required, and thus insufficient. For this reason, one of Madagascar's challenges is to continue to develop capacity in local stakeholders and civil society to better participate in governance structures, particularly their ability to independently monitor the public participation process (Ferguson, et al., 2014; Corson, 2014; World Bank, 2013).

For this reason, one of Madagascar's challenges is to continue to develop capacity in local stakeholders and civil society

D.5 Financing

145. A challenge common to many organizations participating in the NCSA was the difficulty of connecting with funding that would enable the organizations to best address the cross-cutting issues of the Rio Conventions. Inadequate funding risks institutional and organizational continuity as well as potential realization of opportunities to scale. A different component of this challenge of the funding process in Madagascar is that projects often are centrally developed with donors, rather than meeting the needs of the producers. There is a need for a coordinating system for funding that would streamline existing funding and create sources if necessary. The lack of transparency limits potential synergies to be found across sectors, and furthermore the failure to provide a clear and stable governance framework creates uncertainty that deters potential investors many of whom fled the country following the crisis, but are eager to return once the situation has settled (World Bank, 2013; Andriamananjara & Sy, 2014). The recent elections are a step in the right direction, and it is expected that effective governance and international aid will resume under the new president (Schwitzer C. , et al., 2014).

146. The political crisis has magnified the sector's key weaknesses. Following the political crisis many international donors such as USAID and several European governments suspended their environmental programmes in the country until the situation is more stable (Schwitzer C. , et al., 2014). This withdrawal of funding highlights the inherent financial fragility of key institutions within the sector and compounds the issues associated with the breakdown in environmental governance. In addition, the crisis has displayed the vulnerability of environmental and natural resources governance structures and their potential to be dominated by internal and external interests (World Bank, 2013). Given these limitations, there is a clear need to strengthen the financial sustainability of the environmental sector and its institutions.

147. Together, the GEF and UNDP play an important role in strengthening Madagascar's capacities to meet obligations under the three Rio Conventions. In addition to the NCSA, GEF is financing a number of other projects with UNDP as the implementing partner. This includes a full size biodiversity conservation projects to manage endangered endemic wildlife both in the productive landscape and in protected areas, as well as to strengthen the country's network of protected areas. There is also a project underway to demonstrate best practices for sustainable land management, and upcoming climate change projects; one to mitigate the impacts of climate change through the use of hydroelectric power and another to strengthen climate resilience.

148. Notwithstanding the capacity assessment process managed by the NCSAs, countries are undertaking similar capacity assessment exercises through focal area projects. For example, the GEF provides grant funding for countries to undertake "enabling activity" projects, which National Biodiversity Strategy and Action Plan, National Action Plan to combat desertification and drought, and a national communication under the Framework Convention on Climate Change. Similarly, other bilateral development agencies working in Madagascar programme their resources to develop priority capacity development needs. As a comprehensive exercise to assess the capacity needs under the three Rio Conventions, these bilateral and other multilateral donor agencies represent important partners in development. This is especially important given that GEF resources are only eligible to finance capacity development activities that are designed to produce global environmental benefits. For the most part, these activities are indivisible from those other sustainable development activities, the latter requiring leveraged co-financing per GEF guidelines.

149. The Small Grants Programme funded by the GEF has been in operation in Madagascar since 2004, having disbursed over US$ 4.2 million through 203 projects. Grants have been made available to over 110 community-based and non-governmental organizations and associations. Projects have included the improved management of economically important species and conservation of globally significant habitats, demonstrating environmentally-friendly and sustainable transportation options, promoting energy efficient technologies, and reducing persistent organic pollutants, in particular plastics.

150. In addition to UNDP, the World Bank and United Nations Environmental Programme (UNEP) are the two other GEF Implementing Agencies that are supporting global environmental projects in Madagascar. The choice of GEF Implementing Agency to support the Government of Madagascar is

dependent on the comparative advantages that each bring to the table, with the World Bank largely supporting those larger scale projects that have a loan component. UNEP's selection as an Implementing Agency to the GEF was on the basis of their comparative advantage on their extensive experience on developing and training social actors in developing countries on best practices for natural resource management, including innovative approaches and tools.

151. Notwithstanding these comparative advantages, the Government of Madagascar may select which GEF Implementing Agency they wish to work with in support of meeting their obligations under the three Rio Conventions. Of the 27 GEF approved projects, UNDP has or is currently supporting 9 projects, UNEP is supporting 11, and the World Bank is supporting 4 projects. The GEF Secretariat, African Development Bank (ADB), and United Nations Industrial Development Organization (UNIDO) are each supporting the implementation of a GEF project. Madagascar has participated or is currently participating in a total of 31 global GEF projects, such as the Global Forest Watch project with the support of UNEP and the Western Indian Ocean Large Marine Ecosystem / Strategic Action Programme / Policy Harmonization and Institutional Reforms (SAPPHIRE) Project with UNDP currently under development. Further details on the projects that have or are being financing by the GEF can be found on the following website: http://www.thegef.org/gef/gef_projects_funding.

D.6 International Development Partners

152. Prior to the political crisis of 2009 and up to 2013, a number of international donor agencies were working in Madagascar to support environmental projects. While not all left, the return to political stability saw many of international donors returning. Multilateral donor agencies currently working in Madagascar now include the African Development Bank, European Union, GEF, IFAD, UNDP, and World Bank. Bilateral donor agencies are also very important development partners from France, Germany (GIZ), Japan, the Netherlands, Norway, Switzerland (Helvetas Swiss Intercooperation), and the United States (USAID), as well as other inter-governmental organizations such as the CARE International, Conservation International, World Conservation Society, and the World Wide Fund for Nature. The World Bank is one of few donors that continued to provide direct financial support to the environment sector throughout the crisis, however that support has not been utilized to its full potential (World Bank, 2013; Schwitzer C. , et al., 2014).

153. The GIZ-Malagasy environmental programme is currently fostering dialogue at the national level regarding policy-making and coordination between the government and non-government stakeholders from civil society and the private sector. To this end, GIZ offers advisory services to NGO stakeholders from the forestry and environmental sector, including CSOs and the private sector in order to strengthen their capacity to better engage in the policy-making process. Another GIZ priority focuses on decentralized environmental governance and management of natural resources. GIZ is offering advisory services to support capacity development of municipalities and non-government stakeholders to sustainably manage local resources. This includes technology and knowledge sharing in areas such as sustainable agriculture and energy conservation technologies (GIZ, 2014).

154. Tracking the effectiveness of development financing is not adequately undertaken, the result of which makes it difficult to leverage successful project outcomes for new and additional financing. The goal to triple the surface areas of protected areas from 2003 to 2012 was not achieved in large part due to the political crisis that resulted in the withdrawal or suspension of external funding.

155. Overall, the international community, through bilateral and multilateral development agencies, has numerous programmes to make available financing, at both grant and concessional, to undertake actions in support of international objectives. These financial resources are for the most part legitimized by various multilateral environmental agreements, e.g., decision 27.7 of the CBD's Conference of the Parties at its Seventh Session that calls for special financing to conserve mountain biodiversity.

156. Financing is an important constraint identified to the national implementation of the CBD. Conservation including management, protection and restoration possibly of protected areas is the most privileged in funding, due to special interests in cash and/or targeted ecosystems, and special considerations in terms of partnership. The government of Madagascar has pursued various financing

for biodiversity conservation, including the development of foundations, the promotion of ecotourism, payments for environmental services, and proceeds from export taxes. Funding for the creation and management of protected areas is mainly financed by external inputs. External donors often unilaterally define the context of their support (e.g., choice of beneficiaries and method of use).

157. Although funding is focused on 33 of 51 various types of protected areas, funding of research activities remains low, including applied research invaluable for the planning, implementation and evaluation of conservation policies. Out of 92 new or future protected areas, the 47 being established or planned for currently enjoy the support of sponsors and donors. The remaining 45 have the status of temporary protection, without substantial aid. Moreover, these sites have been hit by the socio-political crisis that crossed the country and faced disruptions if not a decrease their budget in the planned creation in the beginning[15].

158. The two foundations are the Madagascar Protected Areas and Biodiversity Foundation (FAPBM) and the Tany Meva Foundation. The FAPBM has granted funding since 2010 from interest earned on its capital, and it now funds two million hectares of Protected Areas. Tany Meva Foundation has invested nearly $1 million per year to support local communities in the implementation of community projects that contribute to achieving the objectives of the CBD, the CCD, and the FCCC.

159. A portion of the proceeds from certain ecotourism companies goes to local communities to promote community projects such as the construction and rehabilitation of social infrastructure in outlying areas of the protected area. Proceeds have nearly trebled between 2009 and 20013, from US$ 465,000 to US$ 1,340.000.

160. Payment for environmental services in recent years includes the sale of carbon as well as a compensation plan called Social and Environmental Safeguards. The compensation plan helps to fund the implementation of community development projects for the benefit of the population affected by the project expansion or establishment of new protected areas. Export taxes, also a source of funding for the implementation of the CBD, have more than halved between 2010 and 2012, from US$ 114,193 to US$ 44,000.

161. The implementation of the National Environmental Action Plan in Madagascar between 1990 and 2009 raised approximately US$ 450 million from financial partners, including more than US$ 150 million for the implementation of the third phase (2002-2009). Since 2011, approximately US$ 52 million from the World Bank and the GEF were made available to the main operators in protected areas.

162. Funding for biodiversity conservation also comes in the form of contributions by international and bilateral donors and the private sector such as mining companies. The GEF Small Grant Programme of Madagascar has helped to initiate community projects of conservation and forest restoration in six regions of biodiversity. Yet financial sustainability is not yet fully a reality given the constant changes of the financial mechanism and political instability. Inadequate tracking device implementations financing of development projects is particularly an issue.

163. For the implementation of the CCD in Madagascar, there is not a clear funding policy. The implementation of the 2003 National Action Plan to the CCD was financed through select recommended projects and activities were financed by the Government, donors, international NGOs, among others. The identification of the amounts allocated to the fight against the DDTS is not an easy exercise given its cross-cutting nature and given the difficulties in obtaining information on funding in general, but for the years 2012 and 2013, the total amounts allocated technology transfer are estimated at US$ 280,000 and US$ 430,000, respectively.

[15] Official data on the number of the protected depends on the categorization of what constitutes a protected area, e.g., Strict Nature Reserves, National Parks, Wildlife Reserves, Private Reserves, and those that do not appear to have any of these categorizations. The figure used here is based on information provided by Madagascar National Parks.

164. Overall, the inadequacy of government budgetary financing makes it difficult to implement conservation activities. National actors also face difficulty in raising funds. Furthermore, the distribution of funds from donors is uneven, and competition for funding between the various actors from government and civil society exist and impede potential opportunities for collaboration. Moreover, the lack of a system of redistribution of funding does not rationalize resources. And funding opportunities are ignored by state actors and national NGOs. The start of the NCSA programme at the national level is an opportunity to develop funding policy actions.

E. CAPACITY DEVELOPMENT STRATEGY

E.1 Capacity Development Strategy

165. The Charter of the Malagasy Environment, approved by the Malagasy Council in 2013, and the National Environmental Policy (2010) are the two main policy instruments that set out the vision and priorities for good governance and management of Madagascar's environment and natural resources. Recognizing the global importance of the country's biodiversity, risks and threats arising from desertification and drought, as well as the impacts from climate change, Madagascar is committed to managing its environment and natural resources in a way that meets national sustainable development priorities while at the same time meeting obligations under three Rio Conventions.

The Capacity Development Action Plan would be implemented through an on-going assessment of the overall environmental programme and current portfolio

166. There are a number of development activities currently underway in Madagascar to meet these goals and objectives. One addition to this landscape was the NCSA that served to identify and assess the priority capacity development needs that remain important constraints, as well as opportunities, to Madagascar's ability to meet their obligations under the three Rio Conventions. Importantly, the NCSA was a process to undertake this assessment through local stakeholders, which includes the various government agencies at the local and central levels, as well as the private sector, academia and civil society, among other partners.

167. These capacity development needs were also determined to be relevant for other multilateral environmental agreements, such as CITES, and other important environmental issues, such as natural disasters. Not only did the thematic assessments produce a framework set of capacity development actions for each of the three Rio conventions, but importantly laid out a framework of key capacity development actions that cut across the three conventions. This Capacity Development Strategy outlines an approach by which these actions could be undertaken.

168. Much as with other least developed countries, Madagascar's primary goal is to reduce poverty, which is largely being pursued through a strategic set of national social and economic development strategies. Given the inextricable link between local action and global impacts, implementation of this Capacity Development Strategy also calls upon the international community for their support to actions that Madagascar would undertake to meet the country's own sustainable development goals. The recent return to Madagascar of the international donor community to catalyze improved environmental and development governance is an important opportunity for the GEF to leverage important benefits for the global environment.

169. The Capacity Development Strategy is complemented by an Action Plan that outlines the set of priority focal area and cross-cutting capacity development actions to be implemented. As of October 2014, the Government of Madagascar is finalizing the national action plans under the three Rio Conventions, namely the National Biodiversity Strategy and Action Plan under the CBD, the National Action Plan under the CCD, and the National Communication (which includes recommended actions) under the FCCC. All three are expected to be completed by the end of 2014.

E.2 Implementation steps

170. The Capacity Development Action Plan would be implemented through an on-going strategic assessment of the Government of Madagascar's overall environmental programme and current portfolio. Particular attention should be paid to issues of complementarity, synergies, partnerships, stakeholder involvement, resource mobilization, absorptive capacity, and importantly political commitment.

171. The first step towards implementing this Action Plan is the convening of key decision-makers to organize and prioritize the programming of capacity development actions. In mid-September 2014, a donor roundtable meeting was held to review the wider programming of development support in Madagascar, one theme being environment. Following these consultations, the Government of

Madagascar would finalize and prepare other national action plans, such as the National Biodiversity Strategy and Action Plan (NBSAP) and the National Action Plan to Combat Desertification and Drought (NAP), both of which are being financed by the GEF.

172. Another step to be undertaken is the preparation of the National Portfolio Formulation Exercise, which programmes the GEF Star Allocation under the GEF-6 cycle for Madagascar (2014-2019). This exercise would be carried out through broad consultations with both government decision-makers and planners, as well as with representatives from non-state actors, such a NGOs, civil society and academia.

173. The capacity development actions for each of the three thematic areas are intended to inform the on-going consultations and development of the separate GEF Enabling Activities, the NBSAP and NAP, as well as the capacity development recommendations in the Third National Communication to the UNFCCC. Importantly, the recommended capacity development actions, both thematic and cross-cutting, are actions that should also find themselves within focal area projects, such as the GEF full size projects on Landscape Level Conservation and Climate Resilience.

174. The capacity development actions should also integrated into non-GEF projects that are being developed and implemented by other bilateral and multilateral development partners. These consultations have been an on-going process of consultations with development partners in Madagascar, and would continue to strengthen partnerships and synergies, reduce unnecessary overlap, and important address any important capacity development gap.

175. In addition to the implementation of the recommended capacity development action through existing and planned programmes and projects, the direct implementation of the capacity development actions recommended by the NCSA will begin with a Cross-Cutting Capacity Development (CCCD) project. This project was conceptualized on the basis of the cross-cutting capacity development recommendations.

176. The lead government institution envisaged to oversee these consultations and negotiations is the Ministry of Environment, Ecology and Forests, in close consultation and coordination with other key ministries, such as those covering issues of finance, land management, agriculture, rural development, and energy. The Project Steering Committee that was created under the NCSA could be used to give direction and facilitate this process, supported the Directorate of Planning, Programming, Monitoring and Evaluation. The national thematic technical working groups that were established under the NCSA could also be convened to provide on-going technical inputs into strategic programming of the thematic as well as cross-cutting capacity development actions to the Project Steering Committee.

Monitoring and evaluation of capacity development actions aim to inform re-alignment of existing and planned interventions

E.3 Monitoring and evaluation

177. The monitoring and evaluation of the capacity development actions would be first carried out by the monitoring and evaluation processes of the individual projects. This includes using the Capacity Development Scorecard that is to be used for the CCCD project (See Annex G). This scorecard could also be used to evaluate the Government's portfolio of environmental projects on an annual basis. Importantly, the monitoring and evaluation of capacity development actions should not be limited to projects, but also to the regular activities undertaken by the various government directorates and departments.

178. The purpose of the monitoring and evaluation of these capacity development actions are to inform the strategic re-alignment of existing and planned interventions. This would ensure that the allocated resources in both financial and human resources are being effectively used. While the monitoring and evaluation of the individual projects are guided by their respect plans, that of the overall portfolio would be serve to identify remaining capacity development gaps. This exercise would thus allow for a more strategic programming of new or existing projects. The principles of the monitoring and evaluation plan are therefore to:

- Secure follow-up to the Action Plan and measure its success over time;
- Ensure that those responsible for the Plan respond to new information and changing circumstances by updating the capacity assessment and Action Plan recommendations;
- Take the necessary steps if actions recommended in the plan are not being implemented;
- Document successes that can be built on within the country and shared with other countries; and
- Provide information on the successes, failures, and lessons learned in undertaking capacity development efforts.

179. Given the existing mandate of the Directorate of Planning, Programming, Monitoring and Evaluation of the MEEF, this directorate and ministry is expected to continue serving as the administrative agency to oversee monitoring and evaluation of the MEAs. The MEEF would initiate the monitoring and evaluation process by developing detailed terms of reference that build upon existing and best practice frameworks, and which will include roles, responsibilities, as well as accountability mechanisms for each participating agency and directorate. Among the monitoring and evaluation procedures would be the convening of national technical working groups to discuss the progress being made as well as to make appropriate recommendations to the re-constituted NCSA Project Steering Committee. The monitoring and evaluation process would be aligned with those of the bilateral and multilateral development agencies, including UNDP.

Projects should take an adaptive collaborative management approach from the beginning, engaging stakeholders throughout the entire project lifecycle

180. The foundation of the GEF's Capacity Development Programme is to strengthen environmental sustainability, more specifically to institutionalize the key sets of individual, institutional, and systemic capacities necessary for global environmental outcomes to be sustained over the long-term. Indeed, this process began with the NCSA as an extensive national collaborative exercise that, in addition to updating and highlighting the priority capacity development needs that underscored sustainability, the NCSA was a process that a process that also served to strengthen the legitimacy of capacity development actions. However, in order that development capacities for environmental sustainability to be realized, there are a number of other important criteria[16] that must be incorporated into the strategic design of projects and their implementation arrangements.

The communication strategy is premised on the need to facilitate a widely held and shared understanding of progress and on-going challenges to achieve environmental sustainability

181. To this end, projects should take an adaptive collaborative management approach, one that brings together representatives from all key stakeholder groups early on in the design stage. Stakeholders should also be engaged throughout project implementation in order to appropriately adapt project activities in keeping the agreed project objectives and goal. Annex B is an overview of the principles and approach of adaptive collaborative management.

E.4 Communication strategy

182. The communication strategy is premised on the principle that the progress being made as well as on-going challenges and barriers must be communicated broadly and as widely as possible. The rationale for this approach is to facilitate the on-going identification of opportunities for continued improvements, synergies, partnerships, and buy-in. The communication strategy is thus related to the consultative process for the adaptive collaborative management of the individual projects and the environmental portfolio as a whole.

183. Communicating the results and findings will also be an activity that would be financed by the communication activities of existing programmes and projects. These should be broadened to include relevant lessons learned and best practices. The communication products would include using social

[16] See Annex A.

media to have a wide reach among the public and civil society, but also short articles that are posted to the websites of the MEEF and other organizations, as appropriate. Other national media outlets, such as newspapers and radio, including public service announcements are options that are included in some of the projects. Television is also considered a cost-effective measure of raising public awareness more widely in Madagascar. Awareness and understanding of environmental issues among journalists and producers in national media outlets need to be strengthened to help reach the country's public. An important communication activity would be the convening of public dialogues among groups of stakeholders on topical issues, notably on those that serve to raise the understanding of the human-ecologic linkages as well as how local activities impact the global environment and more importantly how global environmental trends affect local development issues. A number of conservation projects already include similar types of capacity building, such as the annual Biodiversity Reporting Award for journalists.

184. The private sector is a particular important stakeholder to environmental issues. This is of particular importance in that a high value capacity development activity is to mainstream global environmental obligations into development projects. Indeed, a central aim of GEF-6 is to promote and increase the engagement of the private sector in development activities that contribute to meeting global environmental outcomes. This requires that strong efforts to engage private sector representatives in the consultative process of project design and implementation.

185. Other key stakeholders are those from the rural areas in that they have a major stake in the sustainable management of natural resources. For the most part, these stakeholders are most at risk from land degradation as well as contributing to it through poor and unsustainable land management practices. They are also contributing to the loss of important species through the degradation of their natural habitats and hunting of wild species. However, for the communication strategy to be effective to rural stakeholders, it must be complemented with activities that seek to address their real socio-economic needs. The communication strategy to these stakeholders should therefore be designed on the basis of local and regional consultations that are to identify these needs and develop sustainable alternative livelihood options.

186. Key to the implementation of capacity development actions is the upward communication of the recommendations to integrate and harmonize environmental legislation with other sectoral policies, and the adaptive collaborative management of programmes and projects to create synergies and economies of scale. The communication strategy should therefore include national policy dialogues at least once per year in order to raise awareness among policy-makers and parliamentarians as means to build their political support to integrate environmental considerations into national policy frameworks.

187. The communication strategy should also include bilateral and multilateral development partners, the most recent of which can be considered the donor roundtable that was convened in mid-September. Meetings with the donor and development community is a regular consultative process in Madagascar, and the value of these consultations will be manifest to the extent that they result in increased programming of resources and technical assistance. The political stabilization and subsequent return of many development partners in Madagascar, coupled with the shared consensus of high priority environmental and development agenda of development partners, has the unintended consequence of donor crowding. This is particularly evident in the area of climate change, with the additional unintended consequence of insufficient resource allocation to other important national development priorities, such as biodiversity conservation in the productive landscape.

E.5 Resource mobilization

188. Each recommended action in the Action Plan represents a programme of capacity development to be undertaken. Taking into account the bottom-up approach by which the recommended actions were identified, the Action Plan represents a comprehensive set of capacity development activities that all development partners in Madagascar can undertake. That is, in addition to the Government of Madagascar, other development partners include the donor agencies working in Madagascar as well as the NGO and civil society community. The private sector and academia are equally important development partners that should be engaged in the implementation of priority actions.

189. The first exercise to be undertaken to implement the Capacity Development Strategy and Action Plan is thus to facilitate an engagement of development partners in Madagascar to exchange views on the prioritization of capacity development actions. This will begin with the process of reconciling the recommendation actions.

190. While the government is fully committed to implementing the capacity development actions, this requires significant financial resources, both in the short-term and in the long-term. In the short-term, funding is required to bridge the good practice approaches that were carried out under the project. These are largely to continue the work of the NCSA Project Management Unit as a service under the DPPSE to organize policy and programme coordination to ensure that the capacity development actions are covered by the appropriate projects and/or corporate activities of the MEEF. That is, the project management unit that was established under the NCSA should be institutionalized.

191. In the immediate term, GEF resources are being requested to finance a subset of the cross-cutting capacity development actions outlined in Section E.4. The concept paper for this project is outlined in this report. A number of the thematic capacity development actions will also be carried out in the two GEF projects currently under development (Landscape Level Conservation and Climate Resilience).

192. The results of on-going consultations with donors in Madagascar between September and December 2014 will further inform resource mobilization to implement the capacity development actions. The resource mobilization strategy that began under the NCSA should continue under the aegis of the MEEF.

193. The financial resources that were made available by the GEF during the Fifth and Sixth Replenishments require co-financing, and why consultations and negotiations with the donor community in Madagascar are critical to leverage the available GEF resources. The GEF Sixth Replenishment has a Star Allocation of US$ 30 million between 2014 and 2017; however, Madagascar is currently developing projects to make use of the GEF-5 allocation. One of the reasons for the reduction in the GEF Star Allocation in GEF-6 is due to the inability of Madagascar to develop GEF-5 projects, which in turn was due in large part by the political crisis between 2009 and 2013.

Resource mobilization must not be limited to the international donor community, but include important investments from within Madagascar

194. With Madagascar just one year out of the political crisis and the international donor community returning, the challenge is not the availability of bilateral and multilateral donor resources, but rather the absorptive capacity to access these funds and to implement capacity development actions with cost-effective and timely delivery.

195. Importantly, the resource mobilization strategy must not be limited to securing international (bilateral and multilateral) donor resources, but to also leverage financial resources from government budgetary resources. While Madagascar needs important external financing, this is not to be relied on over the long-term. With the GEF Capacity Development Programme's goal to strengthen countries' capacities to achieve environmental sustainability, this includes addressing the financial sustainability of capacity development actions to be undertaken within the limitations of available national resources. Not only will this include financial resources from government budgetary resources, but also the available finances and in-kind contributions from other national stakeholders, namely the private sector, NGOs, academia, and civil society.

196. Socio-economic priorities are more clearly understood and valued given their direct relationship to health, prosperity and survival, whereas global environmental issues as framed by the MEAs are generally seen as more of a post-materialistic ideology. Resource mobilization in the context of the NCSA, and more broadly the GEF, is not limited to finances targeted to environmental and natural resource management, but also financing that is allocated to the other line ministries (such as agriculture, energy, water resources, and rural development) for policy and planning frameworks that reflect more holistic and good practices for environmentally sound and sustainable development. While financial allocations are traditionally directed to meet sectoral development objectives, the GEF

Capacity Development Programme envisions the use of incremental GEF financing to mainstream global environmental obligations into sector development policies, programmes, and plans.

Significant financial resources are needed to improve Madagascar's national capacities to meet the challenges of environmentally sound and sustainable development, while at the same time meeting MEA obligations

197. The resource mobilization strategy is to be complemented by the monitoring and evaluation consultative process, with briefings and consultations with parliamentarians and other key policy-makers in order to develop champions in support of financial allocations to environmental mainstreaming. This includes securing the commitment of the existing and future budgets of line ministries to allocate resources for environmental mainstreaming. Resource mobilization should also take into account the resources available for implementing capacity development actions at the sub-national level.

198. For resource mobilization to be effective and sustainable, capacity development actions include the training of individuals to prepare multi-disciplinary proposals and related resource mobilization skills. Specific measures should be taken to promote partnerships with a view to mobilize resources from various actors. Such measures should include training in negotiation skills, development of guidelines for mainstreaming MEAs in both national, regional and local development and budgeting frameworks, organizing partnership fora, increased advocacy for MEA issues and sensitization of the private sector on their role in implementation of MEAs and the possible sources of funds (e.g. carbon funds). These measures should enhance the integration of MEAs into national development plans and improve the capacity of key actors to mobilize donor financing for MEA implementation.

199. Donors have provided significant investments to strengthen Madagascar's capacities to meet global environmental obligations. Tables 4 and 5 below[17] identify those projects that were financed through GEF grants, which include the estimated amount of estimated co-financing. While this table does not specifically identify the sources of co-financing, these include important investments from bilateral and multilateral donor agencies, resources from the national government, both in-kind and cash, as well as contributions from a wide range of non-state stakeholders. Since the GEF began disbursing grants, the total amount of the GEF contribution to date is approximately US$ 97.5 million, complemented by an estimated US$ 504.5 million.

200. In addition to the national projects, the Tables 6, 7, and 8 also include GEF-financed global and regional projects in which Madagascar was a participating country to benefit from capacity development. Since the GEF began disbursing grants, the total amount of the GEF contribution to date is approximately US$ 203.5 million, complemented by an estimated US$ 559.3 million, taking into account that Madagascar only benefits from a fraction of these resources.

[17] Information for Tables 4 – 8 are based on information accessed from the GEF website, http://www.thegef.org/gef/gef_projects_funding, on 28 October 2014.

Table 4: GEF-Funded Biodiversity Conservation projects

Project Name	Focal Area	Agency	GEF Grant	Co-financing	Status
Strengthening the Network of New Protected Areas in Madagascar	Biodiversity	UNEP	3,905,265	12,200,000	Council Approved
Conservation of Key Threatened Endemic and Economically Valuable Species in Madagascar	Biodiversity	UNEP	5,650,000	14,010,103	Council Approved
A Landscape Approach to Conserving and Managing Threatened Biodiversity in Madagascar with a Focus on the Atsimo-Andrefana Spiny and Dry Forest Landscape	Biodiversity	UNDP	5,329,452	26,050,000	Council Approved
Environment Program Support Project	Biodiversity	UNDP	20,800,000	135,200,000	Project Closure
First National Report to the CBD	Biodiversity	UNEP	25,000	0	Project Closure
Clearing House Mechanism Enabling Activity	Biodiversity	UNEP	10,000	10,000	Project Closure
Biodiversity Enabling Activities Add-on: Assessment of Capacity Building Needs and Establishment of a National Clearing House Mechanism	Biodiversity	UNEP	191,000	50,000	Project Closure
Third Environment Programme	Biodiversity	World Bank	13,500,000	135,350,000	Project Completion
Participatory Community-based Conservation in the Anjozorobe Forest Corridor	Biodiversity	UNDP	975,000	570,000	Project Completion
Consultations for the Second National Report on Biodiversity (add on)	Biodiversity	UNDP	25,000	10,000	Under Implementation
BS Support for Implementation of the National Biosafety Framework of Madagascar	Biodiversity	UNEP	613,850	290,000	Under Implementation
Madagascar's Network of Managed Resource Protected Areas	Biodiversity	UNDP	6,000,000	9,075,000	Under Implementation
Support to the Madagascar Foundation for Protected Areas and Biodiversity (through Additional Financing to the Third Environment Support Program Project (EP3)	Biodiversity	World Bank	10,000,000	34,300,000	Under Implementation

Table 5: GEF-Funded Climate Change, Land Degradation, Persistent Organic Pollutants, and Capacity Development projects

Project Name	Focal Area	Agency	GEF Grant	Co-financing	Status
Adapting Coastal Zone Management to Climate Change in Madagascar Considering Ecosystem and Livelihoods	Climate Change	UNEP	5,337,500	11,965,000	CEO Endorsed
Enabling Climate Resilience in the Agriculture Sector in the Southwest Region of Madagascar	Climate Change	AfDB	6,272,000	33,000,000	CEO Endorsed
Increased Energy Access for Productive Use through Small Hydropower Development in Rural Areas	Climate Change	UNIDO	2,855,000	14,145,000	Council Approved
Enhancing the Adaptation Capacities and Resilience to Climate Change in Rural Communities in Analamanga, Atsinanana, Androy, Anosy, and Atsimo Andrefana	Climate Change	UNDP	5,877,397	34,300,000	Council Approved
Preparation of a National Action Program to Adapt to Climate Changes	Climate Change	World Bank	200,000	25,000	IA Approved
Enabling Madagascar to Prepare its Initial National Communication in Response to its Commitments to UNFCCC	Climate Change	UNDP	350,000	0	Under Implementation
Alignment of National Action Programme to the UNCCD 10 Years Strategy and Preparation of the Fifth Reporting and Review process	Land Degradation	UNEP	136,364	150,000	IA Approved
Participatory Sustainable Land Management in the Grassland Plateaus of Western Madagascar	Land Degradation	UNEP	1,584,931	5,345,500	PIF Approved
Strategic Investment Programme: Watershed Management	Land Degradation	World Bank	5,900,000	33,149,433	Under Implementation
Strategic Investment Programme: Stabilizing Rural Populations through Improved Systems for SLM and Local Governance of Lands in Southern Madagascar	Land Degradation	UNDP	910,000	5,000,000	Under Implementation
National Capacity Self-Assessment (NCSA) for Environmental Management	Multi Focal Area	UNDP	200,000	20,000	IA Approved
Development of Minamata Initial Assessment in Madagascar	POPs	UNEP	182,648	200,000	CEO Approved
Enabling Activities to review and update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	POPs	GEF Sec	150,000	20,000	CEO Approved
Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants (POPs): National Implementation Plan for Madagascar	POPs	UNEP	499,000	25,000	Project Closure

Table 6: GEF-Funded Global projects in which Madagascar is a beneficiary

Project Name	Focal Area	Agency	GEF Grant	Co-financing	Status
Biodiversity Country Studies - Phase II	Biodiversity	UNEP	2,000,000	100,000	Project Closure
Technical Assistance to Francophone LDCs to Implement the UNFCCC8/CP8 Decision	Climate Change	UNDP	211,126	38,000	CEO Approved
4th Operational Phase of the GEF Small Grants Programme (RAF1)	Multi Focal Area	UNDP	13,647,498	0	Project Completion
4th Operational Phase of the GEF Small Grants Programme (RAF2)	Multi Focal Area	UNDP	42,714,904	43,000,000	CEO Endorsed
Support to GEF Eligible Parties (LDCs & SIDs) for the Revision of the NBSAPs and Development of Fifth National Report to the CBD - Phase 1	Biodiversity	UNEP	6,798,000	6,500,000	Under Implementation
Enhancing the Conservation Effectiveness of Seagrass Ecosystems Supporting Globally Significant Populations of Dugong Across the Indian and Pacific Ocean Basins (Short Title: The Dugong and Seagrass Conservation Project)	Biodiversity	UNEP	4,902,272	17,822,950	CEO Endorsed
Alliance for Zero Extinction (AZE): Conserving Earth's Most Irreplaceable Sites for Endangered Biodiversity	Biodiversity	UNEP	1,922,813	4,400,000	P.M. Recommended
Global Forest Watch 2.0 FW 2.0	Multi Focal Area	UNEP	5,342,465	68,300,000	Council Approved
Knowledge for Action: Promoting Innovation Among Environmental Funds	Biodiversity	UNEP	913,240	2,522,800	PIF Approved
Umbrella Programme for Biennial Update Report to the United National Framework Convention on Climate Change (UNFCCC)	Climate Change	UNEP	12,936,000	1,252,500	CEO PIF Clearance

Table 7: GEF-Funded Regional projects implemented by UNEP in which Madagascar is a beneficiary

Project Name	Focal Area	Agency	GEF Grant	Co-financing	Status
Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities	International Waters	UNEP	10,867,000	66,710,185	Council Approved
Multi-Country Project to Strengthen Institutional Capacity on LMO Testing in Support of National Decision-making	Biodiversity	UNEP	3,860,000	6,546,500	Council Approved
Disposal of PCB Oils Contained in Transformers and Disposal of Capacitors Containing PCB in Southern Africa	POPs	UNEP	7,710,000	31,440,000	Council Approved
Support to Preparation of the Second National Biosafety Reports to the Cartagena Protocol on Biosafety-Africa	Biodiversity	UNEP	993,950	840,000	IA Approved
Demonstration of Effectiveness of Diversified, Environmentally Sound and Sustainable Interventions, and Strengthening National Capacity for Innovative Implementation of Integrated Vector Management (IVM) for Disease Prevention and Control in the WHO AFRO Region	POPs	UNEP	15,491,700	118,720,000	PPG Approved
Addressing Land-based Activities in the Western Indian Ocean (WIO-Lab)	International Waters	UNEP	4,186,140	6,902,325	Project Completion
In-situ Conservation of Crop Wild Relatives through Enhanced Information Management and Field Application	Biodiversity	UNEP	5,827,025	6,516,969	Project Completion
Integrating Vulnerability and Adaptation to Climate Change into Sustainable Development Policy Planning and Implementation in Southern and Eastern Africa	Climate Change	UNEP	1,000,000	1,265,000	Project Completion
Demonstrating Cost-effectiveness and Sustainability of Environmentally-sound and Locally Appropriate Alternatives to DDT for Malaria Control in Africa	POPs	UNEP	5,485,466	5,986,810	Under Implementation
Supporting the Development and Implementation of Access and Benefit Sharing Policies in Africa	Biodiversity	UNEP	1,177,300	795,950	Under Implementation

Table 8: GEF-Funded Regional projects implemented by UNDP, UNIDO, and the World Bank in which Madagascar is a beneficiary

Project Name	Focal Area	Agency	GEF Grant	Co-financing	Status
Reducing UPOPs and Mercury Releases from the Health Sector in Africa	POPs	UNDP	6,453,195	25,810,000	CEO Endorsed
Western Indian Ocean LMEs Strategic Action Programme Policy Harmonization and Institutional Reforms SAPPHIRE Project	International Waters	UNDP	10,976,891	68,802,000	Council Approved
Programme for the Agulhas and Somali Current Large Marine Ecosystems: Agulhas and Somali Current Large Marine Ecosystems Project (ASCLMEs)	International Waters	UNDP	12,200,000	18,262,500	Under Implementation
Promotion of BAT and BEP to Reduce uPOPs Releases from Waste Open Burning in the Participating African Countries of COMESA-SADC Sub-regions	POPs	UNIDO	6,615,000	26,460,000	Council Approved
Strategic Investment Programme: Monitoring Carbon and Environmental and Socio-Economic Co-Benefits of BioCF Projects in SSA	Land Degradation	World Bank	915,000	12,867,500	CEO Approved
Strategic Investment Programme for SLM in Sub-Saharan Africa	Land Degradation	World Bank	1,893,673	0	Council Approved
Western Indian Ocean Islands Oil Spill Contingency Planning	International Waters	World Bank	2,814,000	1,123,000	Project Closure
Coral Reef Monitoring Network in Member States of the Indian Ocean Commission (COI), within the Global Reef Monitoring Network (GCRMN)	Biodiversity	World Bank	737,240	623,847	Project Closure
Institutional Strengthening and Resource Mobilization for Mainstreaming Integrated Land and Water Management Approaches into Development Programs in Africa	Multi Focal Area	World Bank	975,000	300,000	Project Closure
Supporting Capacity Building for the Elaboration of National Reports and Country Profiles by African Parties to the UNCCD	Land Degradation	World Bank	900,000	900,000	Project Closure
Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project	International Waters	World Bank	11,000,000	14,500,000	Project Completion

F. CAPACITY DEVELOPMENT ACTION PLAN

201. The Capacity Development Action Plan is effectively in two parts. The first is for capacities to be developed within the construct of focal area projects, whether they are funded by the GEF or by other donors; and second by a cross-cutting capacity development (CCCD) project. Planners and project proponents should consider the recommended priority actions, which are organized by the three typologies of capacities: systemic, institutional and individual.

202. The Capacity Development Action Plan does *not rank* the actions. One action should not be seen as more of a priority than others because the institutional contexts may be different. Second, due to a changing socio-economic and environmental landscape, not to mention political landscape, the priority of actions may change. In the months following the preparation of this NCSA report, Madagascar will be finalizing their Action Plans under the Convention on Biological Diversity and Convention to Combat Desertification and Drought, as well as the National Communication to the Framework Convention on Climate change, which also include recommended capacity development actions. These three reporting exercises will benefit from the NCSA process to structure robust action plans under the three Rio Conventions.

203. Developing *systemic capacities* call for addressing the over-arching policy and legislative frameworks that serve to legitimize, validate and reinforce conservation efforts. In addition to facilitating the implementation of conservation efforts, strengthening systemic capacities will also help ensure the sustainability of the capacities developed and the outcomes that were produced. This includes ensuring the financial sustainability of project outcomes as well as broad-based awareness and valuing of global environmental conservation.

204. The *institutional capacities* target the strengthening of organizational structures and mechanisms that are needed to operationalize policies and legislations. These are largely strengthening procedures and processes, and could include updating technology requirements as well as techniques, guidelines, and demonstrating best applicable practices. *Individual capacity development* calls for strengthening the technical capacities of stakeholders on better practices for environmental conservation and associated activities. For the most part, these are carried out in conjunction with the institutional capacity strengthening activities.

205. Environmental capacity development projects are to include a number of other specific capacity development needs. The NCSA identified a number of specific types of capacities that are currently inadequately developed. Not only are these capacity development priorities to be undertaken by focal area projects, these can be organized within the construct of a cross-cutting capacity development project.

206. The thematic capacity development actions presented here are not a verbatim reporting of those identified in their respective NCSA Thematic Assessment Reports, but rather a summary and synthesis to convey the main essence of the priorities. As a result, some of the priority actions that were identified as one capacity typology have been included in another capacity typology. The Thematic Assessment Reports should be consulted for further details on the recommended thematic capacity development actions, which includes identifying the target stakeholders and suggested timeframes.

207. The cross-cutting capacity development actions on the other hand were developed on the basis of a one-day technical meeting and working group sessions. These cross-cutting capacity development actions, as mentioned above, are not ranked since changing contexts could result in shifting rankings. Rather, the cross-cutting capacity development actions serve as a basis for legitimizing country-driven bottom-up interventions.

F.1 Actions to conserve biodiversity

Capacity Typology	Priority Action	Description
Systemic	Update the appropriate environmental laws	Madagascar's existing legislative framework governing biodiversity conservation should be updated as appropriate to address important gaps and weaknesses
	Enhance the media's understanding of biodiversity values	The media plays an important role in conveying sound information about environmental issues, helping to promote improved environmental awareness among the public
	Rationalize material and financial resources for capacity building managers	This action refers to the need to provide the managers responsible for carrying out conservation efforts with the necessary resources to ensure effective and timely implementation
	Facilitate the transfer of jurisdiction and authority at the decentralized level	The NCSA called for greater efforts to allow decisions related to biodiversity conservation to take place at the sub-national level
	Allocate funds for biodiversity conservation at the regional level	Resource mobilization at the regional level should include financing for biodiversity conservation
	Update the fokonolona (village council) policy (and accompanying procedures) for awarding access to natural resource rights.	This action would strengthen the legitimacy and mandates of local action to reconcile biodiversity conservation priorities with other local priorities, while maintaining the principles of protecting endangered endemic species.

Capacity Typology	Priority Action	Description
Institutional	Strengthen the institutional capacity of the relevant ministries to improve the system for coordinating actions	This action speaks more specifically to internal procedures and processes deemed as necessary improvements for more cost-effective implementation of institutional mandates, in particular the DCBSAP, CIREF, and regional directorates in charge of biodiversity.
	Establish a system of coordinated and streamlined resource mobilization	At the institutional level, more effective resource mobilization procedures and mechanisms are to be undertaken in order to secure sufficient levels of timely financing for biodiversity conservation efforts at both the national and sub-national levels
	Establish an updated and adaptive procedure for species and ecosystem management	This includes a broad range of activities that call for updating management practices based of best practices and lessons learned for the effective preservation and sustainable management of biodiversity
	Strengthen enforcement procedures	There are a number of existing policies, laws, regulations, and procedures that must be enforced if biodiversity is to be conserved and sustainably managed
	Improve the communication and coordination of regional stakeholders to ensure that actions are more effective	This action emphasizes the need strengthen the capacities of regional stakeholders to employ the best available management and conservation practices
	Strengthen data and information management systems, including the institutionalization of national-level portals	Environmental data and information management systems are to be strengthened in order to facilitate the development of more complex and resilient biodiversity conservation policies, programmes, and management plans (e.g., the Biodiversity Network of Madagascar and REBIOMA)
	Revitalize existing regional and national structures for the collection and sharing of data	Data collection and management systems are to be strengthened in order to better inform planning and decision-making
	Harmonize actions among actors, particularly among those actors involved in implementation	The roles and responsibilities of various actors need to be better reconciled in order to reduce unnecessary overlap, eliminate management gaps and weaknesses, and create synergies through improved collaboration and partnerships (e.g., DCBSAP and CNGIZC regarding marine protected areas)
	Establish an appropriate structure for the implementation of regional projects	This structure is not intended to replace the mandates of regional and local authorities, or even those of NGOs or civil society organizations currently undertaking conservation efforts, but rather to work with them to catalyze the much needed increased conservation efforts

Capacity Typology	Priority Action	Description
Individual	Raise public awareness, in particular among those involved in law enforcement, as well as judicial entities and elected officials	Although a number of governmental officials and staff understand and appreciate the value of biodiversity conservation and the importance of national laws and regulations, this is insufficient. Policy- and decision-makers are key stakeholders that need to support biodiversity conservation obligations. Those responsible for enforcing biodiversity conservation laws, regulations, and standards are equally important stakeholders to ensure a sufficiently critical mass of behaviour that is consistent with the underlying principles of sustainable development
	Inform and train actors on the implementation of environmental policy and the need to implement the Nagoya Protocol on sharing benefits	Madagascar's high degree of endemism requires significant technical capacities to identify and research the ecosystem requirements for their preservation, as well as their potential value to sustainable development
	Strengthen the capacities of staffs and other stakeholder practitioners, both governmental as well as outside of government, to carry out actions related to the implementation of the CBD	While there are specific skills needed to conserve biodiversity, many of which currently do exist in Madagascar, there are an insufficient number of individuals with these skills. This action will help minimize the impact of brain-drain where skilled individuals seek more financially lucrative employment in other sectors
	Strengthen capacities to create knowledge, in particular on purely technical and methodological aspects of implementation (e.g., restoration of corridors)	This specific technical capacity highlights the need to go beyond the collection of data and management of information, but rather to create new knowledge that is specific to the Madagascar context. This includes the need to strengthen the analytical skills of practitioners and pursue applied research
	Adapt awareness-raising programmes to account for local realities	Cultural values and traditional practices are important forces that can work against biodiversity conservation efforts. The feasibility and sustainability of such efforts depends on local stakeholders legitimizing these efforts

F.2 Actions to combat desertification and drought (land degradation)

Capacity Typology	Priority Action	Description
Systemic	Strengthen the implementation of the CCD National Action Plan	This priority action sets out to strengthen the legitimacy and innovativeness of meeting CCD obligations by mainstreaming the relevant global environmental obligations within the framework of the country's broader national strategies and policies. This action would include complementary capacity building to improve the awareness and understanding of roles and responsibilities to implement an aligned National Action Plan as well as to improve its associated monitoring and evaluation
	Strengthen the coordination of activities related to combatting desertification, land degradation and drought	This action calls for setting up or strengthening an existing structure to oversee the coordination of all three Rio Conventions in a way that will reduce unnecessary duplication of efforts and create economies of scale through administrative and overhead costs. This action also includes the strengthening of individual capacities of the National Focal Point to more effectively carry out her[18] functions. This action also includes strengthening coordination with regional and other sub-national entities that have comparative advantages in addressing land degradation. This would be supported by complementary consultative processes, such as technical advisory committees
	Update resource mobilization strategies	More strategic and innovative resource mobilization is central to securing and sustaining adequate levels of financial resources to effectively address land degradation activities. This includes mobilization of finances from domestic sources and strengthening individual capacities to carry out financial analyses and negotiate resource mobilization. This also includes preparing feasibility studies and project proposals to mobilize financial resources to implement programme activities

[18] At the time of writing, the CCD Focal Point is a female.

Capacity Typology	Priority Action	Description
Institutional	Improve the mandates and skillsets of relevant environmental entities at the national and regional levels responsible for ensuring the integration of environmental policies, programmes and projects for development of the sector	Organizational mandates of relevant entities need to be revised to better integrate CCD obligations and best practices, and complemented by improved technical skills of their staffs and partner institutions. This includes strengthening partnerships between governmental entities, in particular the environmental units in each line ministry, as well as with non-state organizations and associations.
	Harmonize information systems of desertification and drought, including data and information collection, analysis, and sharing	Methodologies and standards need to be updated and standardized, in particular to ensure congruency with international standards. Databases also need to be more networked to create synergies and reduce unnecessary duplication
	Strengthen the managerial skills of government organizations at the national and regional levels and civil society	Civil society plays a valuable role to fill important gaps in resource management. They should be supported with similar land management tools, in particular for the collection and dissemination and data and information

Capacity Typology	Priority Action	Description
Individual	Raise awareness of the impacts and causes of desertification and drought issues	This action complements many, if not all, of the systemic and individual capacities to place a higher premium on sustainable land management, in particular for decision-makers, practitioners, and local resource users
	Improve skills and new techniques to better combat desertification and drought	These technical skills complement the institutional capacities needed to create knowledge and apply research for more innovative and sustainable land management practices. Among others, this includes training on the use of natural resource valuation and cultural anthropology to better inform planning and decision-making. Partnerships and collaboration will also catalyze the transfer of knowledge and competencies among actors and stakeholders

F.3 Actions to address climate change

Capacity Typology	Priority Action	Description
Systemic	Mainstream climate change obligations within national sectoral policies, programmes, and plans	Climate change issues can be more realistically addressed when integrated within the framework of national development frameworks.
	Strengthen legislative frameworks to better take into account international climate change obligations	In addition to mainstreaming the FCCC into national laws and regulation, this action includes reconciling sub-national (regional and local) policies and by-laws to be consistent with FCCC obligations, as appropriate. Monitoring the operationalization of these national laws will also reinforce their impact and legitimacy, as well as highlight important gaps and weaknesses.
	Mobilize financial resources to catalyze national actions to adapt to and mitigate the impacts of climate change	Despite the many international donors now working in Madagascar, these need to be carefully managed in order to ensure that resources are directed to programmes and activities that will equally emphasize adaptation as well as mitigation. However, financial resources from the state budget are equally important, and efforts need to be undertaken to raise the political will to allocate more government appropriations to address climate change issues. More resources should also be directed to regional and local government authorities. The private sector is another source of potential financing that needs to be explored.

Capacity Typology	Priority Action	Description
Institutional	Strengthen coordination and collaboration to more strategically address climate change	The general low absorptive capacity in Madagascar to address climate change can be addressed by improved partnerships and coordination. This requires improved communication between stakeholders at both the national and sub-national levels, including research institutions and the private sector. This may include the strengthening of existing organizational bodies, such as the Directorate on Climate Change to oversee coordination on climate change issues and/or the establishment of an overall national coordination unit on capacity building. Collaboration on research is also to be strengthened.
	Clarify, strengthen, and provide training on defined roles, responsibilities and good practices for social actors to address climate change	Institutional knowledge is an important barrier to action and sustainability, which would be address by developing clear guidelines and procedures based on good practices to address climate change. Institutional mandates are to be strengthened within the framework of legislative frameworks. This action also includes developing and implementing a comprehensive training programme tailored to national and regional needs, and mobilizing the necessary technical capabilities from existing institutions in Madagascar. Materials would be produce to help institutionalize good practices.
	Develop and implement a comprehensive strategy for recruiting and retaining technical staff to address climate change	This action serves to improve the system of human resource management for both government and non-state organizations on climate change issues. Incentives are needed to retain the skilled and experienced staff, while at the same time ensuring the new staff with more advanced skills and expertise are equally necessary.
	Improve the involvement of regional and local authorities in decision-making on climate change	Regional government and local authorities play a key role in undertaking on the ground action to address climate change, and thus play an important role in informing better policy and planning decisions taken at both the national and regional levels. This includes decentralizing authority to regional entities for addressing climate change.
	Undertake more research to develop and implement actions relevant to the Madagascar context	Academic research and applied research are sources of valuable knowledge that should be more available to inform planning and decision to address climate change.
	Strengthen the management of data and information for improved decisions and planning to address climate change	This is a comprehensive action that calls for, among others, to update database hardware and software, develop data and information management tools and methodologies, protocols for accessing and sharing data and information, and complemented by technical training (see individual capacities).

Capacity Typology	Priority Action	Description
Individual	Develop and implement a comprehensive awareness programme to address climate change	This includes carrying out a number of public dialogues to raise awareness among planners, decision-makers, and other stakeholders on the importance of climate change to local socio-economic priorities.
	Develop and implement a comprehensive training on technical good practices for addressing climate change	Addressing climate change calls for very specific technical expertise, which this action will address. The majority (if not all) training would be undertaken through learning-by-doing exercises. This includes training on the analytical skills and methodologies to develop climate models and calculating greenhouse gas emissions.
	Develop and implement a strategic programme of public awareness events on climate change issues	This programme is targeted to the general public, and includes convening public dialogues and conferences at the national and regional levels.

F.4 Actions to strengthen capacities that cut across the three Rio Conventions

208. In addition to the need to strengthen capacities targeted to specific thematic needs outlined above, the NCSA identified capacity development needs that were shared by all three Rio Conventions. The following capacity development recommendations speak to the need to strengthen the underlying capacities that will emphasizes the sustainability of global environmental outcomes.

Capacity Typology	Priority Action	Description
Systemic	Improve the quality of legislative texts and policies to more effectively address MEA obligations	This action emphasizes the need to integrate MEA provisions into sectoral policies and programmes through their governing legislative frameworks, including regulation and by-laws that serve to enforce them
	Integrate MEA provisions in national, regional, and local level policy instruments	Building on improved awareness and understanding, key policy frameworks at all levels must fully reflect a more holistic construct of the complex relationships between the global and local environment, different environmental conservation approaches, and socio-economic priorities. At the same time, they must be characterized by features of resilience, adaptability, and sustainability.
	Strengthen public awareness of environmental policies, legislation, rules, and standards, and their associated institutional arrangements, with particular attention to law enforcement	Madagascar's policy and legislative framework is not adequately understood, in particular how to operationalize them with any great effectiveness or efficiency
	Raise public awareness at the national and sub-national levels on socio-economic linkages with the global environment, with particular attention to local communities, civil society, and sub-national authorities	Whereas there is some understanding of the linkages between the global environment and socio-economic priorities, this is largely by the more educated population and less so by those who are more dependent on the environment and natural resources. The country's poverty is a particular important barrier for the country's mass population to alter current practices that degrade the global environment.
	Undertake targeted awareness-raising activities with decision-makers and planners in socio-economic sectors to mainstream environmental dimensions, with particular attention to the global environment	Addressing and sustaining global environmental obligations will be better met by fully reconciling and integrating them within socio-economic planning frameworks. However, decision-makers and planners are key actors that must better understand and value this mainstreaming approach.
	Strengthen the media's awareness of MEA issues	The media is a key actor that plays an important role in catalyzing an appropriate awareness and understanding of the value of conserving the global environment, in particular to strengthen as widely as possible a consensus of views
	Improve resource allocation policies and strategies for MEA implementation at the sub-national level, including reconciling and harmonizing national development strategies and action plans with MEA obligations	The limited financial resources at the national level are generally always first allocated to socio-economic priorities, with inadequate or insufficient funding for environmental priorities. The sustainability of development outcomes is more likely achievable by putting in a place a more realistic and actionable approach to mobilizing financing to implement integrated global environmental and sustainable development planning frameworks.

Capacity Typology	Priority Action	Description
Institutional	Improve institutional arrangements for more equitable resource allocation for MEA implementation, including through partnerships with the private sector and streamlined government budgetary appropriation processes	The relatively low absorptive capacity for MEA implementation is due in part to unclear institutional arrangements and insufficient partnerships among social actors that have comparative advantages to implement MEAs. This action calls for clarifying and streamlining these arrangements, as well as estimating more accurate financial costs for their implementation, including opportunity costs. Costs can be reduced by improved institutional arrangements and partnerships the help reduce unnecessary redundancies and catalyze synergies.
	Update and improve institutional mandates to reflect best practices and innovative approaches for MEA implementation	Institutional mandates may require modification to more accurately reflect streamlined and innovative management practices to meet and sustain global environmental outcomes
	Strengthen institutional arrangements to facilitate and catalyze the exchange of data and information among all stakeholders.	More specific institutional arrangements, such as data sharing protocols, are needed to catalyze the sharing of data and information among official government bodies and non-state stakeholders, in particular at the grassroots level, private sector, NGOs, as well as across development sectors.
	Strengthen institutional and technical capacities of environmental directorates in each line ministry	A critical need to achieve environmental sustainability is to strengthen the environmental directorates in each line ministry. Their mandates and more specifically the technical and institutional arrangements need to be strengthened with a view to their absorptive capacity to soundly use the latest datasets, information and analytical methodologies to create and use knowledge.
	Strengthen human resource management, complemented by a recruitment and training programme tailored to national and sub-national (regional and local) needs to implement and sustain MEA obligations	Processes for recruiting and maintaining technical staffs are critical given the significant impact of staff turnover on the loss of institutional memory, which further limits absorptive capacities for MEA implementation.
	Strengthen inter-ministerial collaboration and coordination on MEA implementation, in particular among MEA focal points, their technical staffs, and associated stakeholder representatives at both the national and sub-national levels	Streamlined institutional arrangements and partnerships will be complemented by more official inter-ministerial mechanisms of collaboration and coordination, in particular between the local, regional and national levels, and will equally inform the revision of the appropriate institutional mandates
	Develop new and improved data and information management tools, including innovative indicators, for improved decision-making to meet MEA obligations	These tools are central to Madagascar being able to monitor and track MEA implementation. Government staff and other stakeholders will learn critically how to use these tools by their active involvement in their development.
	Harmonize data and information to improve planning and decision-making on the global environment	While there is much data and information in Madagascar, they are not easily accessible or in a form considered official for planning and decision-making. High quality standards are either lacking or not systematically applied.

Capacity Typology	Priority Action	Description
Institutional (cont.)	Upgrade data and information management hardware and software technical specifications, including access to high speed Internet access, in particular government institutions and academia	While technology is very much out of date, with Internet access very problematic, careful consideration of the best appropriate technology may mean choosing hardware and software that better suits the current absorptive capacities of key institutions.
	Catalyze collaboration and partnerships on applied research between academic and government institutions, among other stakeholder organizations at the national and sub-national levels	Advancements in designing more holistic and resilient plans and programmes that will meet MEA commitments can be better achieved through collaboration and partnerships that result in synergies and cost-effective actions
	Develop and implement communication programmes for improved awareness-raising on MEA issues	Legitimacy and sustainability will in large part depend on creating more broad-based support for environmentally sound and sustainable development that is informed by Rio Convention mainstreaming
	Develop operational guidelines for managers and decision-makers to more effectively carry out their roles and responsibilities	Project approaches to developing technical skills and knowledge can only be effectively institutionalized by having robust operational guidelines to ensure on-going trainings.
	Strengthen the role of the private sector to help implement actions to operationalize MEA provisions	Important opportunities to mobilize the private sector should be sought, in particular to minimize the potential negative impacts of development. This includes strengthening the quality of the EIA process.
	Strengthen the decentralized role and operations of existing national platforms (and other appropriate lobby groups) for improved MEA awareness	The roles and responsibilities of sub-national (local and regional) authorities and other stakeholders should be strengthened to more effectively catalyze the cost-effectiveness of their comparative advantages.
	Strengthen institutional capacities for improved and sustained MEA monitoring and enforcement at the national and sub-national (regional) levels, including the hiring of qualified technical and managerial staffs	Monitoring and enforcing MEA obligations requires that this be done at all levels – local, regional, and national. Best practices that link these institutional procedures, taking particular care to reconcile potential contradicting national social and economic priorities.

Capacity Typology	Priority Action	Description
Individual	Strengthen capacities to more effectively participate in international negotiations on MEAs and resource mobilization, in particular MEA focal points and their potential alternatives	While Madagascar participates in international MEA negotiations, this remains limited to a relatively small number of governmental staff. Particular attention needs to be given to resource mobilization that is needed to sustain action, taking into account the paucity of national financial resources.
	Provide learning-by-doing training to government officials, including parliamentarians, on targeted skills to improve policy and legislative texts	Adaptive collaborative management and learning-by-doing to government officials is particularly important in order to improve the ability of government officials to make better decisions in the name of the global environment.
	Provide training on best practices and innovations to implement the Rio Conventions and their associated protocols, including data and information management, knowledge creation, advocacy, monitoring and evaluation, and enforcement	The absorptive capacities in Madagascar are significantly stretched with respect to advancing and sustaining development priorities. Training should be as inclusive as possible, reducing if not eliminating the loss of institutional memory that results in institutional memory and uniquely skilled experience.
	Strengthen managerial skills and related capabilities to enhance a work place more conducive to efficient operations	Technical skills and capabilities must be complemented with by managerial and administrative capacities in order that ensure a smooth and sustainable management practices. This is intended to reduce transaction costs of pursuing environmentally sound and sustainable development.
	Enhance technical and research capabilities of planners, in particular of government institutions and academia	These capabilities are intended to build on other trainings and learning-by-doing exercises to develop better analytical skills for planners and decision-makers.
	Provide training on the preparation of project proposals and donor resource mobilization, including for sub-national stakeholders	This includes training on the development of proposals to secure financial resources, both within the country as well as well from international sources.

G. CROSS-CUTTING CAPACITY DEVELOPMENT CONCEPT PAPER

Strengthening national capacities to meet global environmental obligations with the framework of sustainable development priorities

209. As a result of the political crisis between 2009 and 2013, Madagascar's capacities to make advances in environmental conservation, let alone meet obligations under multilateral environmental agreements, stalled and in certain areas even regressed. While many of the development projects continued, many others halted or were cancelled. New presidential and parliamentary elections in late 2013 signaled the end of the political crisis and the return of the international development community to Madagascar. One year later, the donor community is making new investments across many development sectors.

210. The National Capacity Assessment (NCSA) was one of the projects that stalled during the political crisis. With its resurgence and recent completion, the NCSA recommended a number of priority capacity development actions in order to strengthen capacities for environmental sustainability. The recommended capacity development actions under each of the three Rio Conventions would be undertaken by thematic focused projects, while the recommended cross-cutting capacity development are those that have been identified as needing targeted strengthening. A number of these are strategically organized within the construct of a proposed cross-cutting capacity development project[19].

211. The proposed cross-cutting capacity development (CCCD) project targets a set of systemic, institutional, and individual capacities to advance Madagascar on a path towards environmentally friendly and sustainable development. This path will be long and require significant investments and adjustments to traditional approaches to development. This CCCD project will therefore be one intervention among a set of many other efforts being undertaken by other development partners in Madagascar.

212. The findings from the donor community reaffirmed the findings of the NCSA, identifying that perhaps the most significant capacity development need is the strengthening of institutional capacities, with technical capacities to be strengthened in order to carry out institutional mandates. For this reason, the heart of the proposed project is the strengthening of institutional capacities to undertake and sustain development efforts that will deliver benefits to the global environment, indicated by, for example, outcome indicators of increased reforestation of habitats critical to protecting endangered endemic species. However, these outcomes can not be directly tied to this CCCD project. Instead, the output, performance, and process indicators are what will be measured as proxies of global environmental outcomes. For example, increased awareness and understanding of social actors who participate in the extensive public dialogues and training sessions under the project will be one such indicator.[20]

213. At US$ 2 million from the GEF, the proposed project would be the first of its kind to receive the maximum amount allowed under the GEF Cross-Cutting Capacity Development Programme. Based on the GEF's 2004 Strategic Approach to Enhance Capacity Building, early CCCD projects were financed at between US$ 400,000 and US$ 1 million, selecting one of the CCCD programme frameworks as the project's objective. With the increase of the GEF medium-size project limit raised from US$ 1 million to US$ 2 million, under GEF 6, CCCD projects exceeding US$ 1 million should select more than one CCCD programme framework for targeted capacity development. However, all project components must be strategically inter-connected.

[19] The concept of cross-cutting is a social construct of the GEF. Each Rio Convention represents a focal or thematic area for operational programmes and projects, whereas those capacity needs that are *shared* by all three Rio Conventions are considered to be "cross-cutting".

[20] This will be measured by carrying out three broad-based surveys of N>500 at time 0 (baseline), project mid-point (2.5 years), and end of project (year 4.5), taking into account that the proposed project has a duration of five (5) years.

CCCD Project Design

214. The global environmental outcome of CCCD projects is not measured in the same way that GEF focal areas are measured. For example, a climate change adaptation project would be measured by institutionalized best practice standards for timely responses to the impacts of climate change. An example of an indicator would be the enforcement of building codes that prohibit the construction of homes in flood plains. The outcomes of cross-cutting capacity development projects target the underlying capacities that are needed to strengthen the institutional sustainability of focal projects. For example, not only would a CCCD project integrate a set of best practices indicators for developing and enforcing best practice building codes to adapt to the impacts of climate change, they would also enforce the siting of new construction that pose a risk to critically sensitive habitats as well as restoring landscapes at risk for anthropogenic causes of desertification and drought. ***The expected outcome of this project is that Madagascar's institutional capacities for sustaining global environmental outcomes as defined by the three Rio Conventions***.

215. The objective of the proposed CCCD project is to strengthen a targeted set of national capacities to deliver and sustain global environmental outcomes within the framework of sustainable development priorities. At the end of the project, the global environmental outcome will be indicated by a set of five project components:

Project Components

1. A national sustainable development strategy fully integrates Rio Convention obligations

216. This component will begin with an updated policy and legislative analysis of environmental governance in order to structure activities to develop a national sustainable development strategy that includes provisions that reinforces actions to meet Rio Convention obligations. This will be further reinforced by updating selected sectoral policies, and developing a roadmap for mainstreaming Rio Conventions into sectoral development plans. The roadmap would be tested by piloting the mainstreaming into selected regional and sector development plans.

2. The mobilization of financial resources is more sustainable

217. As a Least Developed Country, Madagascar's financial resources are very constrained; as a result, it is difficult to secure financing to undertake environmental conservation activities in light of other pressing socio-economic development needs. This component will explore best practices and innovative approaches to finance activities that produce global environmental outcomes, in particular the sector development plans that integrate global environmental priorities. The monitoring and tracking of financial resources is a key institutional capacity that is needed to ensure the legitimacy, validity, and relevance of mobilized financial resources as this will help reassure future predictable financing. Lessons learned and best practices of the financial sustainability of environmental management information systems will inform the development and testing of an improved similar system for Madagascar.

3. An Environmental Management Information System is established for improved monitoring and assessment of global environmental impacts and trends at the national level

218. Global environmental outcomes need to be measured in order determine the success of activities to achieve environmental friendly sustainable development. Notwithstanding the past and existing work to strengthen environmental databases and related management information systems, there remain weaknesses and gaps. An integrated or networked environmental management information system is offered as a cost-effective approach to creating and making more accessible the data and information needed to create new knowledge that will inform environmentally friendly development actions.

Component 1: National Sustainable Development Strategy

Key Outputs

1

- Comprehensive policy and legislative analysis of environmental governance
- Updated key legislative texts
- Pilot updated and mainstreamed sectoral policy(ies)
- Integrated Rio Convention obligations into National Sustainable Development Strategy
- Roadmap for long-term Rio Convention mainstreaming into sector development plans
- Pilot mainstreaming Rio Convention in regional and sector development plans

Component 2: Institutionalization of sustainable resource mobilization

Key Outputs

2

- Resource mobilization strategy for financial sustainability
- Improved monitoring and tracking of mobilized financial resources
- Develop and test revenue stream of EMIS

Component 3: Monitoring and assessment of environmental impacts and trends

Key Outputs

3

- Baseline assessment of current database and management information systems
- Environmental and sustainable development indicators
- Standardized data collection methodologies
- Strengthened real-time monitoring of environmental trends
- Integrated Environmental Management Information System (EMIS)
- Best practices for conducting environmental impact and strategic environmental assessments
- EMIS demonstration

Component 4: Improved coordination and collaboration for Rio Convention mainstreaming and compliance

Key Outputs

4

- In-depth institutional analysis of environmental governance
- Rio Convention mainstreaming best practices
- Inter-ministerial committee on MEAs
- Inter-directorate coordinating technical committees
- Enhanced monitoring and compliance arrangements and policy responses (EIA and SEA)
- Piloting regional mainstreaming best practices
- Comprehensive updating and streamlining of environmental mandates of government agencies

Component 5: Technical training and awareness-raising

Key Outputs

5

- Project Launch and Results Conference
- Surveys of public sector stakeholders
- Review of training needs to operationalize Rio Conventions
- Rio Convention mainstreaming training programme, including curricula
- Materials and training modules developed
- Trainers are trained on best practices to operationalize Rio Conventions
- Training courses on best practice analytical methodologies and skills for measuring global environmental impacts and trends
- Cooperative agreement among training institutions
- Public awareness campaign and implementation plan
- Local stakeholder constituent public dialogues
- Public awareness and educational materials
- Awareness-raising dialogues and workshops
- Internet visibility of good practices for mainstreaming Rio Conventions obligations

4. Institutional structures and mechanisms strengthened for mainstreaming and enforcing Rio Conventions compliance within sector and regional development planning frameworks

219. An in-depth institutional analysis that updates recent similar analyses will complement the policy and legislative analysis of component 1 to inform the institutional reforms needed. In spite of recent institutional analyses, the current structure of the MEEF and the largely inoperable environmental units in other ministries require reform. While a large-scale institutional reform is beyond the scope of this project, this component will focus on strengthening inter-ministerial and inter-directorate coordination for improved monitoring and compliance with environmental policies and best practices for delivering and sustaining global environmental outcomes.

5. Institutionalize and implement a comprehensive training and public awareness programme on better understanding and applying good practices for delivering and sustaining global environmental outcomes

220. This fifth component comprises a set of training and awareness-raising activities. While technical capacities exist in Madagascar, by and large they are found in insufficient numbers in government institutions. The technical capacities of the staffs in various directorates, services, and units in government ministries will be strengthened in order that they fulfill their roles and responsibilities. Decision-makers and planners were identified by the NCSA process that an insufficient understanding leads to outcomes that are often inconsistent environmental friendly development. While local stakeholders largely understand the need for environmentally friendly and sustainable development, they are not necessarily informed about best practices for alternative approaches to environmental and natural resource management.

Financing

221. The requested GEF financing of this proposed project would be US$ 2 million. Given the requirement of the GEF to leverage at a minimum an equal amount of co-financing to cover the sustainable development components of proposed project activities, early consultations during the latter days of the NCSA identified important opportunities for partnerships with development partners and other donors. On-going consultations are needed to identify additional development partners and structure meaningful and strategic capacity development activities.

222. The final amount of the proposed CCCD project will be determined by a four- to six-month project development process to design and detail a strategic and valid set of capacity development activities, as well as to negotiate the best appropriate implementation arrangements. The project development process will also ensure the project design benefits from the kind of broad-based consultations that so informed the NCSA, both at the national and sub-national levels.

ANNEXES

A. Cross-Cutting Capacity Development in GEF-6

The Cross-Cutting Capacity Development Strategy for GEF-6 (2014-2018)[21] will facilitate 28.the acquisition, exchange and use of knowledge, skills, good practices, behavior necessary to shape and influence national planning and budgeting processes and implementation in support of global environmental benefits by:

(a) ***Promoting country ownership*** and country-led programmes to ensure that the GEF supports embedded environmental objectives at the core of national decision-making and the development planning;

(b) ***Fostering Innovation*** and replicable actions;

(c) ***Catalyzing*** synergies, burden-sharing and the scale-up of capacities to support on-going sustainable environmental management and growth.

(d) ***Promoting knowledge sharing and improved information management*** at all levels to enhance public awareness and promote a behavioral change;

(e) ***Ensuring consultations and involvement of public and other stakeholders*** in decision making from the earliest stages of planning;

(f) ***Promoting partnerships*** with different stakeholders and across different (development) sectors; and

(g) ***Strengthen environmental governance***, including improving political and institutional arrangements and fostering coordination between different sectors of government and the environmental sector.

CCCD Programme	Objectives
CCCD-1: Integrating global environmental needs into management information systems and monitoring	• Carry out (or update) an in-depth analysis of the current management information systems (MIS) related to the Rio Conventions and other MEAs employed by line ministries and their agencies • Negotiate an agreement among all key line ministries and agencies on a realignment of their MIS mandates to fill data gaps and reduce unnecessary duplication • Provide training on the use of targeted advanced data collection methodologies • Support monitoring systems to track progress in convention implementation
CCCD-2: Strengthening consultative and management structures and mechanisms	• Undertake (or update) an in-depth evaluation of the current domestic decision-making processes related to the Rio Conventions and other MEAs • Negotiate an agreement among ministries and non-state stakeholders on the best practicable consultative process for improved decision-making on the Rio Conventions and other MEAs • Provide training to decision-makers on the critical linkages between the objectives of the Rio Conventions and other MEAs and sectoral development priorities

[21] This section is excerpted from the GEF-6 Programming Directions at the Fourth Meeting for the Sixth Replenishment of the GEF Trust Fund, April 16-17, 2014

CCCD Programme	Objectives
CCCD-3: Integrating MEAs provisions within national policy, legislative, and regulatory frameworks	• Undertake (or update) an in-depth analysis of the country's environment and development policy framework • Develop an analytical framework for the in-depth analysis of sectoral policies, plans, programmes and associate legislative and regulatory instruments • Pilot the negotiated realignment of a selected set of sectoral policies with the provisions of the Rio Convention and other MEAs
CCCD-4: Piloting innovative economic and financial tools for Convention implementation	• Undertake a detailed study on the applicability of innovative econometric indicators for the valuation of natural resources • Undertake a detailed study on potentially applicable best practices on environmental fiscal reforms • Test the applicability of targeted innovative tools for the review of a proposed development project.
CCCD-5: Updating NCSAs	• Conduct a consultative process to update the capacity needs to implement the Rio Conventions and the country's commitments under other MEAs

B. Overview of Adaptive Collaborative Management

The following is extracted from Bellamy, Jean-Joseph and Kevin Hill (2010), "National Capacity Self-Assessments: Results and Lessons Learned for Global Environmental Sustainability", Global Support Programme, Bureau for Development Policy, United Nations Development Programme, New York, USA.

Adaptive collaborative management (ACM) is the process of multi-disciplinary group work that stimulates holistic processes and makes deeper connections and relationships. ACM builds on the comparative strengths of adaptive and collaborative management approaches, each of which serves to mitigate the other's deficiencies to some degree as well as to fill in certain gaps. The following diagram serves to make these distinctions more clear.

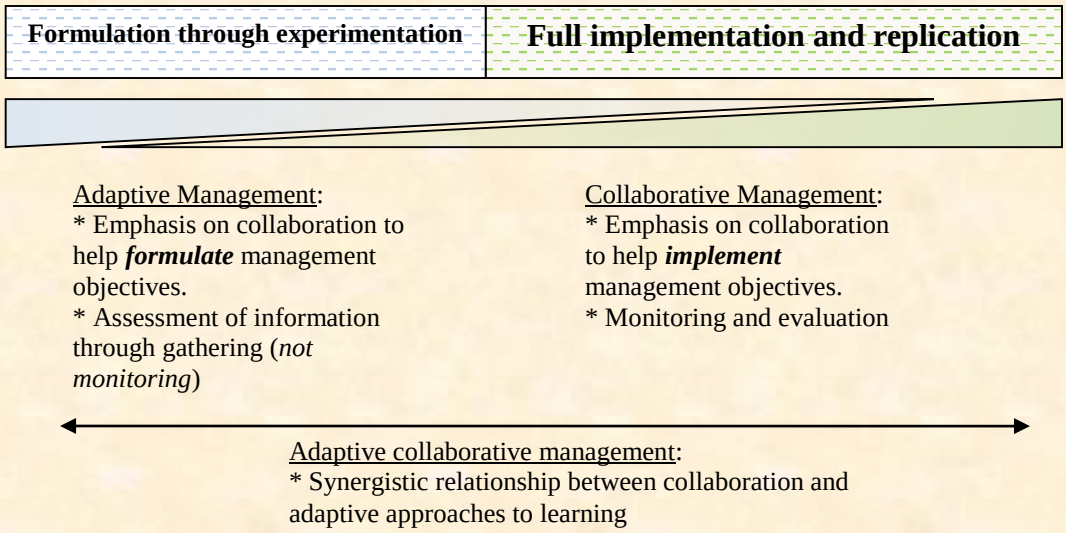


Figure: Adaptive Collaborative Management: A Synergy of Adaptive Management and Collaborative Management

There is some degree of overlap between adaptive management and collaborative management. Adaptive management includes the early implementation of management objectives with a view to their modification, based on early lessons learned. Collaborative management on the other hand focuses on mobilizing key social actors to implement management objectives. With a heightened the emphasis on the participatory processes, collaboration is increasingly seen as invaluable to the decision-making process, as opposed to limited to assigned responsibilities or raising expectations. An essential emphasis of collaboration is the strengthening of local resident participation to redress their traditional marginalization to planning processes. Adaptive collaborative management combines these two separate approaches, emphasizing that the formulation of management objectives would be more sustainable (and legitimate) if stakeholders' (primarily local people) needs and objectives were fully taken into account at a very early stage. Adaptive collaborative management also strengthens the methodology during the stage of full implementation, while fully realizing the dynamic nature of complex systems.

Although adaptive management itself was not initially seen as a blueprint, its approach has been increasingly treated as such, with the result being that the subsequent implementation of management objectives was not as flexible. The reason for this is that adaptive management had led to agreed revisions of management objectives that should no longer be modified in the interest of their fulfillment. Although as a framework adaptive management has been useful, it does not fully help define local management needs. The learning that took place through adaptive management served the restricted nature of fixed management objectives and urgent timeframes (largely due to the accountability systems employed by donor agencies). What adaptive collaborative management suggests is that management objectives can continue to be modified beyond the time limits set by policy-makers. However, the only way to do this is through the approaches espoused by collaborative management.

Adaptive collaborative management is thus important when scaling up pilot conservation projects, temporally and spatially. One of the challenges of conservation activities arises when attempts are made to look more comprehensively beyond conservation areas, and to address the broader socio-economic and policy forces that will influence the sustainability of conservation efforts. For this reason, monitoring and evaluation becomes a critical component of implementation. By strengthening collaboration mechanisms in the formulation phase, adaptive collaborative management strengthens the value of information in the formulation of management objectives. However, since this is likely to translate into heightened conflict, which may catalyze participation, conflict resolution and management skills are considered invaluable to conservation practitioners.

Adaptive collaboration management is an attempt to address the deficiencies inherent in many conservation projects. They argue that biodiversity conservation should not be seen as a symbol of post-modern values and authoritarian protectionism, but as a more complex set of social and political interactions coupled with concerns of poverty, land tenure, and justice. In theory, ACM's greater emphasis on the active participation of local stakeholders early in the formulation of management objectives should increase the legitimacy of policy interventions. Additionally, by bringing the adaptive approach to the process of scaling up and replication, through the institutionalization of monitoring and evaluation structures (as double-loop feedback mechanisms), learning is enhanced and incorporated into decisions concerning modifications to existing governance structures.

Adaptive collaborative management also focuses on the root mechanisms of decision-making in complex systems by correcting the information processing deficiencies inherent in adaptive management, emphasizing capacity building through a learning process (adaptive management). This is achieved by uncovering preferences through action, as opposed to relying on preferences alone (collaborative management). Scholars agree that people do not have well-defined preferences, and that the actions they take are helped by subjectively subordinating certain preferences and expectations. The nature of participation is therefore central to the decision-making process. Since different stakeholders will emphasize certain preferences over others, the role of performance evaluation as a mechanism is to ensure that behaviour, preferences, and expectations are taken into account in the transformation of organizational processes.

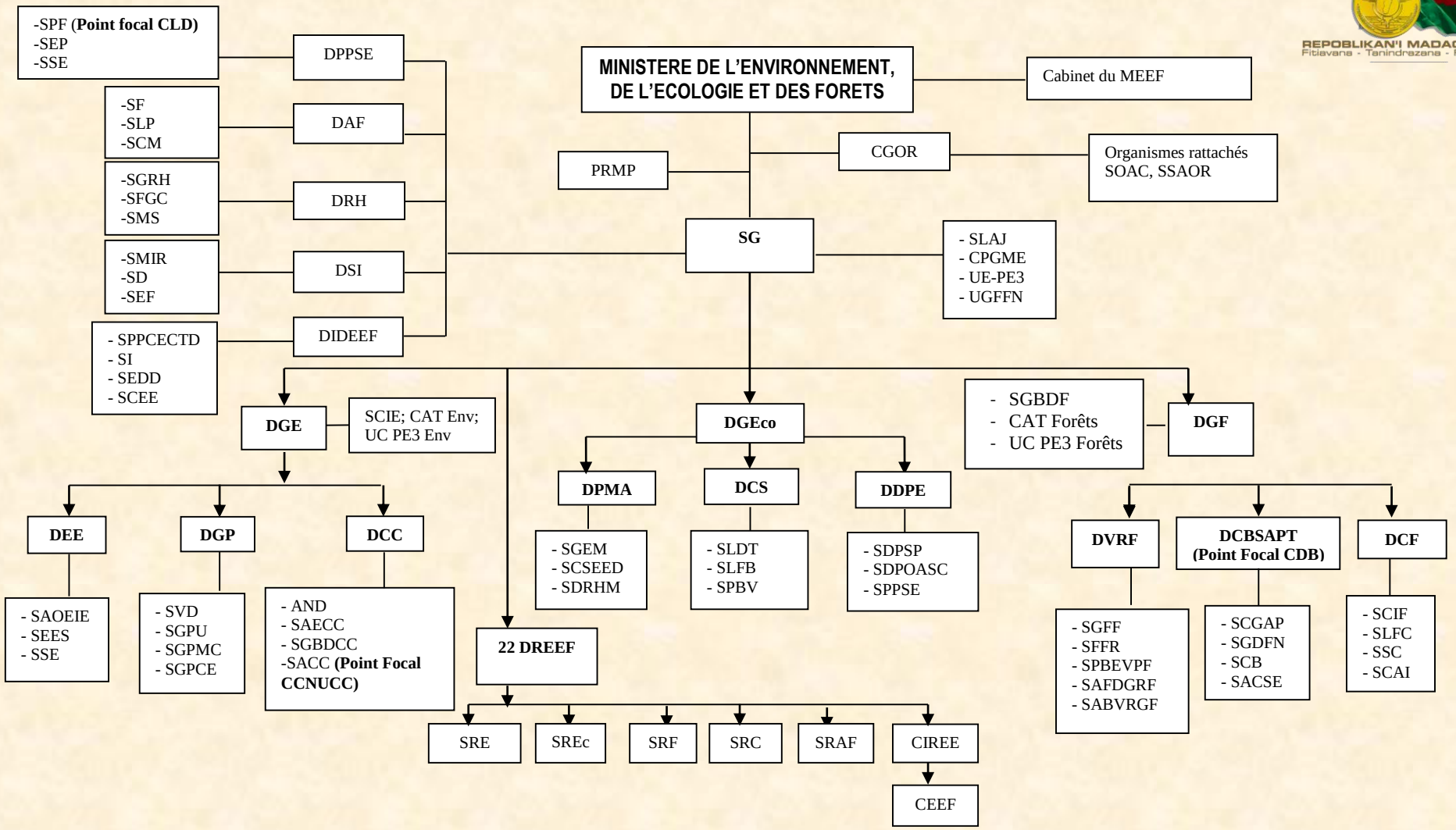
The institutionalization of collaborative and adaptive mechanisms covering the full life-cycle of policy/programme formulation and implementation translates into the institutionalization of mechanisms that bode well for enhancing effectiveness, performance, and sustainability. ACM aims to do more than simply add to or strengthen structures of collaboration/monitoring/evaluation, but rather aims to take a more holistic and inter-connected approach to the dynamic placement and nature of these structures within a management setting. The challenge of ACM is in its ability to effect these (performance evaluation) institutional changes.

One way adaptive collaborative management could be operationalized is through community-based participatory action research (CBPAR) that can be defined as "action research [that] aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework". CBPAR also aims to emphasize the legitimacy of resource distribution and authority in order that the action research strategies are used appropriately, as well as for the stakeholders to accept the project management team as credible. CBPAR also requires "thoughtful planning, specific expertise, careful data collection and analysis, and clear reports and recommendations".

C. Programmes and Projects with International Financing

Donor	Amount (US$)	Recipient, project or areas
African Development Bank	8,100,000	HYDELEC, Clean Development Mechanism
African Development Bank Sustainable Energy Fund for Africa	N/A	Nosy-Be and the Government of Madagascar, renewable energy, including wind, solar, and hydroelectric
AFD and FFEM	33,350,000	FAPBM, WWF, CIRAD, GRET, and HELVETAS/ONE, to address climate change through protected areas, biological diversity, forests, and mitigation
European Union and the African Development Bank	8,380,000	Government of Madagascar, adaptation to climate change in the agriculture sector in the southwest region of Bas Mangoky
European Union	4,000,000	Madagascar National Parks, poverty reduction, conservation of biological diversity, and addressing climate change through the co-management of the natural forests of Marolambo
European Union and WWF-Switzerland	730,000	WWF Madagascar, development of an adaptation strategy
Forest Carbon Partnership Facility	70,000	Development of Madagascar's R-PP, as part of the preparation for the strategy development and implementation of REDD+
French Development Cooperation	36,840,000	Directorate for Meteorology of France and the General Directorate of Meteorology of Madagascar
GEF	4,340,000	MEEF and GSP
GEF	200,000	Preparation of a National Adaptation Programme of Action to Climate Change
GEF	350,000	Initial National Communication
GEF	420,000	Second National Communication
GEF and Least Developed Country Fund	5,000,000	MEEF and MINAGRI-DR, adaptation measures to the agriculture sector in the region of Alaotra Mangoro
Government of Japan	6,600,000	Cool Earth Partnership to alleviate problems related to crises of food, energy, financial systems, and natural disasters and to promote efforts by the Government of Madagascar to reduce greenhouse gas emissions, implement adaptation activities related to the adverse impacts of climate change, and improve access to clean energy.
Government of Switzerland, through the Association Inter-cooperation Madagascar and the Delegation Inter-cooperation	2,000,000	Environmental preservation, the implementation of the REDD-FORECA Project with GTZ in the regions of Itasy, Analamanga, Amoron'i Mania, Analanjirofo Ihorombe, Atsimo Andrefana, Diana, and Boeny
MacArthur Foundation	65,000	WCS, climate change
Norwegian Agency for Development Cooperation	315,000	WWF Madagascar, adaptation
Tany Meva Foundation	1,000,000	Community projects that contribute to achieving the objectives of the three Rio Conventions
Telma Foundation	17,500	WWF, UNICEF, the CETAMADA Association, and Society ToughStuff, themes of clean energy and sustainability, climate change (communication and information), and marine mammals
US Agency for International Development	18,000,000	Management of natural disasters
World Bank	82,000,000	Protected areas, biological diversity, climate change and governance
World Bank	4,500,000	Unit (Ministry?) of Emergency Prevention and Management, management of climate and disaster risks
World Bank	1,500,000	to address climate change through the development of procedures for approving CDM projects, sustainability criteria , and a reforestation and conservation under the CDM
World Bank	2,000,000	CPGU/Prime Minister, Mainstreaming of Disaster Reduction for the Reduction of Poverty

D. Organogram of the Ministry of Environment, Ecology, and Forests



LEGENDE

AND	:	Autorité Nationale Désignée
CAT Env	:	Cellule d'Appui Technique Environnemental;
CAT Forêts	:	Cellule d'Appui Technique Forestier
CEEF	:	Cantonnements de l'Environnement, de l'Ecologie et des Forêts
CGCOR	:	Coordination Générale des Organismes Rattachées
CIREEF	:	Circonscriptions de l'Environnement, de l'Ecologie et des Forêts
CPGME	:	Coordination du Programme Germano Malgache pour l'Environnement
DAF	:	Direction Administrative et Financière
DCBSAPT	:	Direction de la Conservation de la Biodiversité et du Système des Aires Protégées Terrestres
DCC	:	Direction du Changement Climatique
DCF	:	Direction du Contrôle Forestier
DCS	:	Direction de la Conservation des Sols
DDPE	:	Direction de Développement du Partenariat Ecologique
DEE	:	Direction des Evaluations Environnementales
DGE	:	Direction Générale de l'Environnement
DGEco	:	Direction Générale de l'Ecologie
DGF	:	Direction Générale des Forêts
DGP	:	Direction de la Gestion des Pollutions
DIDEEF	:	Direction de l'Intégration de la Dimension Environnementale Ecologique et Forestière
DPMA	:	Direction de la Protection du Milieu Aquatique
DPPSE	:	Direction de la Planification, de la Programmation et du Suivi Evaluation
DREEF	:	Directions Régionales de l'Environnement, de l'Ecologie et des Forêts
DRH	:	Direction des Ressources Humaines
DSI	:	Direction du Système d'Information
DVRF	:	Direction de la Valorisation des Ressources Forestières
PRMP	:	Personne Responsable du Marché Public
SABVRGF	:	Service de la Reforestation
SACC	:	Service de l'Atténuation du Changement Climatique
SACSE	:	Service des Appuis aux Communautés et de Suivi Ecologique Terrestre
SAECC	:	Service de l'Adaptation aux Effets Changement Climatique
SAFDGRF	:	Service de l'Aménagement Forestier et de Délégation de Gestion des Ressources Forestières
SAOEIE	:	Service d'Appui, d'Orientation et des Etudes d'Impact Environnemental
SCAI	:	Service de Contrôle Forestier de l'Aéroport d'Ivato
SCB	:	Service de la Conservation de la Biodiversité Terrestre
SCEE	:	Service de la Communication Environnementale et Ecologique
SCGAP	:	Service de Création et de Gestion des Aires Protégées Terrestres
SCIE	:	Service des Conventions Internationales relatives à l'Environnement
SCIF	:	Service du Contrôle et Investigation Forestiers
SCM	:	Service Comptabilité Matière
SCSEED	:	Service de la Conservation et de Suivi de l'Ecosystème d'Eau Douce
SD	:	Service du Développement
SDF	:	Service de la Pérennisation Financière
SDPOASC	:	Service de Développement du Partenariat avec les ONGs, les Associations et la Société Civile
SDPSP	:	Service de Développement du Partenariat avec le Secteur Privé
SDRHM	:	Service de Développement des Recherches sur l'Habitat Marin
SEDD	:	Service de l'Education pour le Développement Durable
SEES	:	Service des Evaluations Environnementales Stratégiques
SEF	:	Service de l'Exploitation et de la Formation
SEP	:	Service des Etudes et de la Programmation
SF	:	Service Financier
SFFR	:	Service de la Fiscalité Forestière et du Recouvrement
SFGC	:	Service de la Formation et de Gestion des Carrières
SG	:	Secrétaire Général
SGBDCC	:	Service de Gestion de la Base des Données sur le Changement Climatique
SGBDF	:	Service de Gestion des Bases de Données Forestières
SGDFN	:	Service de la Gestion des Domaines Forestiers Nationaux
SGEM	:	Service de la Gestion des Ecosystèmes Marins
SGFF	:	Service de la Gestion de la Flore et de la Faune

SGPCE	:	Service de Gestion de Plaintes et de Contrôle Environnemental
SGPMC	:	Service de Gestion des Pollutions Marine et Côtière
SGPU	:	Service de Gestion des Pollutions Urbaines
SGRH	:	Service de la Gestion des Ressources Humaines
SI	:	Service de l'Information
SLAJ	:	Service Législation et Affaires Juridiques
SLDT	:	Service de Lutte contre la Dégradation des Terres
SLFB	:	Service de Lutte contre les Feux de Brousse
SLFC	:	Service de la Législation Forestière et du Contentieux
SLP	:	Service de la Logistique et du Patrimoine
SMIR	:	Service de la Maintenance Informatique et Réseaux
SMS	:	Service Médico - Social
SOAC	:	Service Orientation, Animation et Coordination
SPBEVPF	:	Service de la Promotion de Bio-Energie et la Valorisation des Produits Forestiers
SPBV	:	Service de la Protection des Bassins Versants
SPPCECTD	:	Service de Promotion des Partenariats avec les Cellules Environnementales et les Collectivités Territoriales Décentralisées
SPPSE	:	Service de la Promotion des Paiements des Services Ecologiques
SRAF	:	Service Régional Administratif et Financier
SRC	:	Service Régional de Contrôle
SRE	:	Service Régional de l'Environnement
SREco	:	Service Régional de l'Ecologie
SRF	:	Service Régional des Forêts
SSAOR	:	Service Suivi des Activités et des Organismes Rattachés
SSC	:	Service de Suivi et Coordination
SSE	:	Service du Suivi – Evaluation
SSE	:	Service de Suivi Environnemental
SVD	:	Service de la Valorisation des Déchets
TEEF	:	Triages de l'Environnement, de l'Ecologie et des Forêts
UC PE3 Env	:	Unité de Coordination du PE 3 Environnement
UC PE3 Forêts	:	Unité de Coordination PE 3 Forêts
UE PE3		Unité de Coordination du PE 3
UGFFN	:	Unité de Gestion du Fonds Forestier National

E. NCSA committees and working groups

CBD Technical Working Group

Individual	Organization
Ms. Laurette Rasoavahiny	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction de la conservation de la biodiversité et du systèmes des aires protégées et point focal pour la Convention sur la Biodiversité
Mr. Sahoby Randriamahaleo	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Point focal POWPA
Ms Blandine Ramanantenasoa	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Point focal Biosécurité
Ms. Fanja Olivà Randraiakaloalala	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction de l'Evaluation Environnementale
Ms Michelle Andriamahazo	Ministère de l'Agriculture et du Développement Rural / Service Environnement
Mr. Tsiory Andrianatoandro	Ministère de l'Agriculture et du Développement Rural / Service Environnement
Ms. Vola Rakotonjanahary	Ministère de la Ressource Halieutique et de la Pêche / Service de l'Environnement
Ms Josiah Ketty Fabiola Ravily	Ministère auprès de la Présidence chargé des Ressources Stratégiques
Mr. Hanjao Rabearison	Ministère auprès de la Présidence chargé des Ressources Stratégiques
Ms Fanja Olga Randriamanantena	Madagascar National Parks
Ms Voahangy Raharimalala	Office National pour l'Environnement, Assistant to the CHM Focal Point
Ms Lolona Ramamonjisoa	Silo National de Graines Forestières
Mr Olivarimbola Andrianoelina	Silo National de Graines Forestières
Ms. Hajanirina Razafindrainibe	Service d'Appui à la Gestion de l'Environnement
Ms Hary Vololoniaina Jeannoda	Université d'Antananarivo / Point focal GSPM
Ms Bakolimalala Rakouth	Université d'Antananarivo / Point focal GTI
Mr Felix Rakotondraparany	Université d'Antananarivo/ Facultés des Sciences
Mr. Patrick Ranirison	Université d'Antananarivo / Faculté des Science / Département Biologie Végétale
Ms Hantavololona Rakotoniaina	Fondation Tany Meva
Ms Michèle Andrianarisata	Conservation Internationale
Mr David Rasolofoson	GERP
Mr Rasambaritafika Iandriniaina	Homéopharma Company
Mr. Daniel Rakotondravony	Université d'Antananarivo / Faculté des Science / Département Biologie Animale

CLD Technical Working Group

Individual	Organization
Ms. Herivololona Ralalarimanana	Ministère de l'Environnement, de l'Ecologie et des Forêts/ PFN CLD
Ms. Baholy Andriamiharantsoa	Ministère de l'Agriculture et du Développement Rural / Service Environnement
Ms. Mino Rakotonandrasana	Ministère de l'Agriculture et du Développement Rural
Ms. Jocelyne Yvette Rafaraniaina	Ministère de l'Agriculture et du Développement Rural / BVPI
Mr. Vololona Rakotonomenjanahary	Ministère auprès de la Présidence chargé des Ressources Stratégiques
Mr. Veromanitra Raozivelomanana	Ministère de l'Elevage/ Service de l'environnement
Mr. Liva Rémi Rakotonirainy	Ministère de l'Environnement, de l'Ecologie et des Forêts/Directions du Système d'Informations
Mr. Tahina Rakotondralambo	ANAE
Ms. Andriamazaoro Raoelimihamina	ANAE
Ms. Minoniaina Luce Razafindramanga	SIMIRALENTA
Ms.Manitra Randrianarijaona	Fondation Tany Meva
Ms. Miara Rajaobelina	Fondation Tany Meva
Ms. Simon Rafanomezantsoa	WWF
Ms. Verosoa Raharivelo	PNUD
Mr. Willy Rakotomalala	Tranoben'ny Tantsaha (Maison des Paysans)
Mr. Fetra Nirina Pascal Rakotomandrindra	Bureau National de Gestion des Risques et Catastrophes
Ms. Claire Raharihasina	PNUD / Projet Gestion des Risques et Catastrophes
Ms. Vololona Rasoarimanana	GEF SGP Madagascar
Mr. Harifidy Rakoto Ratsimba	Ecole Supérieure des Sciences Agronomiques - Département Forêts
Ms. Mireille Razaka	Groupement Semis Direct Madagascar
Ms. Marie Clémentine Voninavoko	Programme de Lutte Anti-Erosive

FCCC Technical Working Group

Individual	Organization
Mr. Michel Omer Laivao	Ministère de l'Environnement, de l'Ecologie et des Forêts/ PFN CCNUCC
Mr. Frédéric Joel Ramarolahivonjitiana	Ministère de l'Environnement, de l'Ecologie et des Forêts/Directions du Système d'Informations
Ms. Yvannie Rabenitany	Ministère de l'Environnement, de l'Ecologie et des Forêts/ DPPSE / Service Suivi et Evaluation
Ms. Chantal Zanakanivola Razanamaria	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique
Ms. Lantonirina Ratovonjanahary	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique
Mr. Jaona Mandimby Andrianarisoa	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique
Ms. Nivo Razanamiadana	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction des Ressources Humaines / Service Formation
Mr. Fameno Tahiana Ranaivoson	Ministère de l'Eau
Ms. Nirina Rajaonah	Ministère de l'Agriculture et du Développement rural
Ms. Lucia Dolly Andriamanantena	Ministère de l'Eau/ Sécetariat Général
Ms. Holinantenaina Raheliarisoa Rakotobe	Ministère de l'Eau/ Cellule Environnementale
Ms. Irène Viviane Ramamonjisoa	Ministère de l'Eau / Direction de la Gestion des Ressources en Eau
Mr. Sergio Razakamahefa	Ministère de la santé Publique / Service Santé et Environnement
Ms. Marie Louise Rakotondrafara	Direction Générale de la Météorologie
Mr. Christian Rabeson	Ministère des Affaires Etrangères
Ms. Simone Rakotoarivo	MESUPRES/ Direction Générale de la Recherche et Partenariat
Ms. Minoniaina Luce Razafindramanga	SIMIRALENTA
Mr. Alain Rakotovao	ICPM
Ms. Harisoa Hasina Rakotondrazafy	WWF
Mr. Mampionona Randrianirina	WWF
Ms. Lilia Rabeharisoa	Laboratoire des Radios Isotopes
Ms. Pelanoro Nivoarilala Randriamaro	Comité National de la Gestion Intégré des Zones Côtières
Mr. Joachin Rasolomanjaka	Groupement Semis Direct Madagascar
Ms. Hantavololona Rakotoniaina	Fondation Tany Meva
Ms. Michele Andrianarisata	Conservation International

Other Persons Consulted

Individual	Organization
Mr. Germain Randriasandratana	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique
Ms. Jane Razanamiarisoa	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique
Ms. Fabiola Razanatsimba	Ministère auprès de la Présidence chargé des Ressources Stratégiques
Mr. Paul Olivier Ralison	Ministère de l'Environnement, de l'Ecologie et des Forêts/ DIDE
Ms. Valérie Ramahavalisoa	Ministère de l'Environnement, de l'Ecologie et des Forêts/ DIDE
Mr. Fenohery Randrianantenaina	Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction de la Programmation, de la Planification et du Suivi-Evaluation
Mr. Ibrahim Abdallah	Ministère de l'Energie
Mr. Bruno Alain Raoelina	Ministère de l'Elevage/ Direction de la Planification et du Suivi-Evaluation
Mr. Michèle Rasolompiakarana	Ministère de l'Agriculture/ Directeur de la Production Agricole
Ms. Samueline Ranaivoson	Ministère de la Pêche et des Ressources Halieutiques/ Service de l'environnement
Dr Rakotoarison Norosohasina	Ministère de la Santé Publique
Mr. Edmond Randriamanantsoa	Bureau National de Gestion des Risques et Catastrophes
Ms. Mbolatiana Andriamiarinosy	Comité National de la Gestion Intégré des Zones Côtières
Mr. Lanto Ramaroson	Bassins Versants et Périmètres Irrigués
Mr. Jean Roger Rakotoarijaona	Office National pour l'Environnement
Ms. Julie Blazy	PNUD
Ms. Ravaka Ranaivoson	Fondation Tany Meva
Ms. Monique Andriamananoro	Fondation Tany Meva
Ms. Naritiana Rakotoniaina	SAGE - Point focal APA/ Protocole de Nagoya
Mr. Thierry Rabarijaona	Groupe de Recherche et d'Echanges Technologiques
Mr. Herilala Andriamaniraka	Ecole Supérieure des Sciences Agronomiques - Département Agriculture
Mr. Fanomezantsoa Andrianaivoarivony	PNUD
Mr. Edmond Téodile	Ministre de l'Industrie, du Développement du Secteur Privé et des Petites et Moyennes Entreprises
Ms. Regula Ochsner	Président Fondatrice ADES Toliara
Ms. Anatolie Razafindrafeno	Coordinateur national adjointe Association pour le Développement de l'Énergie Solaire Toliara
Mr. Jose Patrick Randrianirina	Directeur Centre ADES Toliara
Mr. Jean Yves Manera	Responsable pédagogique, Filière Licence IHSM
Ms. Fanjaharisoalalao	Chef de Service Régional de Coopération Agricole et Appui à l'Organisation des Filières (SRCAAOF) DRDR Atsimo Atsinanana
Mr. Jean Désiré Marcellin	Secrétaire Général de la chambre de commerce de Toliara. responsable Relation publique et juridique Toliary Sands et président des opérateurs miniers de la province
Ms. Lalao Doléa Emile Fanjaharisoa	Direction régional du Développement Rural - Atsimo Andrefana

Mr. Lydor Solondraza	Directeur de l'Aménagement et de Gestion du Territoire (DAGT) Région Atsimo Andrefana
Mr. Justin Randrianarison	Directeur Interrégionale des mines Atsimo Andrefana (DIRMINE)
Mr. Ludovic Rafanomezantsoa	Technicien de Madagascar National Parks
Mr. Victor Mamiharivelo	Fondation Tany Meva Antenne Toliara
Mr. Rija Jean Thierry Ramandraiarivony	Coordonnateur Régional, SAGE
Mr. Lanto Herilala Andriambelo	Coordonnateur Antenne Sud-Ouest GIZ
Ms. Jeannine Ranarimanana	Responsable Gouvernance Communautaire GIZ Toliara
Mr. Njaka	Chef de projet Amoron'i Onilahy WWF Toliara
Ms. Soarinosy Gladys Ranalisolofo	Chef de projet Plateau Mahafaly WWF Toliara
Ms. Lilia	Responsable Programme marin WWF Toliara
Ms. Domoina	Responsable Gestion des terres WWF Toliara
Mr. Jean de Dieu Rafanomezantsoa	Président Société civile FAMARI
Ms. Francine Liera Tovonony	Responsable législation Société civile FAMARI
Mr. Paulin Ratolimanana	Responsable suivi évaluation Société civile FAMARI
Mr. Vernet Rakotomanantsoa	Vice-Président Société civile FAMARI
Mr. Ducharboya Ratsimandriaka	Responsable IEC Société civile FAMARI
Mr. Andrianarivao Nirhy Rakotobe	Directeur Régionale du Développement Rural, Alaotra Mangoro
Ms. Fara Soloarivelo Rakotoninaly	Directeur Régionale de l'Elevage, Alaotra Mangoro
Mr. Gérard Hervé Randrianjanaharizaka	Directeur Régionale de l'Eau, Alaotra Mangoro
Ms. Daudet Andriafidison	Coordinateur des Projets Communautaires - Association Madagasikara Voakajy
Mr. Rodolphe Randriamalala	Maire de la Commune Ambohijanahary
Mr. Rabenindrina Razafindravelo	Président Fédération des VOI Andilana Nord
Mr. Désire Rakotonindrina	Président VOI Tsarahonenana, Membre de la Fédération Fitokisana
Mr. Olivier Gilbert Rafenomanana	Président VOI Fenomanana II et Président Union Sahanala
Ms. Hiroko Miura	Conseillère principale, conservation et gestion des ressources naturelles -expert de la JICA
Mr. Hasina Andriamanampisoa	Responsable Relation publique et logistique
Mr. Bruno Luhano Andriamiarivola	Assistant Régional du Projet Alaotra
Mr. Richard --	Président, Fédération Zetravola
Mr. Jules Randrianasinina (CFL)	Membre du VOI Vorontsara
Mr. Rabenjakasoa (CFL)	Membre du VOI Vorontsara
Mr. Ernest -- (CFL)	Membre du VOI Vorontsara
Mr. Fidelis --	Membre du VOI Vorontsara
Mr. --	Vice-Président du Conseil Communale, Commune Ambohijanahary
Mr. --	Secrétaire administratif, Commune Ambohijanahary
Mr. --	Président du FMR, Commune Ambohijanahary
Mr. --	Agent du Développement Commune Ambohijanahary

F. Key Organizations Involved the NCSA Process

Organization name	Type
Direction de la Programmation, de la Planification et du Suivi et Evaluation of the Ministry of Environment, Ecology and Forests	Government
Direction de la Conservation de la Biodiversité et du Système des Aires Protégées of the Ministry of Environment, Ecology and Forests	Government
Direction du Changement Climatique of the Ministry of Environment, Ecology and Forests	Government
Service de l'Environnement of the Ministry of Agriculture	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction de la conservation de la biodiversité et du systèmes des aires protégées et point focal pour la Convention sur la Biodiversité	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Point focal POWPA	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Point focal Biosécurité	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction de l'Evaluation Environnementale	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ PFN CCNUCC	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/Direction du Système d'Informations	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ DPPSE / Service Suivi et Evaluation	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction des Ressources Humaines / Service Formation	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/Direction du Système d'Informations	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ Direction du Changement climatique	Government
Ministère auprès de la Présidence chargé des Ressources Stratégiques	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ DIDE	Government
Ministère de l'Energie	Government
Ministère de l'Elevage/ Direction de la Planification et du Suivi-Evaluation	Government
Ministère de l'Agriculture/ Directeur de la Production Agricole	Government
Ministère de la Pêche et des Ressources Halieutiques/ Service de l'environnement	Government
Ministère de la Santé Publique	Government
Ministère de l'Eau	Government
Ministère de l'Agriculture et du Développement rural	Government
Ministère de l'Eau/ Secrétariat Général	Government
Ministère de l'Eau/ Cellule Environnementale	Government
Ministère de l'Eau / Direction de la Gestion des Ressources en Eau	Government
Ministère de la santé Publique / Service Santé et Environnement	Government
Direction Générale de la Météorologie - Ministère des Travaux Publiques et de la Météorologie	Government
Ministère des Affaires Etrangères	Government

MESUPRES/ Direction Générale de la Recherche et Partenariat	Government
Ministère de l'Agriculture et du Développement Rural / Service Environnement	Government
Ministère de la Ressource Halieutique et de la Pêche / Service de l'Environnement	Government
Ministère de l'Environnement, de l'Ecologie et des Forêts/ PFN CLD	Government
Ministère de l'Agriculture et du Développement Rural / Service Environnement	Government
Ministère de l'Agriculture et du Développement Rural / BVPI	Government
Ministère auprès de la Présidence chargé des Ressources Stratégiques	Government
Ministère de l'Elevage/ Service de l'environnement	Government
Regional Directorate of the Environment, Ecology and Forests	Government
National Center for Applied Rural Research	Government
National Office of the Environment	Government
Environmental cells within each ministry	Government
Regional Directorate of Rural Development	Government
Regional Directorate of Livestock	Government
Regional Directorate of Fisheries and Marine Resources	Government
Inter-regional Directorate of Mining	Government
General Commission for the Integrated Development of the South	Government
University of Antananarivo - Faculty of Sciences - Department of Animal Biology	Academia
Université d'Antananarivo - Ecole Supérieure des Sciences Agronomique (ESSA)	Academia
Fisheries and Marine Science Institute, University of Toliara	Academia
National Silo of Forester Grains (Silo National des Graines Forestières)	Organe statutaire
Regional Service for Surveying and Spatial Planning	Organe statutaire
Service Management Support Environment	Organe statutaire
Madagascar National Parks	Organe statutaire
Group of Plant Specialists of Madagascar	Civil Society
Foundation for Protected Areas of Madagascar	Civil Society
Foundation Tany Meva	Civil Society
Biodiversity Network of Madagascar	Civil Society
Network of Educators and Professionals in Conservation	Civil Society
Association of Environmental Information Services	Civil Society
Global Taxonomy Initiative	Civil Society
Vahatra	Civil Society
Asity	Civil Society
Madagasikara Voakajy	Civil Society
Primate Research Group	Civil Society
Missouri Botanical Garden	Civil Society
Federation of VOI	Civil Society
Conservation International	ONG
Wildlife Conservation Society	ONG
World Wide Fund for nature	ONG
Durrell Wildlife Conservation Trust	ONG
Federation of VOI	Civil Society

Group of Tour Operators (Company)	Secteur privé
Homeopharma Company (Pharmaceutical and Cosmetic Industry)	Secteur privé
Toliara Sands Company	Secteur privé
Université d'Antananarivo / Point focal GSPM	Academia
Université d'Antananarivo / Point focal GTI	Academia
Université d'Antananarivo/ Facultés des Sciences	Academia
Université d'Antananarivo / Faculté des Science / Département Biologie Végétale	Academia
Université d'Antananarivo / Faculté des Science / Département Biologie Animale	Academia
GERP	Academia
Association Nationale d'Actions Environnementale	Academia
Association SIMIRALENTA	Civil Society
PNUD	Bailleurs
Tranoben'ny Tantsaha (Maison des Paysans)	Civil Society
Bureau National de Gestion des Risques et Catastrophes	Government
PNUD / Projet Gestion des Risques et Catastrophes	Projet
GEF SGP Madagascar	Programme
Ecole Supérieure des Sciences Agronomiques - Département Forêts	Academia
Groupement Semis Direct Madagascar	Civil Society
Programme de Lutte Anti-Erosive	Programme
ICPM	Civil Society
Laboratoire des Radios Isotopes	Organisme de recherche
Comité National de la Gestion Intégré des Zones Côtières	Government
Bassins Versants et Périmètres Irrigués	Projet
Point focal APA/ Protocole de Nagoya	Government
Groupe de Recherche et d'Echanges Technologiques	Civil Society

G. Capacity Development Scorecard

Project/Programme Name:_____

Project/Programme Cycle Phase:_____ Date:_____

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
	CR 1: Capacities for engagement					
Indicator 1 – Degree of legitimacy/mandate of lead environmental organizations	Institutional responsibilities for environmental management are not clearly defined	0				
	Institutional responsibilities for environmental management are identified	1				
	Authority and legitimacy of all lead organizations responsible for environmental management are partially recognized by stakeholders	2				
	Authority and legitimacy of all lead organizations responsible for environmental management recognized by stakeholders	3				
Indicator 2 – Existence of operational co-management mechanisms	No co-management mechanisms are in place	0				
	Some co-management mechanisms are in place and operational	1				
	Some co-management mechanisms are formally established through agreements, MOUs, etc.	2				
	Comprehensive co-management mechanisms are formally established and are operational/functional	3				
Indicator 3 – Existence of cooperation with stakeholder groups	Identification of stakeholders and their participation/involvement in decision-making is poor	0				
	Stakeholders are identified but their participation in decision-making is limited	1				
	Stakeholders are identified and regular consultations mechanisms are established	2				
	Stakeholders are identified and they actively contribute to established participative decision-making processes	3				
…. Add your own indicator(s)						

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
CR 2: Capacities to generate, access and use information and knowledge						
Indicator 4 – Degree of environmental awareness of stakeholders	Stakeholders are not aware about global environmental issues and their related possible solutions (MEAs)	0				
	Stakeholders are aware about global environmental issues but not about the possible solutions (MEAs)	1				
	Stakeholders are aware about global environmental issues and the possible solutions but do not know how to participate	2				
	Stakeholders are aware about global environmental issues and are actively participating in the implementation of related solutions	3				
Indicator 5 – Access and sharing of environmental information by stakeholders	The environmental information needs are not identified and the information management infrastructure is inadequate	0				
	The environmental information needs are identified but the information management infrastructure is inadequate	1				
	The environmental information is partially available and shared among stakeholders but is not covering all focal areas and/or the information management infrastructure to manage and give information access to the public is limited	2				
	Comprehensive environmental information is available and shared through an adequate information management infrastructure	3				
Indicator 6 – Existence of environmental education programmes	No environmental education programmes are in place	0				
	Environmental education programmes are partially developed and partially delivered	1				
	Environmental education programmes are fully developed but partially delivered	2				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
	Comprehensive environmental education programmes exist and are being delivered	3				
Indicator 7 – Extent of the linkage between environmental research/science and policy development	No linkage exist between environmental policy development and science/research strategies and programmes	0				
	Research needs for environmental policy development are identified but are not translated into relevant research strategies and programmes	1				
	Relevant research strategies and programmes for environmental policy development exist but the research information is not responding fully to the policy research needs	2				
	Relevant research results are available for environmental policy development	3				
Indicator 8 – Extend of inclusion/use of traditional knowledge in environmental decision-making	Traditional knowledge is ignored and not taken into account into relevant participative decision-making processes	0				
	Traditional knowledge is identified and recognized as important but is not collected and used in relevant participative decision-making processes	1				
	Traditional knowledge is collected but is not used systematically into relevant participative decision-making processes	2				
	Traditional knowledge is collected, used and shared for effective participative decision-making processes	3				
…. Add your own indicator(s)						
CR 3: Capacities for strategy, policy and legislation development						
Indicator 9 – Extend of the environmental planning and strategy development process	The environmental planning and strategy development process is not coordinated and does not produce adequate environmental plans and strategies	0				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
	The environmental planning and strategy development process does produce adequate environmental plans and strategies but there are not implemented/used	1				
	Adequate environmental plans and strategies are produced but there are only partially implemented because of funding constraints and/or other problems	2				
	The environmental planning and strategy development process is well coordinated by the lead environmental organizations and produces the required environmental plans and strategies; which are being implemented	3				
Indicator 10 – Existence of an adequate environmental policy and regulatory frameworks	The environmental policy and regulatory frameworks are insufficient; they do not provide an enabling environment	0				
	Some relevant environmental policies and laws exist but few are implemented and enforced	1				
	Adequate environmental policy and legislation frameworks exist but there are problems in implementing and enforcing them	2				
	Adequate policy and legislation frameworks are implemented and provide an adequate enabling environment; a compliance and enforcement mechanism is established and functions	3				
Indicator 11 – Adequacy of the environmental information available for decision-making	The availability of environmental information for decision-making is lacking	0				
	Some environmental information exists but it is not sufficient to support environmental decision-making processes	1				
	Relevant environmental information is made available to environmental decision-makers but the process to update this information is not functioning properly	2				
	Political and administrative decision-makers obtain and use updated environmental information to make environmental decisions	3				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
…. Add your own indicator(s)						
CR 4: Capacities for management and implementation						
Indicator 12 – Existence and mobilization of resources	The environmental organizations don't have adequate resources for their programmes and projects and the requirements have not been assessed	0				
	The resource requirements are known but are not being addressed	1				
	The funding sources for these resource requirements are partially identified and the resource requirements are partially addressed	2				
	Adequate resources are mobilized and available for the functioning of the lead environmental organizations	3				
Indicator 13 – Availability of required technical skills and technology transfer	The necessary required skills and technology are not available and the needs are not identified	0				
	The required skills and technologies needs are identified as well as their sources	1				
	The required skills and technologies are obtained but their access depend on foreign sources	2				
	The required skills and technologies are available and there is a national-based mechanism for updating the required skills and for upgrading the technologies	3				
…. Add your own indicator(s)						
CR 5: Capacities to monitor and evaluate						
Indicator 14 –	Irregular project monitoring is being done	0				

Capacity Result / Indicator	Staged Indicators	Rating	Score	Comments	Next Steps	Contribution to which Outcome
Adequacy of the project/programme monitoring process	without an adequate monitoring framework detailing what and how to monitor the particular project or programme					
	An adequate resourced monitoring framework is in place but project monitoring is irregularly conducted	1				
	Regular participative monitoring of results in being conducted but this information is only partially used by the project/programme implementation team	2				
	Monitoring information is produced timely and accurately and is used by the implementation team to learn and possibly to change the course of action	3				
Indicator 15 – Adequacy of the project/programme monitoring and evaluation process	None or ineffective evaluations are being conducted without an adequate evaluation plan; including the necessary resources	0				
	An adequate evaluation plan is in place but evaluation activities are irregularly conducted	1				
	Evaluations are being conducted as per an adequate evaluation plan but the evaluation results are only partially used by the project/programme implementation team	2				
	Effective evaluations are conducted timely and accurately and are used by the implementation team and the Agencies and GEF Staff to correct the course of action if needed and to learn for further planning activities	3				
…. Add your own indicator(s)						

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