

Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: 61964-MG

PROJECT PAPER

ON A PROPOSED ADDITIONAL IDA CREDIT
IN THE AMOUNT OF SDR26 MILLION
(US\$42 MILLION EQUIVALENT)

AND

A PROPOSED ADDITIONAL GRANT FROM THE GLOBAL ENVIRONMENT
FACILITY TRUST FUND
IN THE AMOUNT OF US\$10.0 MILLION

TO THE

REPUBLIC OF MADAGASCAR

FOR THE

THIRD ENVIRONMENTAL PROGRAM SUPPORT PROJECT (EP3)

May 19, 2011

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2011)

Currency Unit = US dollars
SDR 0.61692 = US\$1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

| | |
|---------|--|
| AF | Additional financing |
| ANGAP | <i>Association Nationale pour la Gestion des Aires Protégées</i> (now Madagascar National Parks) |
| CAS | Country Assistance Strategy |
| CAZ | Corridor Ankeniheny Zahamena |
| CELCO | EP3 Project Coordination Unit |
| CI | Conservation International |
| CLP | <i>Comités locaux de parcs</i> ; Community Park Committee |
| CLS | <i>Comités locaux de surveillance</i> ; Community Surveillance Committee |
| COBA | Community Forestry Management Group |
| COFAV | Forestry Corridor Fandriana Vondrozo |
| COSAP | Park Support Committee |
| DEAP | Protected area visitor entry fees |
| DGE | Directorate General of Environment |
| DGF | Directorate General of Forests |
| DSAP | Directorate General of the Protected Area Network |
| EMP | Environmental Management Plan |
| EP3 | Madagascar Third Environmental Program Support Project |
| ERR | Economic rate of return |
| ESMF | Environmental and Social Management Framework |
| FAPBM | Madagascar Foundation for Protected Areas and Biodiversity; the Foundation |
| FCPF | Forest Carbon Partnership Facility |
| FM | Financial management |
| GEF | Global Environment Facility |
| GEO | Global Environment Objective |
| IDA | International Development Association |
| IFC | International Finance Corporation |
| IPDP | Indigenous Persons Development Plan |
| ISN | Interim Strategic Note |
| IUCN | International Union for Conservation of Nature |
| KfW | <i>Kreditanstalt für Wiederaufbau</i> |
| LiDAR | Light Detection and Ranging |
| MAP | Madagascar Action Plan |
| Mamabay | Landscape in the northeast of Madagascar comprising Masoala National Park, Makira Forestry Corridor and the Antongil Bay |
| MECIE | <i>Décret N° 2004-167 relatif à la mise en compatibilité des</i> |

investissements avec l'environnement; Madagascar's environmental impact assessment legal framework

| | |
|-------|---|
| MEF | Ministry of Environment and Forests |
| MNP | Madagascar National Parks |
| MRV | Monitoring, Reporting and Verification system |
| NAP | <i>Nouvelle aire protégée</i> / New Protected Area |
| NEAP | National Environmental Action Plan |
| NGO | Non Governmental Organization |
| NPV | Net Present Value |
| ODA | Official Development Assistance |
| ONE | National Environment Office / <i>Office National pour l'Environnement</i> |
| ORAF | Operational Risk Assessment Framework |
| PA | Protected Area |
| PAD | Project Appraisal Document |
| PAP | Project Affected People |
| PCU | Project Coordination Unit / <i>Cellule de Coordination (CELCO)</i> |
| PDO | Project Development Objective |
| PF | Process framework for social safeguards |
| PIE | Project Implementing Entity |
| PPP | Private-public Partnership |
| PRPSE | <i>Plateforme Régionale de Planification et Suivi Environnementale</i> |
| R-PP | REDD+ Readiness Proposal |
| REDD+ | Reducing Emissions from Deforestation and Forest Degradation |
| SAPM | Protected Area Network in Madagascar / <i>Système des Aires Protégées de Madagascar</i> |
| SDR | Special Drawing Rights |
| SESP | Social and Environmental Safeguards Plan |
| TAMS | <i>Tetik'asa Mampody Savoka</i> |
| UNEP | United Nations Environment Program |
| VOI | <i>Vondron'Olona Ifototra</i> / Community Forestry Management Group |
| WAVES | Wealth Accounting and Valuation of Ecosystem Services Global Partnership |
| WB | World Bank |
| WCS | Wildlife Conservation Society |
| WWF | World Wide Fund for Nature |

| | |
|-------------------|-----------------------------|
| Vice President: | Obiageli K. Ezekwesili |
| Country Director: | Haleh Bridi |
| Country Manager: | Adolfo Brizzi |
| Sector Director: | Jamal Saghir |
| Sector Manager: | Idah Z. Pswarayi-Riddihough |
| Task Team Leader: | Jean-Christophe Carret |

MADAGASCAR

ADDITIONAL FINANCING REQUEST FOR THIRD ENVIRONMENTAL SUPPORT PROGRAM PROJECT (EP3)

CONTENTS

Project Paper Data Sheet

Project Paper

| | |
|--|----|
| I. Introduction..... | 1 |
| II. Background and Rationale for Additional Financing..... | 3 |
| III. Project Restructuring and Additional Financing Activities | 8 |
| IV. Appraisal Summary..... | 13 |

Annexes

| | |
|--|----|
| Annex 1: Results Framework and Monitoring..... | 20 |
| Annex 2: Operational Risk Assessment Framework (ORAF) | 25 |
| Annex 3: Project Background, Rationale & Detailed Description of Project Activities .. | 28 |
| Annex 4: Revised Estimate of Project Costs..... | 52 |
| Annex 5: Revised Implementation Arrangements and Support..... | 60 |
| Annex 6: Economic and Financial Analysis | 69 |
| Annex 7: Implementation Support Plan | 79 |
| Annex 8: Social Safeguards Implementation in EP3 | 82 |
| Annex 9: Incremental Cost Analysis of GEF Contribution to Foundation..... | 86 |
| Annex 10: Team Composition | 94 |

Tables

| | |
|---|----|
| Table 1: Summary of Project Cost Estimate | 12 |
| Table 2: Summary of Benefit and Costs, Present values as of 2010..... | 13 |
| Table 3: Presentation of Switching Values | 14 |
| Table A3.2: Protected Areas supported by Additional Financing | 35 |
| Table A3.3: Past Capital Contributions to the Foundation | 47 |
| Table A3.4: Past Performance of the Foundation | 47 |
| Table A3.5: Protected Areas to be supported through IDA/GEF Contributions to Foundation..... | 48 |
| Table A4.1: Project Cost Summary..... | 52 |

| | |
|---|----|
| Table A4.2: Project Cost by Year | 53 |
| Table A4.3: Project Cost by Financier | 54 |
| Table A4.4: Project Cost by Year (Base Cost)..... | 55 |
| Table A4.5: Project Cost by Year (Contingencies)..... | 56 |
| Table A4.6: Allocation of Loan Proceeds (IDA) | 57 |
| Table A4.7: IDA Disbursement by Year..... | 58 |
| Table A4.8: Disbursement Table | 59 |
| Table A6.1: Project Investment and Recurrent Costs (US\$ Million) | 69 |
| Table A6.2: National Parks with Hydrological Functions | 73 |
| Table A6.3: Summary of Benefits and Costs, Present Values as of 2010 (US\$ Million). 75 | |
| Table A6.4: Presentation of Switching Values | 76 |
| Table A8.1: Social Safeguards Plans prepared under EP3..... | 84 |
| Table A9.1: Incremental Cost Matrix for GEF Funding..... | 91 |
| Table A9.2: GEF Alternative – Breakdown of Funding Sources by Components (US\$ million) | 93 |

Figures

| | |
|--|----|
| Figure A3.1 Expansion of Madagascar’s PA Network (million hectares)..... | 31 |
| Figure A3.2: Change in forest cover 1950 - 2005 | 33 |
| Figure A5.1: Funds Flow Diagram | 65 |
| Figure A6.1: Number of Visitors in National Parks Supported by EP3 | 71 |
| Figure A6.2: Evolution of Visitors’ Numbers with and without Additional Financing ... | 72 |
| Figure A6.3: Comparison of recurrent Costs and Sources of Sustainable Revenues for the 33 Protected Areas supported by the AF..... | 77 |

Boxes

| | |
|---|----|
| Box 1: Approach of the Additional Financing to Addressing Illegal Logging in Masoala National Park..... | 10 |
| Box 2: Social and Community Development Activities in the Additional Financing | 11 |
| Box A3.1: Madagascar’s biodiversity: a living laboratory, global public good and international responsibility | 29 |
| Box A3.2: Overview of Illegal Logging in Madagascar | 30 |
| Box A3.3: Government Policy on Protected Areas..... | 32 |

MADAGASCAR
THIRD ENVIRONMENTAL SUPPORT PROGRAM PROJECT
ADDITIONAL FINANCING DATA SHEET

| Basic Information - Additional Financing (AF) | |
|---|---|
| Country Director/Manager: Haleh Bridi/Adolfo Brizzi Sector Director/ Manager: Jamal Saghir / Idah Z. Pswarayi-Riddihough Team Leader: Jean-Christophe Carret Project ID: P107484/P113976 Expected Effectiveness Date: September 30, 2011 Lending Instrument: Specific Investment Loan (SIL) Additional Financing Type: Scale-up & Financing gap | Sectors: Forestry (90%), Fishery (10%) Themes: Biodiversity (P), Environmental policies and institutions (P), Other environment and natural resources management (P) Environmental category: B (Partial assessment) Expected Closing Date: December 31, 2014 Joint IFC: No Joint Level: No |
| Basic Information - Original Project | |
| Project ID: P074235/P074236 Project Name: Third Environment Program Support Project Lending Instrument: Specific Investment Loan (SIL) | Environmental Category: B (Partial assessment) Expected Closing Date: December 31, 2011 Joint IFC: No Joint Level: No |
| AF Project Financing Data | |
| <input type="checkbox"/> Loan <input checked="" type="checkbox"/> Credit <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Guarantee <input type="checkbox"/> Other: Proposed terms: The additional credit would be a standard IDA Credit repayable in 40 years, including a grace period of 10 years. | |
| AF Financing Plan (US\$m) | |
| Source | Total Amount (US \$m) |
| Total Project Cost: | 59.2 |
| Co- Financing | |
| Global Environment Facility (GEF4) | 10.0 |
| International NGOs (WWF, WCS, Conservation International) | 2.8 |
| Borrower/Recipient: | |
| (a) Madagascar National Parks | 2.7 |
| (b) Madagascar Foundation for Protected Areas and Biodiversity | 1.7 |
| Total Bank Financing: | |
| IDA | 42.0 |
| New | |
| Recommitted | |

Client Information

Recipient: Republic of Madagascar
Responsible Agency: Ministry of Environment and Forests
 Contact Person: Mr Julien-Nöel Rakotoarisoa, Director-General of Forests
 Telephone No.: 261-33-33-21063
 Fax No.: 261-20-22-30693
 Email: julien.1705@yahoo.fr

AF Estimated Disbursements (Bank FY/US\$59.2)

| FY | 2012 | 2013 | 2014 | 2015 | | |
|------------|------|------|------|------|--|--|
| Annual | 18.7 | 18.8 | 17.9 | 3.8 | | |
| Cumulative | 18.7 | 37.5 | 55.4 | 59.2 | | |

Project Development Objective and Description

Original project development objective (Third Environmental Support Program Project – EP3): Improve the protection and sustainable management of critical biodiversity resources at the field level, mainstream conservation into macro-economic management and sector programs and facilitate the establishment of sustainable financial mechanisms for the environment, thus contributing to the improvement of the quality of life of the population.

Revised project development objective (Additional Financing): Enhance the protection and sustainable management of targeted protected areas

Global environmental objective (Third Environmental Support Program Project – EP3 and Additional Financing): To contribute to the preservation of the quality of regional and global commons through improved natural resource management and biodiversity protection in critical ecological regions, defined as national protected areas and their corresponding buffer zones and corridors.

Project description: Component A: Protected area and landscape management (across 2.7 million hectares including three forestry corridors and one pilot landscapes) - including surveillance, conservation infrastructure investment and piloting of integrated management approaches in one landscape and support to the institutional reform of Madagascar National Parks; Component B: Local community support and development (approx. 90,000 households and > 1,000 grassroots community organizations) - including monitoring of safeguards implemented under EP3, implementation of compensation for communities surrounding two new forest corridors, mitigation of remaining conflicts around established protected areas, and support to community based organizations to increase involvement in protected areas management notably through the community based forestry management contracts; Component C: Sustainable financing mechanisms for protected areas - including a US\$10 million endowment to the Foundation for Protected Areas and Biodiversity from GEF, ecotourism infrastructure development / Public-private Partnership (PPP) investments to optimize the generation and use of tourism revenue to support the protected area network, and development of market mechanisms (carbon finance and other payments for environmental services); and Component D: Project management including project implementation, coordination, supervision, monitoring and evaluation.

| Safeguard and Exception to Policies | | |
|--|---|---|
| Safeguard policies triggered: Environmental Assessment (OP/BP 4.01) Natural Habitats (OP/BP 4.04) Forests (OP/BP 4.36) Pest Management (OP 4.09) Physical Cultural Resources (OP/BP 4.11) Indigenous Peoples (OP/BP 4.10) Involuntary Resettlement (OP/BP 4.12) Safety of Dams (OP/BP 4.37) Projects on International Waters (OP/BP 7.50) Projects in Disputed Areas (OP/BP 7.60) Dealing with <i>de-facto</i> Governments (OP/BP 7.30) | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| Does the project require any exceptions from Bank policies? Have these been approved by Bank management? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| Conditions and Legal Covenants: | | |
| Reference | Description of Condition/Covenant | Date Due |
| Financing Agreement: Paragraph 4.01(c) | The Recipient shall apply sound social, environmental and ecological standards and practices to its protected areas, to avoid a situation which interferes with the sustainable management and operation of such protected areas, raises major reputational risks or otherwise compromises the likelihood of success in the achievement of project objectives. | Throughout duration of additional financing |
| Financing Agreement: Paragraph 4.01(d) | The Recipient shall not repeal, waive, suspend or set aside, or otherwise fail to enforce its Decree 2010-141 prohibiting the cutting, extraction or export of rosewood and ebony, or any provisions thereof. | Throughout duration of additional financing |
| Financing Agreement: Paragraph 4.01(e) | The Recipient shall execute an administrative order or other instrument purporting to delegate authority to NGOs to manage eligible protected areas and, having executed such an administrative order or other instrument, it shall not allow or permit it to lapse, terminate or expire, or to cease to have effect, without alternative arrangements, acceptable to the Bank, having been made to provide for the delegated management of these protected areas. | December 31, 2011 |
| Financing Agreement: Paragraph 5.01(a) | The Recipient shall execute subsidiary agreements with Madagascar National Parks and the Foundation. | Prior to project effectiveness |

| | | |
|--|---|--|
| Financing Agreement, Paragraph 4.02 | The co-financing deadline for the effectiveness of the co-financing agreement for NGO financing is September 30, 2013 | September 30, 2013 |
| Financing Agreement: Paragraph 5.01(b) | The Recipient shall execute the GEF Grant Agreement and fulfill all conditions precedent to its effectiveness or to the right to make withdrawals. | Prior to project effectiveness |
| Financing Agreement: Paragraph 5.01(c) | The Recipient shall establish a Project Steering Committee, Project Coordination Unit and prepare and adopt a Project Implementation Plan. | Prior to project effectiveness |
| Financing Agreement: Schedule II, Section 1, F, Paragraph 1 | The Recipient shall ensure that the project activities are implemented in accordance with the safeguards instruments applicable to the additional financing. | Throughout duration of the additional financing. |
| Financing Agreement, Schedule 2, Section II, Paragraph B.4 | The Recipient shall, not later than three months after the Effective Date: a) recruit an additional internal auditor, having the requisite qualifications and experience, to add to the PCU's internal audit staff and, in so doing, reinforce its internal audit capability; and b) adopt revised terms of reference, acceptable to the Association, for the recruitment of the auditors referred to in Section 4.09 (b) of the General Conditions | Three months after project effectiveness |
| Financing Agreement, Schedule 2, Section IV, Paragraph B.1 (b) | No withdrawals from the IDA credit shall be made in relation to any NGO under a Delegated Management Contract or Service Contract, unless the Delegated Management Contract or Service Contract, has been concluded on terms and conditions acceptable to the Bank. | Throughout duration of additional financing. |
| GEF Grant Agreement: Paragraph 5.01(d) | The Foundation shall update its Administrative and Financial Procedures Manual | Prior to effectiveness of GEF grant |

| | | |
|---|---|--|
| <p>Madagascar National Parks Project Agreement: Schedule, Section II, B(3)</p> | <p>Madagascar National Parks shall establish an audit committee headed by a chartered accountant (having qualifications and experience acceptable to the Bank) that shall report to its board of executive directors; take steps satisfactory to the Bank to strengthen its internal audit reporting arrangements; and require its internal audit department to prepare a comprehensive annual internal audit plan and submit quarterly audit reports.</p> | <p>Throughout duration of additional financing</p> |
| <p>Madagascar National Parks Project Agreement: Schedule, Section IV, Paragraph 1</p> | <p>Madagascar National Parks shall use its own internally generated revenues to cover the depreciation costs of equipment and other investments financed by the project.</p> | <p>Beginning on or after project effectiveness</p> |
| <p>Madagascar National Parks Project Agreement: Schedule, Section IV, Paragraph 2</p> | <p>Madagascar National Parks shall have a study conducted, using terms of reference acceptable to the Bank, of its organizational effectiveness, with emphasis on its evaluation of its size, staff complement and job classification, and communicate the findings and recommendations to the Bank for its review and comments; and proceed forthwith to implement the recommendations of the study, taking into account any comments provided by the Association.</p> | <p>December 31 2012 for submission of study findings and recommendations; program for implementation of study recommendations to be defined in study and approved by the Bank.</p> |

| | | |
|--|--|--|
| <p>Foundation Project Agreement: Schedule, Section IV, Paragraph 3</p> | <p>The Foundation shall prepare a proposed rolling triennial Revenue Allocation Plan (which shall be updated annually) giving detailed estimates of projected revenue on capital earned from capital contributions provided by IDA under EP3 and under the current GEF Grant Agreement, along with details of the proposed allocation of such revenue to finance the recurrent costs of selected protected areas.</p> <p>The Foundation shall have the Plan approved by the Bank, and implement it through the duration of the additional financing.</p> | <p>Prior to effectiveness of GEF grant</p> |
| <p>Foundation Project Agreement Schedule Section II, Paragraph B.3</p> | <p>One internal auditor shall be recruited by the Foundation.</p> | <p>Beginning on or after effectiveness date for GEF grant for Foundation auditor</p> |

I. INTRODUCTION

1. This Project Paper seeks the approval of the Executive Directors to: (i) provide additional financing in an aggregate amount of US\$52 million (\$10 million from GEF4 and \$42 million from IDA15) to the *Madagascar Third Environmental Support Program Project* (EP3) (Project ID: P074235; P074236), (IDA Grant NoH087MAG; GEF Grant No53226); (ii) approve the restructuring of EP3 to reflect the new project development objectives, components and activities that are proposed in line with the exception that was approved for the project under OP7.30 Dealing with *de-facto* governments, and to allow a refocusing of project activities for the protection of a global public good and enhancement of community well-being. A specific exception to OP7.30 was granted by the Bank management on April 9, 2011, which is subject to confirmation by the Board.

2. Madagascar's biodiversity is a unique, irreplaceable global public good representing 5 percent of the world's biodiversity on just 0.4 percent of the global landmass. An impressive array of statistics provides testament to the extraordinary riches of Madagascar's biodiversity: 99 percent of amphibians, 92 percent of reptiles, 95 percent mammals, 83 percent of plant species, and 93 percent of freshwater fish species, are found nowhere else but Madagascar. There are over 1,000 known terrestrial vertebrate species, 6,000 coral reef species, over 12,000 identified terrestrial plant species and an unknown number of un-described species. The country has been labeled the 'eighth continent' in recognition of its unparalleled biological values. Fifty new species of lemurs, Madagascar flagship primate, have been discovered during the last 20 years, bringing the number of known lemur species to 100. The protection of Madagascar's biodiversity is thus an international responsibility.

3. However, these ecological riches stand in stark contrast to the country's high levels of poverty. Madagascar ranks 135th out of 169 countries in the 2009 Human Development Index; 171st out of 181 countries in terms of GDP/capita, and has a national poverty rate of more than 77 percent. Conservation and protection of the country's natural patrimony imposes an insurmountable fiscal burden for a poor country such as Madagascar. The country generates just 1/10,000 of global GDP which is clearly insufficient, even under normal circumstances, to allow protection of the terrestrial and marine ecosystems that contain one twentieth of the world's biodiversity. As it is, the country has been in the throes of a protracted civil crisis for nearly two years that has seen public spending dip to 12 percent of GDP; one of the lowest ratios anywhere in the world.

4. The EP3, which supports two thirds of the established network of national parks, was scheduled to close in June 2011. However, a request for the extension of the closing date has been received and is being processed, and is expected to be approved before Board. The closing of the project will cause the immediate suspension of surveillance measures across 1.9 million hectares of protected areas, including 28 established national parks and one newly created forestry corridor, and termination of social safeguards activities for 26,000 households. It will also place at risk initial investments made in avoided deforestation activities. Such a scenario would represent a particularly grave risk to the country's environmental assets given the increased pressures from illegal logging and poaching that are resulting from the political instability. The Government of Madagascar cannot cover the financing gap, nor are other donors likely to commit funds given the ongoing political uncertainty.

5. The proposed additional financing would provide needed bridge financing to 33 protected areas covering 2.7 million hectares for the next three years, with a focus on surveillance and implementation of safeguards-related activities. Four additional protected

areas would be included in the additional financing: two national parks in the northeast where illegal logging is the most intense and two forestry corridors with high potential to generate carbon revenues and where support is required to address social issues. The proposed additional financing would simultaneously support the creation of sustainable financing mechanisms and promotion of longer-term community development. As presently designed, the additional financing offers a unique opportunity to tackle poverty in remote rural areas surrounding the 33 protected areas - where around 200,000 households live in absolute poverty - without the direct involvement of a central government, which has yet to be recognized by the African Union Commission, and the international community at large.

6. There is a medium level of risk associated with the additional financing. The main risks are linked to the current political situation that may render policy dialogue difficult and generate negative perceptions on the part of stakeholders. The additional financing would build on twenty years of experience of the Bank in the environment sector in Madagascar to optimize project efficiency and would manage the risks associated with the project associated by establishing adequately robust implementation arrangements, specifically by ensuring that key institutions involved in project implementation are independent and have the technical and fiduciary capacity to fulfill their project related responsibilities.

7. The risks of inaction would be substantially higher, potentially threatening the country's unique biodiversity and placing at risk nearly 20 years of successful Bank support for the protection of Madagascar's biodiversity assets. Without a continuation of this support, permanent losses of the unique global patrimony are likely to occur, arguably constituting an emergency situation that will increase the reputational risk to the Bank as existing environmental and social safeguards will lapse, and completion of safeguards for all protected areas supported by EP3 will not be achieved.

8. The IDA contribution to the additional financing would be managed by the existing Project Coordination Unit (PCU or CELCO in French) that would be strengthened and supported by the Bank. The IDA funds would be channeled *directly* through the PCU to contracted autonomous project implementing entities which will implement activities on the ground: Madagascar National Parks, and complementary efforts by reputable civil society organizations - Conservation International, WWF and Wildlife Conservation Society - that are currently involved in managing Madagascar's protected areas, and *indirectly* through the Madagascar Foundation for Protected Areas and Biodiversity; referred to as the Foundation. The GEF contribution would add to the capital of a conservation trust fund (the Foundation) where IDA has already invested \$7.5 million.

9. The Bank is uniquely placed to provide the required support through the mechanism of an additional financing given its leading role in providing assistance to Madagascar's environment sector during the three phases of its 20 year support to the national Environmental Program, its proven relationships with international and Malagasy civil society organizations, and its long-term commitment to protection of the environment in Madagascar. In the 2011 World Development Report entitled '*Conflict, Security and Development*', the Bank recognizes the long term benefits of strengthening natural resource management governance structures in fragile states; this approach aids in stemming illegal financial flows from resource exploitation, and can thus contribute to increased stability and security, as well as an enhanced voice for civil society and local communities.

10. The representatives of the international community, international NGOs and their Malagasy counterparts have, at various stages of the project development process, all expressed support for the additional financing, and the need for exceptional actions to protect Madagascar's unique natural resources.

II. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

1. Biodiversity and Protected Areas in Madagascar (refer Annex 3)

11. Madagascar is recognized as a mega-diverse country; proportionate to land area there is no other country with higher concentrations of biological endemism across different taxonomic levels. The extraordinary number of species (over 12,000 species of plants and over 1,000 species of vertebrates), and the elevated levels of endemism (more than 90 percent of species are found nowhere else on earth) mean that the country's forests and biodiversity represent a global public good. Madagascar's natural patrimony is also important at the national level. Tourism and shrimp fisheries are two of the most important sources of foreign exchange earnings, and both sectors are heavily dependent on natural resources and healthy ecosystems. With more than 70 percent of the Malagasy population living in rural areas, and rural poverty rates of more than 80 percent, the interdependence between poverty, livelihoods and natural resources is strong and precarious.

12. However, Madagascar's unique biodiversity and habitats are under significant and growing threat. Traditionally, small-scale, slash and burn agriculture (*tavy*) and burning of pastureland for agricultural use were the main causes of deforestation. In recent years, growing international interest in large-scale mining and oil exploration operations have exerted increased pressure on natural habitats. The protracted political crisis that began in 2008 is also taking a toll on Madagascar's environmental assets. Significant increases in illegal logging of precious timber have been recorded: for example, in 2009, an estimated 50,000 tons of timber from rosewood and ebony trees was illegally extracted from the Marojejy, Mananara and Masoala protected areas in the northeast of the country. Poaching of the radiated tortoise (*Astrochelys radiata*) listed as critically endangered on the IUCN Red List, has increased and the ploughshare tortoise (*Astrochelys yniphora*), the rarest tortoise in the world, is facing extinction. Natural resource exploitation by local communities is also on the rise due to the economic slowdown that is disproportionately affecting the wellbeing of rural, natural resource dependent households. Longer-term threats to biodiversity include population growth - with the population expected to double by 2030 - and the risks from climate change. Paradoxically, the high levels of endemism and narrow environmental tolerances of many groups of species make them highly vulnerable to future climate change.

13. The protected area network in Madagascar, which is known as the *Système des Aires Protégées de Madagascar*, covers approximately 6.9 million hectares¹ including 2.4 million hectares of national parks managed by Madagascar National Parks (MNP) and 4.5 million hectares of new protected areas that are being developed predominantly by NGOs (including Conservation International, Wildlife Conservation Society and WWF) on behalf of the Ministry of Environment and Forests. Landscapes or corridors covering 2.6 million hectares have also obtained formal temporary protection status from the Government. Triggered by the 2003 Presidential Declaration, known as the "Durban Vision" which undertook to triple the surface of Madagascar's protected areas, the expansion of the network has been rapid and substantial. There are currently 144 protected areas covering 12 percent of the national territory, an increase in coverage from 2.9 percent in 2003. Political and financial support for the realization of this vision has been provided by a number of international donors², and the

¹ These figures reflect the most recent official statistics for the protected area network surface and are taken from Decree No. 52005/2010 dated December 20, 2010. New protected areas differ from parks because they don't restrict all usages from population.

² Including the French, Swiss and German governments, the EC, UNDP, various international NGOs including Conservation International, the private sector including Dell and Air France, and private foundations including the Moore and MacArthur Foundations.

Bank has played a key role in facilitating this process. It is noteworthy that despite the political turmoil, the current de-facto Government has not renounced the Durban Vision.

14. The ambitious expansion of the protected area network has led to a challenging financial situation marked by funding shortfalls for both national parks and forestry corridors. Since its creation nearly two decades ago, Madagascar National Parks has not yet become financially independent and is still highly dependent on foreign aid. IDA/GEF contributes the largest share, followed by KfW and together these donors account for more than 90 percent of Madagascar National Park's budget. The network of new protected areas is also financed by external sources, notably by multi-donor trust funds, international NGOs, and private international foundations. Based on the findings of a recent evaluation of the costs of financing of the national protected area network, it is estimated that from 2012 onwards, the annual management cost of the network could reach US\$15 million/year. Aside from foreign aid, other funding sources currently contribute approximately US\$3 million / year or 20 percent of the network annual cost. Ecotourism revenues, from visitor entry fees, contribute approximately US\$0.5 million / year; and in 2011, the Foundation will disburse US\$0.5 million generated from a capital of US\$25 million to seven protected areas. It is also assumed that the NGOs will contribute some US\$2 million per year for the new protected areas. The government no longer provides funding to the protected area network. The sale of carbon credits is in its infancy; the first such sale generated approximately US\$0.6 million for the management of the Makira forestry corridor in the country's northeast.

2. Description and Performance of EP3

15. Since 1990, the Bank has worked with a large number of development partners to support Madagascar in implementing the National Environmental Action Plan (NEAP). This Plan was implemented in the form of a three-phase Environment Program with a total budget of approximately US\$400 million. The combined results of the three phases of the Environment Program are impressive: the creation of 2.4 million hectares of national parks, and 4.5 million hectares of forestry corridors being managed predominantly by NGOs on behalf of the State; the establishment of institutions for the management, financial control and monitoring of environment related activities; and the reduction of the rate of deforestation by 75 percent in 20 years. The Bank's contribution to the Environment Program has been through a series of Environmental Support Program projects. The Madagascar Third Environmental Program Support Project (EP3) – the third and final of these projects - was approved on May 11, 2004 and became effective on September 13, 2004. The grant was financed through a combination of IDA (US\$40 million) and GEF (US\$9 million) funds.

16. The original Development Objectives (DOs) of EP3 are to (i) *improve the protection and sustainable management of critical biodiversity resources at the field level, mainstream conservation into macro-economic management and sector programs;* and (ii) *facilitate the establishment of sustainable financial mechanisms for the environment, thus contributing to the improvement of the quality of life of the population.*

17. The original Global Environmental Objective (GEO) of EP3 is to *contribute to the preservation of the quality of regional and global commons through improved natural resource management and biodiversity protection in critical ecological regions, defined as national protected areas and their corresponding buffer zones and corridors.*

18. The EP3 has contributed substantially to achieving the Durban Vision. Over 860,000 hectares of protected areas (five new protected areas and six extensions) were created under EP3 and the project currently provides support to the management of 1.9 million hectares of protected areas, representing nearly one third of the network including 60 percent of national

parks (28 parks covering 1.6 million hectares) and 10 percent of new protected areas, (the forestry corridor of Fandriana-Vondrozo covering 0.3 million hectares). Safeguards for 26,000 households are being implemented and the EP3 has supported the initiation of sustainable financing sources for the network, notably through capitalization of the Foundation and preparation for the entry of Madagascar into the carbon market.

19. The Bank supervision team rated the achievement of the project's DO and overall implementation progress satisfactory during the first supervision mission in 2005, moderately satisfactory during the three following missions (2005, 2006) with a downgrading to moderately unsatisfactory for the DOs and maintenance of moderately satisfactory for the GEO during the mid-term review in 2007. Following the mid-term review the project was restructured into four core components to better align activities and indicators with national priorities. This restructuring also provided the needed resources for the implementation of environmental and social mitigation measures and the restructured EP3 led to the preparation of eleven social safeguards plans and one indigenous people's plans to address environmental and social aspects of the protected areas that were created or extended during EP3.

20. In November 2008 the project was downgraded due to delays in programming the creation / extension of protected areas and the completion of environmental assessments and safeguard plans for new protected areas. Following the 2008 supervision mission, the Bank team made significant efforts to improve project performance. Increased technical and capacity building support was provided to the PCU and substantial efforts were made in the area of social safeguards through capacity building and increased supervision of service providers responsible for preparing and implementing social safeguards plans. The resulting improvements to project performance were noteworthy. Evaluation of project performance to 2009 indicated that the project had met or exceeded key impact indicators, while others had exceeded or were on track for compliance until their progress was disrupted due to the political unrest. Compliance with loan covenants has been satisfactory and all covenants have been met³.

21. Madagascar's political crisis that began in late 2008 led to an assessment of the project in line with OP/BP 7.30, Dealing with de-facto governments that concluded that the suspension of project activities would leave approximately one-third of Madagascar's protected areas covering 1.9 million hectares at risk without environmental protection, and place approximately 26,000 households without access to socio-economic mitigation measures. The assessment concluded that the reputational risk for the Bank was unacceptably high and needed to be addressed. Implementation of an *Environmental and Social Safeguards Action Plan* was authorized for a limited range of activities under a single project component related to protected area management through a US\$12 million budget, and the extension of project closing to June 2011. The three other project components of EP3 were suspended, and monitoring of their indicators stopped.

22. The most recent ISR dated 15 March 2011, rated achievement with the GEO as satisfactory and with the PDO as moderately satisfactory. The 29 protected areas supported under the project are monitored and protected; no encroachment or illegal logging has been reported, although continued poaching of protected tortoise species from Cap Sainte Marie and Baie de Baly protected areas has been reported. One year after the adoption of the Action Plan, the safeguards plans for ten newly created or extended national parks as well as the Indigenous People Development Plan for Mikea protected area have been finalized. Contracts for the implementation of compensation projects have been signed and service providers are

³ The Government adopted Decree 2010-141 in 2010 that prohibits the exploitation and exportation of illegally logged precious woods, although it is noted that there have been reported violations to this Decree.

working around the ten national parks. Safeguards work in the vicinity of the Fandriana-Vondrozo forestry corridor is expected to commence in coming months. Other elements of the exception to OP7.30 have also been completed.

23. The Bank's experience with EP3 generated a series of highly valuable lessons that have been integrated into the development of the project to optimize project effectiveness and to ensure that the project builds on existing achievements. The objectives of EP3 were complex and required the collaboration and coordination of a large number of stakeholders and sectors. The scope of EP3 was equally complex; it was a broad project initially with three components that were increased after restructuring to four elaborate and distinct components. In retrospect it is recognized that the objectives of EP3 were too ambitious and that the project scope was unrealistic. On the other hand, the exception to OP7.30 was only given to the protected area management component while the three other components were suspended leading to a simplification of the EP3 and eventually of the additional financing which is also focusing on protected area management only.

24. Madagascar National Parks and the PCU will be critical to the successful implementation of the additional financing. The experience with EP3 demonstrated that inadequate attention had been paid to the institutional structure of Madagascar National Parks and that the responsibilities assigned to this 20-year-old organization were outside the limits of its capacities. In terms of the PCU, there was a lack of focus on technical supervision of project activities. These issues have been addressed in the additional financing through the inclusion of support to institutional reform to Madagascar National Parks and the strengthening of the technical capacity of the PCU.

3. Rationale for Additional Financing

25. Urgent actions are needed now to stop further permanent loss of the country's and the world's unique natural heritage. The costs of inaction would be significant: it would leave a large proportion of the protected area network open to increasingly significant threats as described below, and would engender lost opportunities in terms of revenue generation as described in the following paragraphs, with the potential to contribute significantly to national economic development - particularly through tourism and in the future carbon finance.

26. The current threats to Madagascar's biodiversity are of a magnitude unseen in recent history. The country's longest political crisis yet has led to a substantial undermining of the fledgling governance systems that were protecting the country's unique biodiversity. The numbers are numbing: 1,000 critically endangered Radiated Tortoise species are poached each week; only 200 critically endangered Ploughshare Tortoises are left in the wild; the country is home to highest priority primate fauna in the world - 101 species, of which a high percentage are endangered; 50,000 tons of precious wood worth US\$200 million was illegally logged and shipped out of the country in 2009, causing damage across 20,000 ha in a UNESCO World Heritage site that has since been listed as "in danger". Madagascar has already lost 9 percent of its species since 1950 due to deforestation.

27. There is enormous potential for the country's natural resource base not only to "pay its own way", but also to contribute to poverty reduction and economic development. Before the political crisis, nature based tourism was growing at 10 percent/year and was a US\$0.5 billion industry (by way of comparison, the size of Madagascar's economy is US\$7 billion), employing some 10 percent of the labor market, mostly rural females. Carbon finance – predominantly through avoided degradation and deforestation - has the potential to generate, assuming that good governance structures are in place, more than US\$6 million/year of

revenues (for the remaining 9 million ha of forests) and the private sector (Air France, Dell, Mitsubishi) has already demonstrated, through US\$ 15 million pilot investments, its keen interest in this market. Ecosystem services are vital for the country's natural resource dependent population; the protected area network provides water services worth US\$4 million/year to downstream farmers and urban water users. These sources of financing already exist but need to be supported so that their feasibility can be demonstrated to decision makers and local communities alike, thus proving irrevocably that the loss any more of Madagascar's unique species and ecosystems would have serious economic consequences.

28. The additional financing will address a short-term need to fill a critical financing gap to ensure ongoing protection of 2.7 million hectares of the protected area network, with a focus on surveillance and social safeguards activities, through provision of bridge financing to 33 protected areas. To ensure that previous achievements under the EP3 are capitalized, the additional financing will continue to support the 29 protected areas supported by EP3, namely 28 national parks managed by Madagascar National Parks and the Fandriana-Vondrozo forestry corridor.

29. It will also extend the Bank's support to four additional protected areas with urgent financing needs. These include: (i) three protected areas in the northeast Makira forestry corridor and Masoala National Park - where illegal logging is the most intense, and Nosy Manga Be Special Reserve, an island which is managed as part of Masoala National Park; and (ii) one forestry corridor in the east, the forestry corridor Ankeniheny-Zahamena where the Bank is involved in carbon finance transactions through the BioCarbon Fund. These additions will increase the surface of the protected area network supported by the Bank to 2.7 million hectares, representing 40 percent of the current network. The bridge financing will ensure that the safeguards that have been put in place will be protected and it will allow completion of safeguards in remaining protected areas. This bridge financing will also *protect the Bank's previous investments* in the face of political uncertainty and aid poverty reduction efforts in the short term.

30. The additional financing will also address a medium to long-term need to scale up activities to enhance sustainable management of the network and optimize management costs through: (i) sustainable financing mechanisms – support to ecotourism, preparation for international ecosystem service markets and further capitalization of the Foundation; (ii) increased focus on long-term community development; and (iii) support for the reorganization of Madagascar National Parks. These actions will prepare for the future by encouraging the creation of a protected area network that has a sustainable mix of financing sources and a better integration of conservation and development activities.

31. The risk assessment has concluded that the overall risk during project preparation and implementation is medium; with a low likelihood of occurrence but a high impact should the risk be realized. The key risks are related to the current political situation (refer Annex 2). As a result, the additional financing has been designed to work with agencies such as Madagascar National Parks, the Foundation, and the three international NGOs that are autonomous and that work at arm's length from Government. In addition, as the Government has not provided funding to these agencies since 2008, the additional financing will not induce any budget transfers from these agencies to the administration. It is considered that the risks of not proceeding with the additional financing, or delaying action are unacceptably high both in terms of the effects on biodiversity and communities in Madagascar and the reputational risk to the Bank .

32. The proposed project is in line with the World Bank Strategy for Africa and would support the existing CAS objectives for Madagascar. One of the CAS milestones – to develop

a “*sustainable financing framework for the [protected area network]*” – supports the CAS outcome of having “*6 million ha established under the [protected area network].*” In light of the political crisis, an Interim Strategic Note (ISN) will be drawn up in the near future. A Country Environmental Analysis that will analyze the issue of financing of the protected area network is in preparation and will be used to inform the ISN.

33. Additional financing is the preferred mechanism. The current political situation in Madagascar is not conducive to the use of other lending tools such as a repeater project or a new project. Termination of Bank support to protected areas and conservation in Madagascar is, as discussed, not considered a feasible option given the status of the country’s natural resources as a global public good and the international community’s obligation to contribute to their conservation and their importance for the rural poor.

34. The additional financing is complemented by US\$7.2 million of co-financing from Madagascar National Parks, the Foundation and three international NGOs. In addition, some US\$11 million in parallel financing from a range of organizations including the Japanese Social Development Fund (JSDF), the Zoo de Zurich, UNESCO, the Government of Norway finance similar activities in and around the targeted protected areas: JSDF in the vicinity of Mikea, Zoo of Zurich in Masoala National Park, and the Norwegian Government and UNESCO in the six parks forming the World Heritage Area (Masoala, Marojejy, Zahamena, Ranomafana, Andringitra and Andoahela). KfW also provides parallel financing, which supports five national parks outside of those supported by IDA/GEF (Marojejy, Andringitra, Ankarafantsika, Tsimanampetsotsa and Kirindy Mitea) and technical assistance to Madagascar National Parks’ headquarters.

III. PROJECT RESTRUCTURING AND ADDITIONAL FINANCING ACTIVITIES

1. EP3 Restructuring Request

35. EP3 was structured around four components: Component A: Protected area management and biological diversity valorization; Component B: Forest ecosystem management and mitigation of natural resource degradation; Component C: Environmental mainstreaming; and Component D: Strengthening the governance and effectiveness of the environmental and forest administration. Following the application of OP7.30 and adoption of an Action Plan in 2009, an exception was granted to allow continuation of Component A, while the remaining three project components were suspended. In line with lessons learned from EP3, it is now proposed to restructure the EP3 to finalize cancellation of three components of EP3 and allow continuation, under the additional financing, of a more focused set of activities relating to protected area management and financing under only one of the original EP3 project components (Component A). The restructuring request also addresses changes to the PDO and associated indicators to reflect this change in scope.

36. It is proposed to revise the PDO to better reflect the more focused scope of activities proposed under the additional financing. The original PDO was “*To improve the protection and sustainable management of critical biodiversity resources at the field level, mainstream conservation into macro-economic management and sector programs and facilitate the establishment of sustainable financial mechanisms for the environment, thus contributing to the improvement of the quality of life of the population*”. The revised PDO is “*To enhance the protection and sustainable management of targeted protected areas.*” The project’s GEO would remain unchanged as follows: “*To contribute to the preservation of the quality of regional and global commons through improved natural resource management and biodiversity protection in critical ecological regions, defined as national protected areas and their corresponding buffer zones and corridors.*”

37. Revised outcome and intermediate indicators have been developed to reflect changes to the PDO and to ensure availability of baseline data and feasibility of data collection. Annex 1 contains the revised results framework.

2. Description of Additional Financing Activities (refer Annex 3)

38. The additional financing would be structured into four components: Component A: Protected area and landscape management; Component B: Local community support and development; Component C: Sustainable financing mechanisms for protected areas and landscapes; and Component D: Project management, monitoring and evaluation. The component costs shown below include the co-financing to the additional financing that will be provided by Madagascar National Parks, the Foundation, and the NGOs working in the three forestry corridors.

(i) Component A: Protected area and landscape management (US\$ 23.2 million, of which IDA US\$16.0 million): This component is structured around five sub-components: (i) protected area surveillance (\$US17.5 million of which IDA \$US11.7 million) that will involve updating of surveillance plans, and ranger patrols and aerial surveillance of 33 protected areas (30 MNP national parks and 3 corridors); (ii) conservation infrastructure including firebreaks, guard stations, park boundary markers and other essential conservation infrastructure in 33 protected areas (US\$2.1 million of which IDA US\$1.9 million); (iii) provision and renewal of essential equipment for park management in 30 MNP national parks, including vehicles and office equipment (US\$1.1 million financed by IDA); (iv) strategic landscape management in one pilot landscape - the Mamabay landscape in the northeast - including natural resource baseline creation, support to stakeholder platforms, land use and natural resource planning, and increased regional civil society involvement in natural resource monitoring (US\$0.5 million; financed by IDA); and (v) Madagascar National Parks institutional reform to improve the organization's structure and thus its operational efficiency (US\$2.1 million of which IDA US\$0.8 million). Should severance of Madagascar National Parks personnel be required, these costs will be covered by the co-financing from Madagascar National Parks.

(ii) Component B: Local community support and development (IDA: US\$ 14.0 million): This component is structured around two sub-components: (i) US\$6.0 million for social safeguard implementation and monitoring (benefiting some 90,000 households) that will involve auditing of the eleven safeguards plans implemented under EP3, preparation of safeguards plans and implementation of compensation sub-projects for two corridors (Ankeniheny – Zahamena corridor and Makira), evaluation of outstanding conflicts between established national parks and local communities and implementation of resolution / mitigation measures in 19 locations, and development of technical standards for safeguard implementation in protected area creation; and (ii) US\$8.0 million for support to or creation of 900 local park surveillance committees, support to 400 community development sub-projects, support to 30 Park Support Committees in the vicinity of 30 protected areas, as well as for 175 Community Forest Management Groups (75 new and 100 existing groups) around the 33 protected areas, including establishment of new management contracts and capacity building for newly established groups, involvement in restoration activities in protected areas, trialing of methods for increased involvement in protected area surveillance and management, development of income generation projects, and strengthened capacity for management of natural resources.

Box 1: Approach of the Additional Financing to Addressing Illegal Logging in Masoala National Park

Located in the northeast of the country, Masoala National Park covers an area of 230,000 ha and is managed by Madagascar National Parks. The most significant threat to the exceptional biodiversity in the Park arises from illegal exploitation of rosewood and ebony trees, which led in 2010 to the Park being placed on the ‘World Heritage in Danger’ list.

The Government and a number of financial and technical partners are engaged in efforts to protect the National Park. The Government has established and is implementing an Action Plan for enforcement and control activities, and UNESCO is financing development of a supplementary Action Plan, under the guidance of a national Steering Committee, to outline activities linked to the restoration and maintenance of the World Heritage values of the National Park. Financing for the implementation of this Action Plan will be secured in June 2011 and is likely to include US\$1 million from the Norwegian Government.

The activities proposed in Masoala National Park as part of the additional financing aim to ensure the sustainability of the short term enforcement and restoration activities carried out by the Government and technical partners. Over the life of the additional financing, approximately US\$2,300,000 has been allocated for activities in the National Park⁴, including US\$300,000 of revenues generated by the GEF contribution to the Foundation.

The project will improve monitoring of the park through MNP ranger patrols and mixed patrols with forestry officers, annual aerial surveillance, and awareness raising activities with local communities. Landscape level activities will also be carried out including natural resource baseline development, support to stakeholder platforms and creation of a landscape wide regional civil society “watchdog” monitoring group. The additional financing aims to enhance the demand side of environmental governance in relation to illegal logging thus contributing to an increased voice for civil society.

A retrospective social evaluation will be carried out to identify conflicts between the National Park and local communities (approximately 4,500 households) and development sub-projects will be implemented to improve community support for the National Park. The project will work with grassroots community organizations involving more than 900 households around the National Park to establish and support community based natural resource management contracts, involve community groups in Park surveillance activities across 7,000 ha and restoration activities, and develop approximately 50 natural resource based income generation projects for 750 households.

To enhance the important tourism potential of the National Park, ecotourism infrastructure including development of ecotourism circuits, signage and camping areas will be developed to facilitate controlled tourist access into the core zone of the National Park; an experience that is currently denied to visitors to the Park but one that is in high demand. One ecotourism site in the National Park will be selected and infrastructure developed to facilitate development of a public-private infrastructure project and up to two community based tourism projects, involving a total of 50 to 100 households, will be developed in the vicinity of the National Park.

The agreement between the Bank and Government of Madagascar for the additional financing includes a commitment on the part of the Government to enforce the national legal framework prohibiting the exploitation or exportation of illegally logged timber. The Bank will have the right to suspend project activities should the Government renege on its commitment.

(iii) Component C: Sustainable financing mechanisms for protected areas and landscapes (IDA: US\$8.9 million; GEF: US\$10 million): This component comprises three sub-components: (i) GEF financed endowment of US\$10 million⁵ and IDA US\$0.7 million for associated technical support to a national conservation trust fund to generate and manage revenues to co-fund the recurrent costs of ten national parks; (ii) IDA US\$5.4 million for

⁴ Approximately US\$581,000 for recurrent management costs, US\$310,000 for landscape monitoring and stakeholder engagement, US\$759,000 for community based activities and US\$354,000 for tourism related activities.

⁵ The GEF contribution will be in the form of a capital endowment rather than through a sinking fund given the higher cost-effectiveness of this option and the better alignment with the mandate of the Foundation.

support to ecotourism development including upgrading of park access roads and visitor interpretation centers, and construction of tourist circuits and signage in 18 national parks, mechanisms to facilitate Public Private Partnership investments in 8 national parks, and development of 15 community based eco-tourism sub-projects in selected protected areas, including infrastructure and capacity building; and (iii) IDA US\$2.8 million for development of baseline of carbon stocks for three forestry corridors in preparation for avoided deforestation activities together with an evaluation of the legal and institutional framework for carbon finance activities, and technical studies on causes of deforestation and degradation and carbon governance, and pilot projects for the valuation of hydrological services provided by one forestry corridor most likely the Ankeniheny-Zahamena forest corridor.

Box 2: Social and Community Development Activities in the Additional Financing

The Additional Financing will represent an evolution in the approach to supporting local communities (around 200,000 households live in districts surrounding the 2.7 million hectares of protected areas supported by the Additional Financing) in the vicinity of the targeted protected areas compared to EP3. US\$15 million will be dedicated to financing a suite of activities that have been integrated into all technical project components, and approximately 90,000 households will benefit from these activities. The following activities will be carried out:

- An audit of all social safeguards activities implemented under EP3 for 26,000 households to ensure the ongoing effectiveness of these activities and to draw lessons for the development of a technical standard on the implementation of safeguards into protected area development (US\$200,000 for 26,000 households).
- For 19 national parks that were established before the start of Bank requirements for safeguards, an evaluation of the relationship between the local communities and the national park and the development and implementation of sub-projects to assist in the resolution of any outstanding conflicts (US\$3,100,000 for 30,000 households).
- Development of social safeguards plans for the Makira and Ankeniheny – Zahamena forestry corridors and implementation of sub-projects to facilitate the restoration of income of households affected by restriction to natural resources (US\$2,600,000 for 15,000 households).
- Support to 900 Community Park Committees (known locally as *Comité Local de Parc*) through development of a community involvement strategy for improved involvement in park co-management, support to community surveillance activities and implementation of approximately 400 small income generation projects (US\$4,100,000 for 9,000 households).
- Support to 30 Park Support Committees (known locally as *COSAPs*) through capacity building and reinforcement of their advisory and liaison role (US\$500,000 for 450 households).
- Support to 175 Community Forest Management Groups (known locally as *VOIs*) including the establishment of 75 new community based forestry management contracts, support to 100 existing contracts through capacity building and provision of equipment and support to income generation sub-projects (US\$3,300,000 for 7,500 households).
- Support to community based tourism investments in and around selected protected areas that would generate employment and alternative revenue sources (US\$1,200,000 for 750 households).

(iv) Component D: Project management, monitoring and evaluation (IDA: US\$ 3.0 million): This component finances project management, and monitoring and evaluation of the additional financing activities. It will also support the implementation of measures to strengthen the Project Coordination Unit (PCU) to ensure it has adequate institutional capacity to collect, analyze and report on project results and towards a future supervisory role as Secretariat of the Project Steering Committee. It will finance the introduction of technical functions at the national coordinator level and will support strengthening of the internal audit and monitoring and evaluation roles of the PCU. This will involve technical assistance,

expertise, consultant services, salaries and operating costs, logistical support, supervision mission expenses and equipment.

39. *Project Results Framework and Monitoring*: The opportunity has been taken to revise the project's PDO and indicators in line with the proposed restructuring of the project, the restricted exception to OP7.30 and the new and modified activities included in the additional financing. Annex 1 contains the detailed project results framework indicating where modifications have been made from the original project. Four of the original PDO indicators and fifteen of the intermediate results indicators were retained, revised or improved. Monitoring is entirely focused on activities financed by the additional financing.

3. Cost Estimate and Implementation Arrangements

40. The total estimated budget for the additional financing is US\$52.0 million, of which US\$42 million would be financed by IDA, and US\$10 million by GEF (refer Table 1). The total project cost is US\$59.2 million of which US\$7.2 million would be co-financing from Madagascar National Parks, the Foundation and international NGOs. Annex 5 outlines the institutional, fiduciary and safeguards arrangements for the additional financing and Annex 7 contains an Implementation Support Plan that describes the Bank's implementation support role with a focus on the risk mitigation measures identified in the ORAF.

Table 1: Summary of Project Cost Estimate

| Republic of Madagascar Third Environmental Support Project - Additional Financing Components Project Cost Summary | (USD Million) | | | % Total |
|---|---------------|-------------|-------------|--------------|
| | Local | Foreign | Total | Base |
| | | | | Costs |
| A. Protected Area and Landscape Management | | | | |
| A.1 Protected Area surveillance | 15.0 | 0.8 | 15.8 | 29.3 |
| A.2 Conservation infrastructure | 1.6 | 0.1 | 1.8 | 3.3 |
| A.3 Conservation and management equipment | 0.5 | 0.5 | 1.0 | 1.9 |
| A.4 Landscape Strategic Management | 0.3 | 0.1 | 0.4 | 0.8 |
| A.5 Support to MNP reorganization | 1.4 | 0.3 | 1.7 | 3.2 |
| Subtotal | 18.8 | 1.9 | 20.7 | 38.3 |
| B. Local Community support and development | | | | |
| B.1 Community development and involvement in protected areas management | 3.8 | 1.7 | 5.5 | 10.1 |
| B.2 Community development and involvement in PA management | 6.4 | 0.7 | 7.1 | 13.2 |
| Subtotal | 10.2 | 2.4 | 12.6 | 23.4 |
| C. Sustainable Financing mechanisms for PAs and Landscapes | | | | |
| C.1 Conservation Trust Fund | 0.2 | 10.4 | 10.6 | 19.6 |
| C.2 Support to ecotourism development | 3.3 | 1.6 | 4.8 | 9.0 |
| C.3 Preparation for environmental services markets | 1.7 | 0.7 | 2.4 | 4.4 |
| Subtotal | 5.2 | 12.7 | 17.8 | 33.1 |
| D. Project Management, Implementation, Monitoring and Evaluation | | | | |
| D.1. Project coordination and supervision | 1.3 | 0.4 | 1.7 | 3.1 |
| D.2. Project monitoring and evaluation | 0.1 | 0.0 | 0.1 | 0.1 |
| D.3. Technical assistance and training for project management & monitoring | 0.2 | 0.4 | 0.6 | 1.2 |
| D. 4. Operating expenses for project management | 0.5 | - | 0.5 | 0.9 |
| Subtotal | 2.0 | 0.8 | 2.8 | 5.3 |
| Total BASELINE COSTS | 36.2 | 17.8 | 54.0 | 100.0 |
| Physical Contingencies | 2.3 | 0.4 | 2.7 | 5.0 |
| Price Contingencies | 2.2 | 0.4 | 2.5 | 4.7 |
| Total PROJECT COSTS | 40.7 | 18.5 | 59.2 | 109.7 |

Note: Figures may not add up to total due to rounding

41. The proposed project duration would be three years with an expected closing date of December 31, 2014. Effectiveness is anticipated for September 30, 2011 and it is proposed to commence the additional financing at the same time that the current EP3 activities are being completed (a request for the extension of the closing date has been received and is being processed, and is expected to be approved before Board). Delays to the commencement of the additional financing could cause significant adverse effects on project outcomes by creating a

financing gap for the protected areas that are currently financed by EP3 and that would be targeted by the additional financing.

IV. APPRAISAL SUMMARY

1. Economic and Financial Analysis (refer Annex 6)

42. For the purpose of the economic analysis, economic costs were grouped into four categories: (i) investment costs; (ii) physical contingencies; (iii) incremental recurrent costs and (iv) opportunity costs resulting from access restrictions to ecosystems. The economic cost of the project has been estimated, with a discount rate of 10 percent and a total life of public investment of 20 years, at US\$57.2 million in net present value (NPV) including US\$21.6 million of recurrent costs originating mainly from surveillance in 30 national parks. The opportunity cost has been simulated to compensation for 90,000 households.

43. The project will protect 30 national parks and 3 corridors. Three types of economic benefits have been identified: revenues from ecotourism in the 10 most visited national parks (i.e. fees, taxes and salaries in the eco-tourism industry), ecological services such as watershed protection and carbon sequestration and conservation of biodiversity (i.e. preserving the existence of animal and vegetal species that are found nowhere else). The gross economic benefits of the project have been estimated at US\$73.5 million in net present value, with ecotourism representing the largest share with 51 percent of the total, followed by watershed protection, representing 37 percent and finally the two global benefits (carbon sequestration and biodiversity conservation) representing 12 percent. Benefits from biodiversity conservation were assimilated to the revenues of the endowment fund and are thus very conservative.

Table 2: Summary of Benefit and Costs, Present values as of 2010

| Benefits per type | PV (US\$ Million) | 2012 | 2013 | 2014 | 2015-26 |
|---|--------------------------|-----------------|-----------------|----------------|----------------|
| Ecotourism | \$37.8 | \$0.3 | \$0.6 | \$0.9 | \$102.8 |
| Watershed Protection | \$27.2 | \$0.0 | \$0.0 | \$3.6 | \$60.6 |
| Endowment Fund | \$5.2 | \$0.3 | \$0.6 | \$0.8 | \$9.1 |
| Carbon Sequestration | \$3.3 | \$0.0 | \$0.0 | \$0.0 | \$7.8 |
| Project Cost (investment and recurrent) | (\$57.2) | (\$20.4) | (\$12.7) | (\$8.6) | (\$49.8) |
| Net Present Value (NPV) | \$16.3 | (\$19.8) | (\$11.6) | (\$3.3) | \$130.5 |
| ERR=15.7 % | | | | | |

44. The calculations of the Net Present Value (NPV) and Economic Rate of Return (ERR) for the project shows that the project is likely to increase the welfare of the country by US\$16 million corresponding to an ERR of 16 percent and is therefore justified from an economic point of view.

45. Table 3 presents the switching values for the sensitivity analysis. The most critical values are benefits generated by ecotourism. If actual ecotourism benefits are more than 93 percent less than predicted, the NPV of the project will become negative (assuming all other values are stable) and the project will no longer be economically viable. The number of visitors to protected areas is partly beyond the control of the additional financing as it is dependent on numerous external factors such as infrastructure improvement and establishment of a successful investment climate for PPP developments. On the other hand, the number of tourists is strongly dependent on the political situation of the country.

Table 3: Presentation of Switching Values

| Variable | Switching value (percent) |
|--|----------------------------------|
| Ecotourism benefits | - 93 |
| Watershed protection benefits | - 150 |
| Protected area surveillance costs | 180 |
| Sustainable financing mechanisms costs | 420 |

46. By showing that ecotourism revenues are the main benefits from the additional financing, the economic analysis suggests that biodiversity protection is not only in the interest of the global community, but also worthwhile for the Government of Madagascar, creating a double dividend situation.

47. As far as ecological services are concerned, the results of the economic analysis suggest that the country should be conservative in its investments of public money in carbon sequestration. While this is a promising future source of sustainable financing to manage forestry corridors as exemplified by the investments already made by the private sector, caution is required due to the lack of an international agreement and regulatory framework as well as outstanding methodological questions. On the other hand, the country should improve its valuation of watershed protection services. The benefits derived from hydrological services are at first glance significant, but these are rough estimates due to lack of sound, site specific data. The additional financing includes activities as part of the *Wealth Accounting and Valuation of Ecosystem Services* (WAVES) Global Partnership (Component C.3) that will refine these estimations through field based investigations in pilot protected areas supported by the project.

48. Finally, the economic analysis suggests that positive externalities (watershed protection) far outweigh negative ones (access restriction) confirming that the project has a positive effect on poverty reduction, even if the compensation cannot be carried out by the participating stakeholders and must be by the project itself.

49. The additional financing has as one of its major objectives a reduced dependence of the protected area network on foreign aid. In order to achieve this objective, the additional financing invests in the development of sustainable financing mechanisms that transform some of the inherent economic benefits into financial flows for conservation. As a result, at the end of the additional financing it is expected that the capitalization of the Foundation's endowment and the piloting of carbon activities in the three forestry corridors should generate US\$1.5 million representing 39 percent of the recurrent costs of the 33 protected areas. In addition, the ecotourism revenues captured by MNP (50 percent of visitor entrance fees) should be adequate to cover 59 percent of the recurrent costs of the 33 protected areas at the end of the additional financing, if the required investments in ecotourism infrastructure have been made. That being said, Madagascar National Parks captures only a fraction of the fiscal revenues generated by ecotourism. The additional financing will therefore include a study on mechanisms to transfer a larger proportion of these fiscal revenues to the protected area managers. If for some reason (e.g. a financial crisis or governance issues that delay the materialization of revenues from avoided deforestation) the benefits from the endowment fund or carbon finance don't materialize, the country would need to transfer US\$1.5 million from the fiscal revenues generated by tourism to cover the recurrent costs of the project.

2. Technical Aspects

50. Key technical aspects discussed during the appraisal related to: (i) the choice of protected areas to be included in the additional financing; (ii) the need to enhance

consideration of the social and community development aspects in protected area management; (iii) the mechanisms to ensure tourism activities are supported and integrated within the protected area network; and (iv) the identification of activities to be included in the additional financing to support the entry of Madagascar into a future avoided deforestation performance payment mechanism (referred to as REDD+).

51. Two categories of protected areas were discussed for inclusion in the additional financing. Firstly, those protected areas (28 national parks and one forestry corridor) that were supported by the EP3⁶. The need for continued support to these protected areas was evident as it represents a means of protecting and enhancing previous investments in these areas.

52. The second category of protected areas that were considered for inclusion were protected areas that had not traditionally been supported by EP3, but that are experiencing a financing gap and meet one or more of the following criteria: (i) are of international biodiversity importance and are experiencing high levels of threats that make them a high conservation priority; (ii) have synergy with other Bank activities; and (iii) and/or have high potential for operationalization of sustainable financing mechanisms. Four protected areas in this category were identified for inclusion in the additional financing. Masoala National Park and Nosy Manga Be Special Reserve: The national park has been a hotspot of illegal logging activities and is thus a high conservation priority. The tourism potential of the national park is high, and Madagascar National Parks which manages this protected area has forecast a financing gap. Nosy Manga Be is a small island that is managed as an integral part of the national park and that has high tourism potential. Makira Forestry Corridor is located in the northeast and together with Masoala National Park contains twenty percent of Madagascar's biodiversity and thus one percent of the world's biodiversity. The corridor has generated the first sale of carbon credits on the voluntary market. The Ankeniheny-Zahamena Forestry Corridor is the subject of World Bank carbon finance activities (through the BioCarbon Fund) and has a strong potential to generate carbon credits.

53. During the implementation of the EP3 a profound debate on the importance of support to local communities affected by the creation and management of protected areas was carried out by the Bank and its development partners. To reflect this evolution in thinking on the importance of providing concrete support to households and communities affected by protected area management, the additional financing has dedicated in the order of US\$15 million (representing 25 percent of the budget) to social and community development activities. Such activities go beyond measures to compensate for loss of household revenues and aim to increase the economic sustainability of communities around protected areas (refer Box 2).

54. The economic analysis demonstrated the importance of tourism activities to generate economic benefits for the country and a possible source of sustainable revenues for managing the national park network. In the development of the project attention was paid to the definition of tourism related activities to ensure that lessons were drawn from past experiences in this domain. The final choice of activities is based on the need to ensure a mixture of tourism types in the country and to this end, activities targeting high, medium and lower end tourists have been included in the project. As well as policy and 'soft' measures to enhance tourism developments the project will also support fundamentally importance

6 These protected areas were selected for inclusion in the EP3 through a participative selection process based on the following criteria: (i) richness in diversity, (ii) uniqueness, (iii) vulnerability, (iv) irrigated area downstream of PAs susceptible to sand erosion, (v) potential for drinking water supply, (vi) contribution to protection of a watershed, (vii) frequency of visitors, (viii) tourism potential, (ix) impact on local development, (x) infrastructure, equipment and management/planning tools needs, (xi) financing needs and self-financing capacity.

infrastructure developments, the lack of which has hindered tourism developments in the past.

55. The country is waiting for its REDD + Readiness and Preparation Proposal to be officially approved by the Forest Carbon Partnership Facility – a process that has been suspended because of the current political crisis. In preparation for the future implementation of the Readiness and Preparation Proposal it was agreed that the additional financing will finance technical studies on trends in deforestation and degradation, and on options for the future institutional, legal and fiduciary arrangements for management of carbon revenues. The additional financing support would focus on knowledge generation through technical studies related to institutional and legal frameworks for carbon finance, causes of degradation and deforestation and models for carbon governance, as well as field based testing of different methodologies for development of a national carbon stock baseline and the implementation of the preferred methodology in pilot sites in three forestry corridors supported by the additional financing.

3. Institutional Arrangements (refer Annex 5)

56. The additional financing has been designed both to, as far as possible, retain the status quo in terms of the well performing implementation arrangements of EP3, and to respond to the current political instability in Madagascar. The existing PCU (known locally as CELCO – *Cellule de Coordination*) which has been operating autonomously since the beginning of the political crisis, including during the exception phase (January 2010 – June 2011), has been proven to be competent, reliable in terms of fiduciary activities, and staffed with professional specialists (IDA financed consultants) and will remain in place as the PCU. The Bank's technical and fiduciary teams have worked satisfactorily with the PCU. Support and strengthening of this institution will be carried out by a technical assistance during the additional financing in order to reinforce PCU role in technical and fiduciary issues and to complement its functions with a supervisory role (a technical director will be hired and assisted by an international consultant).

57. Two project implementing entities will undertake operational activities. Madagascar National Parks – an institution that is legally and financially autonomous and that works at arm's-length from the administration – will carry out activities in 30 national parks⁷. The Foundation – an equally autonomous entity – will carry out activities aimed at strengthening its technical and management systems and will manage the disbursement of revenues to ten protected areas⁸.

58. A subset of activities will be implemented by the three main international conservation NGOs (Conservation International, WWF and the Wildlife Conservation Society) involved in the management of three corridors⁹.

59. A Project Steering Committee, to be chaired by the Ministry of Environment and Forests, would be established to oversee project implementation. The Steering Committee would include representatives of Madagascar National Parks, the Foundation, local and international NGOs, community representatives – through inclusion of representatives of park support committees, the private sector - particularly in relation to tourism activities, and

⁷ Madagascar National Parks is an independent association with a nine member Board that was created in 2008 under the auspices of Ordinance 60/133 dated 3rd October, 1960 containing general regulations on associations.

⁸ The Foundation was created as an independent trust fund in 2005 by Decree N° 2005/024 under the auspices of Law 2004-014 and operates with an autonomous nine member Board.

⁹ These three independent NGOs each have operating agreements with the Government of Madagascar under the auspices of Law 96-030 containing specific regulations on NGOs operating in Madagascar.

individuals in a strategic advisory function. It is foreseen that the PCU will provide the secretariat function of the Steering Committee and technical strengthening of the PCU will be carried out to assist it to fulfill this function.

4. Financial Management, Disbursement and Audit Arrangements (refer Annex 5)

60. The financial management system and performance of the PCU under the initial project are acceptable to IDA. The financial management performance of the project was rated moderately satisfactory following the last implementation support mission conducted in February 2011. The overall financial management risk rating is medium risk, high impact.

61. The financial management of the additional financing will follow the same approach as the implementation arrangements in place for the ongoing project managed by the PCU. The PCU will retain its current responsibility for the overall financial management of the project and will be charged with oversight of financial management by all implementing entities, consolidation of the budgets, preparation and consolidation of the project's quarterly interim financial reports and annual financial statements, submission of annual audit reports, management of disbursements and preparation of withdrawal applications. The PCU will issue guidelines to the implementing entities regarding financial management matters.

62. The PCU will also retain its current responsibility for the overall procurement activities in compliance with the Bank guidelines and procedures. New project agreements with Madagascar National Parks and the Foundation will be prepared, and either delegated management contracts or service contracts will be developed with Conservation International, WWF and the Wildlife Conservation Society¹⁰.

63. An assessment of the financial arrangements of the Wildlife Conservation Society noted that it has not yet implemented any World Bank projects in Madagascar but that it is currently receiving funding from several external donors and is conversant with donor reporting procedures. It has financial management personnel with the appropriate qualifications and experience, accounting procedures are documented in the form of a manual and internal controls are assessed as adequate. A recent evaluation of its financial management capacity in preparation for a US\$1.8 million financing from the Japanese Social Development Fund was positive.

64. The financial management capacity of Conservation International and WWF was also assessed. The two institutions possess appropriately qualified personnel and clearly documented financial management procedures. They are subject to oversight and periodic monitoring by their respective headquarters in the area of financial management. They are also involved in managing a significant amount of funding received from external donor organizations.

65. A financial management assessment of the Foundation was also performed and it was established that it has qualified and experienced personnel as well as an internal control structure comprising budgetary controls, financial management procedures, financial reporting and external audit arrangements. Given the increase in the number of sites to be financed under the additional financing, the Foundation will need to recruit an Internal Auditor to reinforce the monitoring of the use of funds by the sites.

¹⁰ A delegated management contract would vest the NGO with responsibility for overall technical and fiduciary management of certain parts of the project in accordance with terms and conditions approved by the Bank. A service contract would engage the NGO to carry out one or more activities in line with a pre-defined Terms of Reference, with fiduciary oversight to rest with the PCU.

66. The internal audit function of the PCU, contracted to an individual consultant, operates well. However following the supervision of February 2010 during which some internal control weaknesses were identified and based on the recent special investigation, commissioned by the Madagascar National Parks Board of Directors, which revealed that an amount of Ariary 525 million (equivalent to US\$259,000) could not be accounted for by the Antsiranana Regional Directorate of Madagascar National Parks, it was agreed that the internal audit function within the PCU will be reinforced through the recruitment of an additional internal auditor within a period of three months subsequent to effectiveness of the additional financing. This is aimed at enhancing the internal audit coverage of all the activities and entities financed by the Bank.

67. In response to the recent special audit findings related to the fraud at Madagascar National Parks, the organization has put in place a Board audit committee and strengthened internal audit reporting arrangements. Madagascar National Parks' internal audit department is required to submit quarterly audit reports to the Board audit committee and a team of seven internal auditors have been assigned responsibility for specific regional offices and the related national parks. There is also a new requirement that all transactions at regional level in excess of Ariary 5 million (equivalent to approximately US\$2,500) have to be pre-approved by the Madagascar National Parks Director General's Office. The PCU will review all Madagascar National Parks' internal audit reports and undertake additional reviews as may be deemed necessary to ensure that Bank funds are utilized for the intended purpose.

68. There is no overdue audit report for the project or for the sector at the time of preparation of this additional financing. The audit report of the project accounts managed by the PCU covering the period that ended December 31, 2009 was submitted on time. The 2009 audit report of the project accounts had a clean audit opinion with an emphasis of matter relating to the case lodged by Madagascar National Parks before the courts of law arising from the fraud and irregularities committed at the Antsiranana Regional Directorate. As noted above, Madagascar National Parks has taken steps to implement remedial measures to prevent and detect fraud. The misappropriated funds have now been entirely reimbursed to the Bank.

69. The accounts of the additional financing will be audited on an annual basis and the external audit report including the management letter will be submitted to IDA within six months after the end of each calendar year. The Terms of Reference for the external auditing firm will be updated to reflect the additional financing requirements. The additional financing will comply with the Bank disclosure policy of audit reports.

70. Upon effectiveness of the additional financing, transaction-based disbursements will be used as for the ongoing project. An initial advance up to the ceiling of the Designated Account for the IDA credit (representing four months forecasted project expenditures) will be made into the Designated Account and subsequent disbursements will be made on a monthly basis against submission of Statements of Expenditures and other supporting documents as specified in the Disbursement Letter. The ceiling of this Designated Account will be increased to an amount equivalent to four months of forecasted expenditures; the new ceiling will be effective upon additional financing effectiveness. The proceeds of the GEF grant will be disbursed by a single withdrawal request. For the financing under the IDA credit the PCU will open a new Designated Account denominated in US Dollars on terms and conditions acceptable to IDA. Interest income received from the Designated Accounts will be removed from the Designated Account as soon as it accumulates and accounted for in a separate project account in accordance with Madagascar's accounting regulations.

71. Based on the current overall residual financial management risk, the project will be supervised twice a year, in addition to routine desk-based reviews, to ensure that project financial management arrangements operate as intended and that funds are used efficiently for the intended purposes.

5. Safeguards Issues (refer Annex 8)

72. The project's management of environmental and social safeguards is moderately satisfactory overall. Activities proposed for the additional financing are similar to those already completed under the parent project and the safeguards Category B thus remains unchanged. The additional financing will trigger the same safeguard policies that applied to EP3: OP 4.01 Environmental Assessment, OP 4.04 Natural Habitat, OP 4.12 Involuntary Resettlement and OP 4.10 Indigenous Peoples. The Government will maintain its previous commitment to the principle of "parks with people" and no physical displacement will therefore occur under the additional financing. No new environmental risks are expected to arise under the additional financing and the proposed activities will not trigger any new safeguard policies.

73. The EP3 safeguard instruments - Environmental Assessment, and an Environmental and Social Management Framework, a Process Framework and an Indigenous People Development Plan - remain applicable for the proposed activities under the additional financing. These documents do not require modification, and re-disclosure is therefore not necessary during the preparation of this proposed additional financing. To date, the eleven Social and Environmental Safeguards Plans for the creation or extension of protected areas under the parent project, prepared by independent consultants, were approved by the Bank and disclosed to the local communities neighboring each protected area and in implementation since October 2010. The existing implementation arrangements for the safeguards aspects of EP3 will be retained for the additional financing (implemented directly by Madagascar National Parks, NGOs, and the Foundation and supervised by the PCU).

74. The Recipient's safeguards requirements for the additional financing are also applicable to the activities of the Foundation. The Foundation will adopt a procedures manual which will incorporate the guidelines and principles contained in the additional financing safeguards instruments along with the Foundation's own detailed operational procedures. The approval by the Bank of such a manual following its adoption by the Foundation's Board will be a condition of the effectiveness of the GEF grant.

75. For the remaining project activities, safeguards requirements will be met through Social and Environmental Safeguards Plans that will be prepared and implemented in two forestry corridors - the Corridor Ankeniheny-Zahamena and Makira - and a strategic environmental and social analysis of the outcomes of technical studies related to preparation for access to a future avoided deforestation performance payment mechanisms. The draft Terms of Reference for the strategic social and environmental analysis will be disclosed on completion of the abovementioned technical studies.

Annex 1: Results Framework and Monitoring

* Project Appraisal Document, Mid Term Review Restructured, Exception Action Plan

| Revision to the Results Framework | |
|---|--|
| PDO | |
| Current (PAD) | Proposed |
| The project's Development Objectives (DOs) are to (i) <i>improve the protection and sustainable management of critical biodiversity resources at the field level, mainstream conservation into macro-economic management and sector programs;</i> and (ii) <i>facilitate the establishment of sustainable financial mechanisms for the environment, thus contributing to the improvement of the quality of life of the population.</i> | The project's Development Objective (PDO) is to <i>enhance the protection and sustainable management of targeted protected areas.</i> |
| The project's Global Environmental Objective (GEO) is to <i>contribute to the preservation of the quality of regional and global commons through improved natural resource management and biodiversity protection in critical ecological regions, defined as national protected areas and their corresponding buffer zones and corridors.</i> | The project's Global Environmental Objective (GEO) is to <i>contribute to the preservation of the quality of regional and global commons through improved natural resource management and biodiversity protection in critical ecological regions, defined as national protected areas and their corresponding buffer zones and corridors.</i> |
| PDO indicators (4) | |
| Current (PAD*) | Proposed change |
| N° of endemic bird and lemur species extinction the PA network | Dropped |
| Rate of deforestation of vegetation cover (%/y) | Dropped |
| Level of threat of PA network | Level of threat in project supported PAs (threat index) |
| Rate of treatment of submitted complaints | Dropped |
| Na | Dropped |
| Na | Dropped |
| Percentage of revenue of visitor entry fees redistributed via community projects | Dropped |
| Renewal of natural resource management contracts (in % of expired contracts) | Dropped |
| Na | Number of households adjacent to the protected areas that have benefitted from off park natural resource livelihood activities (number of households) |
| Amount of capital mobilized from the Foundation for PAs (in US\$ millions) | Surface of PA network with recurrent costs supported with revenues from the combined project endowment and previous EP3 endowment to the Foundation (ha) |
| N° of tourists visiting PAs | Dropped |
| Na | Dropped |
| Number of regional plans integrating environmental considerations | Dropped |
| Na | No of female beneficiaries (number of persons) |
| Surface of PAs (temporary and permanent status) | Dropped |
| Rate of representation of 46 habitats in national PA network (%)* | Dropped |
| Reduction in surface burnt (% / baseline of 650'000 ha) | Dropped |

| | |
|--|---|
| % of private investments conforming to national environmental assessment legislation | Dropped |
| Rate of integration of environmental considerations in school curricula | Dropped |
| Volume of wood exploited that uses a tracking system (% of national volume) | Dropped |
| Rate of implementation of E-government services | Dropped |
| Rate of efficiency of forest control units | Dropped |
| Intermediate Results Indicator (15) | |
| Current (PAD) | Proposed change |
| Na | Aggregated Management Effectiveness Tracking Tool Scores for the targeted protected areas |
| No of surveillance grids monitored in 27 PAs | Number of surveillance grids monitored in 33 PAs |
| Index of MNP overall management efficiency (%)** | Dropped |
| Na | Number of paid patrolling days of local surveillance committees |
| Km of PA boundaries marked and maintained | Km of PA boundaries marked and maintained |
| No infrastructure for ecotourism formed and maintained | Dropped |
| Km de circuits formed and maintained | Km of tourism circuits established and maintained to operational standard |
| Na | Dropped |
| No safeguards plans validated | Dropped |
| Rate of implementation of safeguard measures | Rate of total affected households' economic losses compensated by implementation of safeguards plans |
| Na | Number of new PAs complying with national technical standard for social safeguards |
| No of Park Support Committees (COSAP) operational | Number of PAs with operational community co-management structure |
| Total surface of forests subject to management transfer | Surface of forests legally managed by local communities |
| Protected Area Foundation | Dropped |
| Na | Index of management efficiency of the Foundation in implementation of PA network financing |
| Surface of pilots sites of carbon sinks (ha) | Number of carbon finance pilot sites generating revenues |
| Na | Generated funds from direct and indirect fiscal revenues from ecotourism and carbon credits made available for conservation and communities (\$/year) |
| No of codes developed | Dropped |
| No concessions allocated to private sector | Number of community and private sector ecotourism investments commenced in supported PAs |
| Number of tourists visiting PAs | Dropped |
| No regional stakeholder platforms (PRPSE) in place | Dropped |
| No of regional environmental monitoring systems (TBER) | Dropped |
| Number of regional independent control units in place | Number of regional civil society monitoring groups operational and undertaking regular reporting of results |
| Indicator of administrative and financial efficiency of Ministry | Index of management efficiency of PCU in implementation and monitoring of project |
| <i>Km of firebreaks formed and maintained</i> | <i>Na</i> |
| <i>Additional surface of MNP PA network with permanent stats</i> | <i>Na</i> |
| <i>Surface of SC created / managed (ha)</i> | <i>Na</i> |
| <i>Ha forests subject to zoning plan</i> | <i>Na</i> |
| <i>Additional surface of Kolo Ala in PA</i> | <i>Na</i> |

| | |
|---|-----------|
| <i>Surface of Kolo Ala under transparent and competitive adjudication</i> | <i>Na</i> |
| <i>Ha forests subject to management transfer evaluated</i> | <i>Na</i> |
| <i>No of wildfire control committees revitalized</i> | <i>Na</i> |
| <i>Km of firebreaks implemented</i> | <i>Na</i> |
| <i>Dina activated</i> | <i>Na</i> |
| <i>Surface reforested and maintained (ha)</i> | <i>Na</i> |
| <i>No land tenure certificates linked to reforestation</i> | <i>Na</i> |
| <i>No of HHs using alternative energies</i> | <i>Na</i> |
| <i>No of charcoal producers trained</i> | <i>Na</i> |
| <i>No of finance instruments developed</i> | <i>Na</i> |
| <i>No of Govt sectors with environmental unit.</i> | <i>Na</i> |
| <i>No of interministerial committees operational</i> | <i>Na</i> |
| <i>Application of MECIE through one stop shop (No permits delivered annually)</i> | <i>Na</i> |
| <i>New officers integrated into administration and trained</i> | <i>Na</i> |
| <i>Operation of a system of financial control to the satisfaction of major donors</i> | <i>Na</i> |
| <i>Planning and disbursements undertaken quarterly according to norms and regulations</i> | <i>Na</i> |

REVISED PROJECT RESULTS FRAMEWORK

| Project Development Objective (PDO): | | | | | | | | | | |
|--|------|------------|-------------------|----------|--------------------------|----------|-----------|-------------|---------------------------|------------------------------------|
| The project's Development Objectives (DOs) are to (i) improve the protection and sustainable management of critical biodiversity resources at the field level, mainstream conservation into macro-economic management and sector programs; and (ii) facilitate the establishment of sustainable financial mechanisms for the environment, thus contributing to the improvement of the quality of life of the population. | | | | | | | | | | |
| Revised Project Development Objective: | | | | | | | | | | |
| The project's Development Objective (PDO) is to enhance the protection and sustainable management of targeted protected areas. | | | | | | | | | | |
| PDO Level Results Indicators* | Core | D=Dropped | Unit of Measure | Baseline | Cumulative Target Values | | | Frequency | Data Source / Methodology | Responsibility for Data Collection |
| | | C=Continue | | | December | December | December | | | |
| | | N= New | | | 2012 | 2013 | 2014 | | | |
| | | R=Revised | | | | | | | | |
| Level of threat in project supported PAs (threat index) | N | C | Threat index | 28 | 25 | 20 | 15 | Annually | Ecological monitoring | MNP / Corridor managers |
| Surface of PA network with recurrent costs co-funded from revenues from the combined project endowment and previous EP3 (IDA) endowment to the Foundation (ha) | N | N | Hectares | 130,000 | 430,000 | 535,000 | 1,050,000 | Annually | Foundation statistics | PCU |
| Number of households adjacent to the protected areas that have benefitted from park, natural resource and livelihood activities | N | N | Number | 0 | 20,000 | 45,000 | 90,000 | Annually | Household surveys | PCU |
| Of which female beneficiaries | Y | N | Number | 0 | 55,000 | 125,000 | 240,000 | Annually | Household surveys | PCU |
| Intermediate Results Indicators* | Core | D=Dropped | Unit of Measure | Baseline | Cumulative Target Values | | | Frequency | Data Source / Methodology | Responsibility for Data Collection |
| | | C=Continue | | | December | December | December | | | |
| | | N= New | | | | | | | | |
| | | | | | | | | | | |
| Intermediate Result (Sub-Component A.1): PA surveillance is carried out | | | | | | | | | | |
| Aggregated Management Effectiveness Tracking Tool Scores for the targeted protected areas | | R | Percentage / year | 69 | 72 | 75 | 80 | Annually | Aerial surveys | MNP / Corridor managers |
| Number of surveillance grids ¹¹ monitored in 30 national parks and 3 corridors | | R | Nb | 0 | 60,000 | 120,000 | 180,000 | Bi-Annually | PA Mgt Unit data | MNP / Corridor managers |
| Number of paid patrolling days of local surveillance committees | | N | Nb Days | 0 | 50,000 | 150,000 | 250,000 | Bi-Annually | PA Mgt Unit data | MNP / Corridor managers |
| Intermediate Result (Sub-Component A.2): Conservation infrastructure is constructed and maintained | | | | | | | | | | |
| Km of PA boundaries marked and maintained | | C | Km | 0 | 6,500 | 13,000 | 13,000 | Bi-Annually | PA Mgt Unit data | MNP / Corridor managers |

¹¹ For the purposes of surveillance, each PA is divided into a mosaic of surveillance grids of 500m x 500m.

| Intermediate Result (Sub-Component A.4): Regional stakeholders are involved planning and executing pilot landscape management | | | | | | | | | | |
|--|---|---|----------|-----|---------|---------|---------|-------------|------------------------------------|-------------------------|
| Number of regional civil society monitoring groups operational and undertaking regular reporting of results | | R | Nb | 0 | 0 | 1 | 1 | Annually | Evaluation consultant | PCU |
| Intermediate Result (Sub-Component B.1): Social safeguards are implemented and monitored | | | | | | | | | | |
| Rate of total affected households (PAP) economic losses compensated by safeguards plans | | N | Percent | 25% | 50% | 75% | 100% | Annually | Household surveys | PCU |
| Number of PAs in the national network complying with national technical standards for social safeguards | | N | Percent | 10% | 35% | 50% | 65% | Annually | DSAP data | PCU |
| Intermediate Result (Sub-Component B.2): Local communities are involved in PA management and benefit from sustainable development opportunities | | | | | | | | | | |
| Number of PAs with operational community co-management structure | | N | Nb | 1 | 10 | 20 | 33 | Annually | Evaluation Consultant | Consultant |
| Surface of forests legally managed by local communities | | R | Hectares | 0 | 170,000 | 200,000 | 250,000 | Annually | Evaluation Consultant | Consultant |
| Intermediate Result (Sub-Component C.1): FAPB Endowment fund is increased by 10m USD and managed efficiently | | | | | | | | | | |
| Index of management efficiency of Foundation in implementation of PA network financing ¹² | | N | Index | - | - | - | - | Annually | Evaluation Consultant | PCU |
| Intermediate Result (Sub-Component C.2): Ecotourism is developed and contributes to conservation financing | | | | | | | | | | |
| Km of tourism circuits established and maintained to operational standards | | R | Km | 0 | 150 | 300 | 350 | Bi-Annually | PA Mgt Unit data | MNP / Corridor managers |
| Number of community and private sector ecotourism investments commenced in supported PAs | | C | Nb | 0 | 0 | 10 | 23 | Annually | MNP data | MNP |
| Generated funds from direct and indirect fiscal revenues from ecotourism and carbon credits made available for conservation and communities (\$/year) | N | N | \$/year | 0 | 100,000 | 200,000 | 300,000 | Annually | National register / MNP statistics | PCU |
| Intermediate Result (Sub-Component C.3): Readiness for entry into international ecosystem services markets is increased | | | | | | | | | | |
| Number of carbon finance pilot sites generating revenues | | R | Nb | 1 | 2 | 3 | 4 | Annually | Evaluation consultant | PCU |
| Intermediate Result (Sub-Component D.1): The project is managed efficiently | | | | | | | | | | |
| Index of management efficiency of PCU in implementation and monitoring of project | | R | Index | 50% | 65% | 80% | 95% | Annually | Evaluation Consultant | PCU |

¹² This index will be developed and baseline and target values set during the initial stages of project effectiveness. This process will be supported by the technical assistance activities financed by the additional financing.

Annex 2: Operational Risk Assessment Framework (ORAF)

| Project Development Objective | | | | | |
|---|---|--|--|---|---|
| To enhance the protection and sustainable management of targeted protected areas. | | | | | |
| PDO Level Results Indicators: | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">1. Level of threat in project supported protected areas (threat index)</td> </tr> <tr> <td style="padding: 2px;">2. Number of households adjacent to the protected areas that have benefitted from park, natural resource and livelihood activities (no.)</td> </tr> <tr> <td style="padding: 2px;">3. Surface of PA network with recurrent costs supported with revenues from the combined project endowment and previous EP3 endowment to the Foundation (ha)</td> </tr> <tr> <td style="padding: 2px;">4. Number of female beneficiaries (no. persons)</td> </tr> </table> | 1. Level of threat in project supported protected areas (threat index) | 2. Number of households adjacent to the protected areas that have benefitted from park, natural resource and livelihood activities (no.) | 3. Surface of PA network with recurrent costs supported with revenues from the combined project endowment and previous EP3 endowment to the Foundation (ha) | 4. Number of female beneficiaries (no. persons) |
| 1. Level of threat in project supported protected areas (threat index) | | | | | |
| 2. Number of households adjacent to the protected areas that have benefitted from park, natural resource and livelihood activities (no.) | | | | | |
| 3. Surface of PA network with recurrent costs supported with revenues from the combined project endowment and previous EP3 endowment to the Foundation (ha) | | | | | |
| 4. Number of female beneficiaries (no. persons) | | | | | |

| Risk Category | Risk Rating | Risk Description | Proposed Mitigation Measures |
|----------------------------------|--------------------|---|---|
| Project Stakeholder Risks | MI | Misunderstanding of the project rationale and justification on the part of stakeholders may complicate project implementation. | Stakeholder consultation has been carried out as part of the appraisal mission and consultations will continue up to and following Board consideration of the project. During project implementation the proposed additional financing will include increased support for implementation of sub-projects to at least restore, if not improve, communities' livelihoods and address negative impacts of the establishment of PAs, together with proactive measures to increase the benefits generated for local communities. Civil society stakeholders will have an increased role in monitoring activities in priority conservation areas in the northeast of the country. |
| Implementing Agency Risks | MI | Traditional governance limitations exist and are being exacerbated by the ongoing political crisis. However the project is aligned with the Project Implementing Entities' objectives – i.e. biodiversity protection, protected area creation and management and engagement of local communities - and a high level of project ownership is thus expected. Project Implementing Entities are autonomous structures that are independent from the Government. However, lack of capacity affects ability of Project Implementing Entities to undertake their assigned roles and responsibilities. | An evaluation of Project Implementing Entities capacities have been undertaken during project design to allow specific capacity building needs to be identified. Ongoing capacity building efforts are included in project design for protected area managers and the Foundation with a focus on fiduciary management and safeguards implementation. The Project Coordination Unit (PCU) will be strengthened and supported by a TA throughout project implementation. During implementation the PCU and Foundation will each recruit an additional Internal Auditor charged with performing periodic in-depth reviews of fiduciary |

| | | | |
|--|----|--|---|
| | | | management and internal controls of the implementing agencies. |
| Project Risks | | | |
| <ul style="list-style-type: none"> Design | L | The project design is considered low risk as experiences from preceding phases of the Environment Program have been integrated into project design. | Project design has built on lessons learnt and recent research findings, as well as extensive consultations before finalization of the design, to ensure that it is realistic and optimized. To ensure that the sustainable financing mechanisms to be supported under the project will be fully operational and that protected area managers/promoters will have the institutional structures in place to access these financing sources, the project will work with to ensure that there is a clear understanding of the objectives of the additional financing project in terms of decreased reliance on public development aid. |
| <ul style="list-style-type: none"> Social and Environmental | ML | There are no significant social and environmental risks. Environmental and social impacts of the project will be ameliorated through the preparation of social safeguards plans. | The project safeguards documents include an ESMF, EA/MP, RPF, and Process Framework. The project continues to support Protected Areas networks Unit (MNP) approach to working with communities in partnership. Implementation of the additional financing will include dedicated funds for social safeguard plan preparation and implementation for newly created corridors supported by the project. |
| <ul style="list-style-type: none"> Program and Donor | L | Donor collaboration and program coordination are adequate and pose low risks to the project. | Project design will build on lessons learnt and recent research findings to ensure program and donor risks are reduced to acceptable levels. |
| <ul style="list-style-type: none"> Delivery Quality | L | Delivery quality is adequate and poses low risks to the project. | Project design will build on lessons learnt and recent research findings to ensure delivery quality is maximized. An evaluation of PIE capacity in procurement and contract management has been undertaken during project design to allow specific capacity building needs to be identified. |

| Overall Risk Rating at Preparation | Overall Risk Rating During Implementation | Comments |
|------------------------------------|---|--|
| MI | MI | The additional financing represents an extension of the third and final phase of a 20 year environmental support program. The project design has been continually refined and improved over time, and key stakeholders have generally had long experience with the Bank and its requirements for project implementation. The project will build on existing 'wins' and redress identified gaps in technical project design and continue to improve |

| | | |
|--|--|---|
| | | <p>capacity building and governance support efforts.</p> <p>The additional financing would manage the risks to the project associated with the current political instability by ensuring adequate arrangements are established and supported for project implementation. An autonomous PCU would be strengthened and supported and funds would be channeled directly from the PCU to MNP, the Foundation and NGOs. The project activities would be implemented by these largely autonomous structures that have their own Boards and which work at arms-length from the Government.</p> <p>There is a risk that the project could face opposition from donors (opposed to support to a non-recognized Govt. or the focus on natural resources) or sections of the Government (opposed to Bank activity or to the narrowed focus of the project). Consultations will continue to communicate the project rationale and justification prior to and following Board consideration of the project.</p> <p>Measures have been taken to ensure a low risk investment environment despite an earlier incident of fraud and the team is reassured by the Government's recent repayment of all misappropriated funds.</p> <p>The team considers that the risks to the global public good that is the biodiversity of Madagascar should the additional financing not proceed – including large scale and irreversible loss of biodiversity, and the reputational risks to the Bank are unacceptable and significantly outweigh the risks associated with the project.</p> |
|--|--|---|

Annex 3: Project Background, Rationale & Detailed Description of Project Activities

1. Madagascar's Biodiversity

77. *Madagascar's biodiversity: a global public good that is linked to national economic development.* Due to its biodiversity-rich nature, the island nation of Madagascar is often referred to as a 'living laboratory' or a 'land that time forgot'¹³. Approximately 95 percent of mammal and amphibian species, 92 percent of reptiles, 44 percent of birds, 74 percent of butterflies and more than 90 percent of plants occur nowhere else. New species, including mammals, amphibians, reptiles, fish and birds, are regularly discovered and large numbers of species, especially plants and invertebrates, are yet to be described.

78. The extraordinary number of species and the elevated levels of endemism mean that the country's forests and biodiversity represent a global public good in terms of their inherent scientific value and especially within the context of a changing climate, their role as a carbon sink. The possible loss of these environmental assets remains a global, regional, and national concern especially among scientific institutions and international civil society. Indeed, there is strong recognition that Madagascar alone cannot protect its natural heritage; the country has a long track record of hosting scientific, biodiversity-identification expeditions by some of the most reputed global conservation organizations including Conservation International, National Geographic Society, Smithsonian Institute, World Conservation Society, and the World Wildlife Fund, among others.

79. Madagascar's natural patrimony is also important at the national level and has strong links to economic development and poverty reduction. The country's natural resources provide essential ecosystem goods and services - including water supply, timber and non-forest timber products, and soil protection - to predominantly poor, rural households, with tangible, recorded economic benefits. Given this interdependence between poor people and the natural environment, protection of biodiversity and ecosystems becomes extremely important, both for income security and human welfare. The sustainable use of Madagascar's resources is thus critical for achieving sustainable development, both now and into the future.

80. However, Madagascar's unique biodiversity and habitats are under significant and growing threat. For example, while there is ongoing debate about the actual rate and extent of deforestation - with recent data indicating a loss of approximately 50 percent of the country's natural vegetation during the second half of the 20th century - there is consensus that human-induced deforestation has occurred, is occurring and will continue to occur on a large scale throughout the country unless urgent steps are taken to address root causes.

¹³ In 2003 the country's biodiversity values were detailed in a landmark 1700 page tome, 'The Natural History of Madagascar' (Goodman S & Benstead JP, eds) which has become an accepted reference for information on Madagascar's biodiversity and natural resources.

Box A3.1: Madagascar's biodiversity: a living laboratory, global public good and international responsibility

What is biodiversity?

According to the United Nations Convention on Biological Diversity (CBD), biological diversity, or simply biodiversity, means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Why is Madagascar special?

Madagascar is classified as a mega-diverse country because of the richness of its flora and fauna earning it the label "Eighth Continent" of the world. Madagascar is ranked 8 out of 17 mega-diverse countries, extraordinary for a country that covers just 0.4% of the world's surface area.

International recognition of the importance of Madagascar's biodiversity is evidenced by high levels of investments for conservation activities: despite its small size, Madagascar is ranked 5 out of 44 countries in Africa in terms of the quantum of conservation investments received, the bulk of which are provided by civil society.

Threats to biodiversity

In 2009, of the 1455 terrestrial fauna species and 364 terrestrial flora species that are on the World Conservation Union's IUCN Red List, 368 animal species or 25 percent and 221 plant species or 60 percent in Madagascar are listed as threatened.

Rapidly rising population, habitat loss and fragmentation, practice of slash and burn agriculture and civil unrest are all major factors contributing to biodiversity loss. The key to sustainable management of biodiversity is working with local communities and ensuring that biodiversity-generated benefits reach local communities while engaging them in conservation and protection activities.

Sources:

Dewar RE and Richard AF. 2007. Evolution in the hypervariable environment of Madagascar. *Proceedings of the National Academy of Sciences USA*. vol. 104, pp. 13723 – 27.

Goodman SM and Benstead JP. 2005. Updated estimates of biotic diversity and endemism for Madagascar. *Oryx*. vol. 39, pp. 73-77.

www.cbd.int

81. *Madagascar's political crisis is having adverse impacts on economic growth, biodiversity and conservation.* The protracted political crisis that began in 2008 is taking a toll on Madagascar's environmental assets both directly and indirectly. For example, the crisis has led to a near-complete breakdown in governance of natural resources from the national to the local levels. Since late 2008, significant increases in illegal logging of precious timber in protected areas in the north-east of the country have been recorded. Management agencies of these protected areas, which to date have not benefited from Bank-supported conservation activities, have been effectively powerless in the face of the large-scale and organized logging activities resulting from governance failures at local and national levels

82. Madagascar's fauna have not escaped adverse knock-on effects of the political crisis. Poaching of the radiated tortoise (*Astrochelys radiata*) listed as critically endangered on the IUCN Red List, and which is found in the south and southwest of the country, has increased with recent surveys indicating that about 1,000 turtles are being illegally collected each week. The ploughshare tortoise (*Astrochelys yniphora*), the rarest tortoise in the world and also critically endangered, is facing extinction due to pressure from the international pet trade. Currently no more than 300 individuals of this rare species exist in the wild in the Baie de Baly protected area. Monitoring also indicates that fuelwood collection in the south, and slash and burn agriculture

along the eastern corridor have increased, a direct response to lax enforcement by local authorities.

Box A3.2: Overview of Illegal Logging in Madagascar

Madagascar has been blighted by illegal logging of precious woods (rosewood, *pallisandre* and ebony¹⁴ in particular), causing irreversible ecological damage and diminishing the stock of natural resources. The issue is compounded by the constant shifts in the regulations governing the harvesting, collection and trade of precious woods. In 2002, the Malagasy Government issued a ban on the export of unfinished precious wood, and by 2006, the Inter-ministerial Order 16030/2006 prohibited the exploitation, in any form, of all precious woods throughout the country. While this ban has remained in effect to this day, the decree with which it is applied has varied considerably over the years.

One-off permissions for export of precious woods have been granted under the official justification that these authorizations are with the intent of clearing fallen trees as a result of cyclone events. While major efforts have aimed at reducing illegal logging since the 2004-2005 in the aftermath of Cyclone Gafilo, the 2009 political crisis led to a wave of unprecedented illegal logging, with most of the timber felled during a six to eight week period in February and March 2009 when the central Government was effectively non-operational.

Illegal logging continued, supported by the wave of one-off permissions for export that ensued and exacerbated by the withdrawal of conservation funding. The Inter-ministerial Order 003/2009 “exceptionally” permitted the export of precious wood for 13 listed exporters, and following the Inter-ministerial Order n°33244/2009 of 21 September 2009 permitted the export of 25 containers of precious woods in raw or semi-finished form “*under exceptional title*” for listed exporters. The permitted amount was neither based on an inventory of the beneficiaries’ existing stocks, nor was it subject to verification of the wood’s origin as previously demanded under existing law.

During the recent crisis, the illegal logging spread for the first time to protected areas in the North-East of Madagascar, namely Makira, Mananara Nord, Masoala and Marojejy, due to the presence of mature specimens of the targeted species of precious woods and the relative proximity to the country’s major ports. According to estimates, approximately 1200 containers were exported during 2009 alone, representing 25,000 m³ of timber: 20 times more than previous years. The logged timber disturbed an area of 4,000 to 10,000 ha and up to 500,000 additional trees and countless vines were also cut to make rafts to transport the timber. Additional damage was caused by logging camps, depots, tracks, and the associated hunting activities.

Following conflicting messages from the Malagasy transitional Government, publicly condemning illegal logging while issuing numerous one-off permissions for export, the Minister for Forests signed Decree 2010-141 in March 2010, prohibiting the cutting, extraction and export of rosewood and ebony. Recent enforcement efforts have been increased, and community awareness and action have also been growing.

83. Natural resource exploitation is also on the rise due to the economic slowdown that is disproportionately affecting the economic well-being of rural, natural resource dependent households. Due to the current political instability, per capita income dropped 3 – 5% in 2009, and public expenditure was reduced by US\$400 million. External aid was significantly reduced; a worrying situation given that in 2007 - 2008 it accounted for 9% of GDP whereas in 2010 it is estimated to have accounted for just 2.4% of GDP. Exports in high foreign-exchange earning sectors including fisheries, textiles, tourism and handicrafts were affected by the combined effects of national political instability and the global economic slowdown.

84. History shows the effects of the crisis are likely to be felt for many years; after the 2002 political crisis, it took six years for per capita incomes to recover to pre-crisis levels. Given that over 60 percent of Madagascar’s population lives in rural areas, and that more than 75 percent of

¹⁴ Ebony refers to species in the *Diospyros* genus, while rosewood refers to species in the *Dalbergia* genus. There are 43 species in the *Dalbergia* genus, of which 42 are endemic to Madagascar. Three species of particular interest for exportation are known as rosewood because of their deep red color – *D. baronii*, *D. louveli* and *D. maritime*, while *D. madagascarensis* is known as *pallisandre* as it lacks the deep red color of the other species.

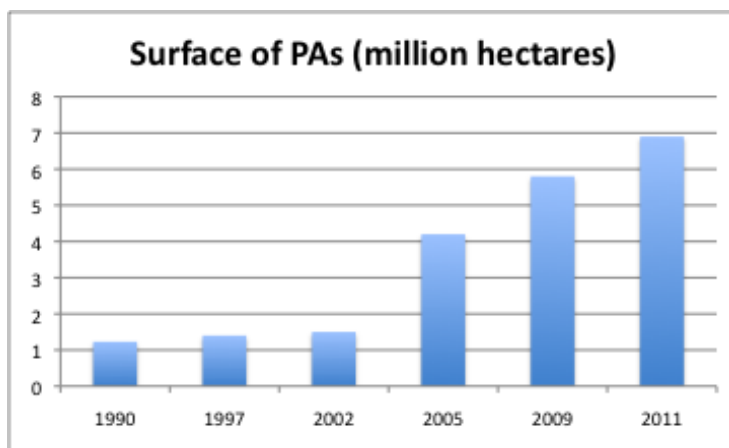
the population is dependent on natural resources for livelihoods, such adverse effects are likely to be particularly felt by those very communities who rely on natural resources for their livelihoods. A drop in employment opportunities related to both poor economic performance and the combined effects of the economic and financial crises are likely to exacerbate pressures on natural resources as poor, rural households look for alternative ways to meet their needs.

2. Madagascar’s Protected Area Network

85. The protected area network in Madagascar, which is known as the *Systeme des Aires Protégées de Madagascar* (SAPM), covers approximately 6.9 million hectares¹⁵ including 2.4 million hectares of protected areas managed by Madagascar National Parks (formerly ANGAP) and 4.5 million hectares of new protected areas (NAPs) that are being developed predominantly by NGOs (including CI, WCS and WWF) on behalf of the Ministry of Environment and Forests (MEF).

86. The expansion of the protected area network has been rapid and impressive (refer Figure A3.1). In 2003, there were 46 protected areas managed by Madagascar National Parks that covered 2.9 percent of the country’s surface; there are currently 144 protected areas covering 11.8 percent of the national territory. Comparable network coverage statistics in countries with similar levels of socio-economic development are very few in number. Triggered by the Convention on Biodiversity Conference of Parties (CBD COP) in Nagoya in October 2010, informal discussions have recently commenced amongst the Government and NGOs as to the feasibility of increasing coverage of the network to cover 16-18 percent of the country’s surface.

Figure A3.1 Expansion of Madagascar’s PA Network (million hectares)



87. The driving force behind this expansion was the 2003 Presidential Declaration, known as the “Durban Vision” to triple Madagascar’s protected area coverage to 6 million hectares, or ten percent of the country’s land surface. Political and financial support for the realization of this vision has been provided by a number of international donors¹⁶, and the Bank has played a key

¹⁵ These figures reflect the most recent official statistics for the protected area network surface and are taken from Decree No. 52005/2010 dated December 20, 2010.

¹⁶ Including the French, Swiss and German governments, the EC, UNDP, various international NGOs including Conservation International, the private sector including Dell and Air France, and private foundations including the Moore and MacArthur Foundations, through direct financing, financing of NGOs, and contributions to the Madagascar Foundation for Protected Areas and Biodiversity (the Foundation)

role in this process through the three phases of the Environment Program Support Project, which began in 1990.

Box A3.3: Government Policy on Protected Areas

The Malagasy government began integrating environmental concerns within its policies in the early 1990s, and has demonstrated a strong political will to tackle issues pertaining to the protection of biodiversity and natural resources over the last decade. The National Environmental Action Plan (NEAP) initially included the creation of a system of protected area covering 2.4 million hectares. In September 2003, following the *World Congress on Protected Areas* in Durban, the Government of Madagascar made a bold commitment to triple this surface area, to cover 6 million hectares or 10 percent of the national territory. This became known as the “Durban Vision”, and initiated the elaboration of a new legal framework and action plan for the creation of a network of New Protected Areas (NAPs), proposed to be managed by NGOs and other agencies under the delegation of the Government, to complement the traditional protected areas managed by Madagascar National Parks.

This commitment to an accelerated creation of protected areas was integrated into the Madagascar National Plan (MAP), the 2007-2012 Poverty Reduction Strategy Paper (PRSP). This action plan is based on a vision of sustainable development, the protection of the environment being one of the eight major commitments for the country, with the conservation of biodiversity as a specific objective.

While the political crisis has impeded project implementation and granting of permanent protection status to a number of protected areas, the Durban Vision is still maintained and applied, and the MAP has remained the reference document within the Ministry of the Environment and Forests. Despite the crisis, the Ministry and government agencies have continued implementing the action plan and maintained the objective of securing 10 percent of the Malagasy territory as Protected Areas.

A recent inter-ministerial decree (No. 52005/2010 dated 20 December, 2010) continues protection of 2.4 million hectares of Madagascar National Parks managed protected areas and 4.5 million hectares of NAPs (both with and without temporary protection status).

88. Despite the political turmoil, the current *de-facto* Government has not renounced the Durban Vision. It has demonstrated its commitment to continuation of the network’s protection by issuing an inter-ministerial decree in December 2010¹⁷ to respect protected area boundaries; however, it has not issued any new permanent protection permits for protected areas since seizing power in 2009.

3. The Environment Program (1990 – 2011)

89. *Background to the Madagascar Environment Program.* Since 1990, the Bank together with USAID, Swiss Development Cooperation, and GEF, and more recently UNDP and the German Agency for International Cooperation (GIZ (formerly GTZ) and KfW) and Agence Française de Développement (AFD), have worked with the three large international NGOs present in Madagascar (CI, WCS and WWF) and others such as Durrell Fondation and Birdlife International to support the Government in the implementation of the National Environmental Action Plan (NEAP). The NEAP, which had as its overall objective the conservation of natural resources for sustainable economic growth and improved quality of life, was implemented in the form of a three-phase Environment Program with a total budget of approximately US\$400 million. The first phase of the Environment Program (from 1990 to 1995) created institutions and implemented pilot activities, including the first protected areas to be established under the NEAP. The second phase (from 1996 to 2004) financed on-the-ground activities at a larger scale and sought to integrate environmental issues into sector and macro-economic policies. The third phase (from 2005 to 2011) continued the work of the two previous phases and aimed to

¹⁷ Interministerial Decree No. 52005/2010 dated December 2010

consolidate and ensure the sustainability of these earlier activities, while also commencing activities in marine protected areas.

90. The combined results of the three phases of the Environment Program are impressive and are due to a combination of a clearly expressed political will by the former Government, and strong and sustained financial support from donors. The most striking results are the creation of

2.4 million hectares of protected areas managed by Madagascar National Parks, and 4.5 million hectares of new protected area forestry corridors being managed predominantly by NGOs on behalf of the Government. Institutions for the management, financial control and monitoring of environment related activities have been created including: a protected area manager (Madagascar National Parks), an environmental protection agency (*Office National pour l'Environnement (ONE)*), two

Overview of EP Achievements

- Protection of a global public good (5 million ha with permanent or temporary protection status, 2 million underway)
- Contribution to nature-based tourism (\$500 million industry)
- Implementation of carbon finance programs with private sector (Air France, Dell, and Mitsubishi): 40-45 M tons saved
- Creation of mechanisms for including rural, local communities (sustainable management of protected areas and alternative livelihoods)

foundations – one for protected areas (the Foundation) and the other for sustainable natural resource management by local communities (Tany Meva), and a forest monitoring unit. The rate of deforestation was reduced by 75 percent in 20 years (from just over 2 percent at the beginning of the period to 0.53 percent in 2005 - the year for which the most recent national level data is available – refer Figure A3.2), and there is systematic application of safeguard measures (through the MECIE – Madagascar’s environmental assessment legal framework¹⁸) for both public and private investments, particularly in sensitive zones. Community-based natural resource management contracts in mangrove, reef, and forest ecosystems, as well as forest zoning plans have commenced and have had significant benefits in certain regions. Environmental monitoring and reporting systems have been created to measure degradation and the results of conservation activities, and Madagascar has ratified the majority of international environmental conventions.

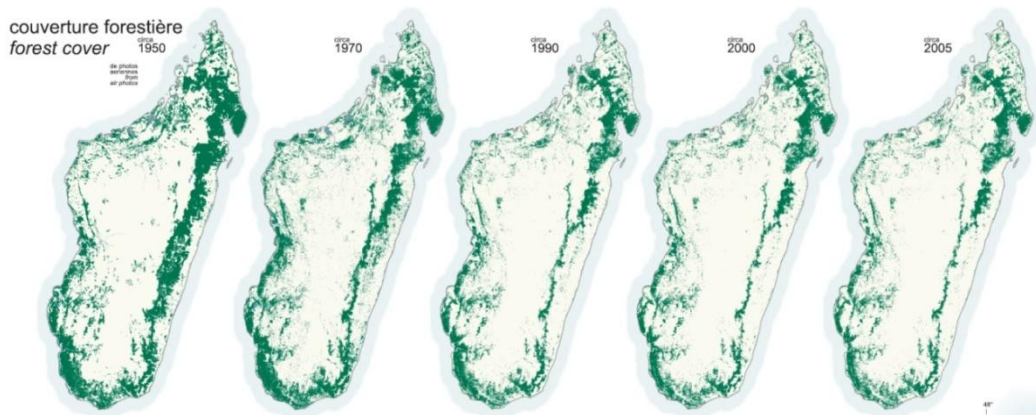


Figure A3.2: Change in forest cover 1950 - 2005

Source: Conservational International, 2008

¹⁸ Décret N° 2004-167 relatif à la mise en compatibilité des investissements avec l’environnement

91. *Third Environmental Support Program Project (EP3)*. The Bank's contribution to the Environment Program has been through a series of Environmental Support Program projects. The Madagascar Third Environmental Program Support Project (EP3) was the third and final of these projects. The EP3 was developed in the early 2000s before the announcement of the Durban Vision by the Government. However, it has contributed substantially to the practical realization of the Durban Vision through support to the expansion and financing of the network. Over 860,000 ha of protected areas (five new protected areas and six extensions) were created under EP3 and the project currently provides support to the management of 1.87 million hectares of protected areas, representing nearly one third of the network including 60 percent of national parks managed by Madagascar National Parks (28 parks covering 1.6 million hectares) and 10 percent of forestry corridors, (the forestry corridor Fandriana-Vondrozo covering 0.28 million hectares). Safeguards measures for 26,000 households are being implemented.

92. The EP3 has also supported the initiation of sustainable financing sources for the network, notably through creation of an endowment to the Foundation, support to ecotourism development and facilitation of the entry of Madagascar into the carbon market.

93. **4. Project Description** The additional financing will support activities in 33 protected areas (PAs) including 30 national parks and three protected forestry corridors (refer Table A3.2; Map A3.1).

Project Component A: Protected Area and Landscape Management (US\$23.2 million, of which IDA US\$16.0 million)

Sub-Component A.1: Protected Area Surveillance (US\$ 17.5 million, of which IDA US\$11.7 million)

This sub-component will strengthen the biodiversity conservation of 33 protected areas (30 MNP managed PAs (1.7 million ha) and 3 corridors (known also as *nouvelles aires protégées* or NAPs) (1.0 million ha) by contributing to the recurrent costs of park surveillance and management.

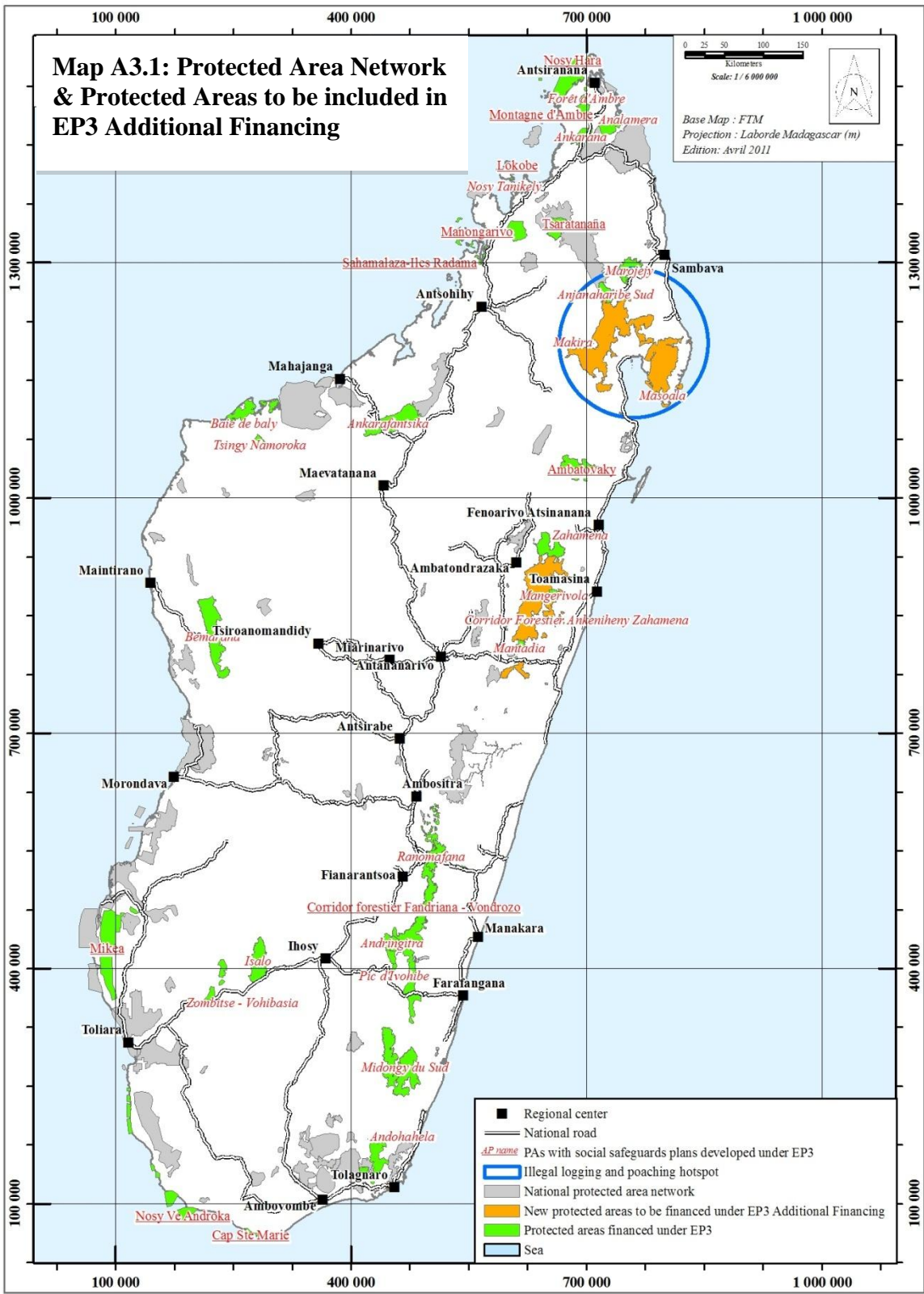
Minimum and decreasing recurrent costs for park management have been identified with the protected area managers, as well as perennial funding sources such as park revenues, conservation trust fund contributions, and additional fund raising. The project will provide gap financing for the recurrent costs on a decreasing basis, starting at about 85% in Year 1 and ending at about 60% in Year 3. Gap funding has been identified at park level, and the Directorate-General of MNP will receive overhead funding of 15% in order to assure its network management functions.

Recurrent surveillance costs will be used to patrol protected areas and finance the monitoring of the state of ecosystem health and priority species, as well as the yearly maintenance of conservation and ecotourism infrastructure and equipment. In MNP managed parks this subcomponent would involve updating and strengthening surveillance plans for the 30 national parks to document site specific patrol regimes including description of routine foot patrols, community surveillance activities, required equipment purchases and maintenance, and liaison and awareness raising activities with local communities.

Table A3.2: Protected Areas supported by Additional Financing

(*Indicates a protected area that was not included in EP3 but is included in the additional financing)

| Protected Area Name | Area (ha) | Protected Area Type |
|--|------------------|----------------------------|
| Ambatovaky | 78,139 | National Park |
| Ambohitantely | 5,600 | National Park |
| Analamerana | 34,700 | National Park |
| Andohahela | 76,020 | National Park |
| Ankarana | 18,225 | National Park |
| Baie de Baly | 79,160 | National Park |
| Namoroka | | |
| Bemaraha IUCN Category II | | National Park |
| Bemaraha IUCN Category IV | 156,710 | National Park |
| Cap Sainte Marie | 3,610 | National Park |
| <i>Corridor Ankeniheny – Zahamena (CAZ)*</i> | <i>371,000</i> | <i>Forestry corridor</i> |
| Corridor forestier de Fandriana Vondrozo (COFAV) | 290,281 | Forestry corridor |
| Forêt de Mikea | 184,630 | National Park |
| Isalo | 81,540 | National Park |
| Lokobe | 1,042 | National Park |
| <i>Makira*</i> | <i>372,470</i> | <i>Forestry corridor</i> |
| Mangerivola | 11,900 | National Park |
| Manongarivo | 113,822 | National Park |
| Tsaratanana | | National Park |
| Mantadia | 16,290 | National Park |
| Analamazaotra | | National Park |
| <i>Masoala*</i> | <i>230,000</i> | <i>National Park</i> |
| <i>Nosy Manga Be*</i> | | <i>National Park</i> |
| Midongy du Sud | 192,198 | National Park |
| Montagne d'Ambre | 30,812 | National Park |
| Foret d'Ambre | | National Park |
| Nosy Hara | 125,471 | National Park |
| Nosy Ve | 92,080 | National Park |
| Ranomafana | 41,601 | National Park |
| Sahamalaza - Iles Radama | 26,035 | National Park |
| Zahamena IUCN Category I | | National Park |
| Zahamena IUCN Category II | 63,898 | National Park |
| Zombitse Vohibasia | 36,803 | National Park |
| Total | 2,735,037 | - |



Procedures would be strengthened for reporting of identified infractions, and liaison and mixed patrols with Forest Administration officers. The additional financing would support the costs of foot patrols by MNP rangers, including salaries, training requirements, and community liaison activities. The additional financing would also finance the costs of bi-annual aerial surveillance of all 33 protected areas.

In the three protected corridors, the additional financing would co-finance the recurrent costs of the management strategy identified by the delegate park manager, usually an NGO, according to the terms of references developed by the Directorate General of Forests.

Sub-Component A.2 Conservation Infrastructure (US\$2.1 million, of which IDA US\$1.9 million)

This sub-component would initially involve the updating of technical manuals for the construction and maintenance of conservation infrastructure. Based on a review of the specific needs of each protected area the additional financing would support construction and periodic maintenance of required conservation infrastructure including guard stations, control barriers, transect creation, boundary markers and firebreaks. Where possible, and after adequate training, maintenance contracts would be established with local community park committees (CLP), thus generating additional revenue for these groups. The investment in conservation infrastructure will be executed during the first two years of the additional financing. The highest investment needs will be in parks that were recently established but not yet equipped, in some established parks where infrastructure has become degraded, as well as in some parks with the highest threats to biodiversity. 40% of the investments are allocated to the corridors and 60% to the MNP managed parks.

Sub-Component A.3 Conservation and Management Equipment (IDA US\$1.1 million)

The additional financing will support the costs for renewal of conservation and management equipment of the 30 MNP managed national parks. Most of these national parks were equipped at the beginning of EP3 (2004-2005). Today their vehicles and office / computer equipment are in a poor state and need replacement. The four recently established MNP national parks (Sahamalaza, Mikea, Nosy Hara, and Nosy Ve) were not adequately equipped during EP3 due to time and funding constraints. Along with the Lokobe national park, which has undergone an extension and status change to an ecotourism priority park, these five national parks will consume 40% of the equipment costs, while the 25 other national parks will share the remaining 60%. In the past, due to multiple constraints in funding and financial management, MNP had not been able to adequately address the need to cover depreciation costs of equipment. The additional financing will fund equipment purchase cost on an exceptional basis and on the condition that MNP puts in place an adequate scheme for covering the depreciation costs of equipment and investment from the first year on. It is estimated that the funded equipment requires a cost of depreciation of 25% pa, while the conservation and ecotourism infrastructure of MNP would require 5% pa. The resulting cost of about 275 - 325,000 USD per year is supported by MNP from its own Park revenues.

Sub-Component A.4 Landscape Management (IDA US\$0.5 million)

The additional financing will support the following management activities in the Mamabay (Masoala, Makira, Baie d'Antongil) pilot landscape:

Activity A.4.1 Development of / support to database creation and mapping of ecosystem and natural resource baselines

In the Mamabay pilot landscape creation of a database and mapping of ecosystem and natural resource baselines has commenced and the additional financing would provide additional technical and financing support, including training of staff, consultancies, purchase of equipment and software.

Activity A.4.2 Support existing regional stakeholder platforms and tools for land use and natural resource planning and monitoring

The Mamabay pilot landscape has established a landscape wide stakeholder platform to guide strategic activities. The additional financing would support this platform and increase the participation of district and community based representatives in the platform's activities. Important land use and natural resource planning tools, such as Regional Development Plans, Regional Land Use Plans, and Regional Forest Zoning Plans (EP3 funded) would be updated as part of the additional financing activities.

Activity A.4.3 Strengthen capacity in ecological monitoring and monitoring of illegal natural resources exploitation

Civil society natural resource monitoring groups ("watchdogs") will be formed comprising representatives of NGOs, grassroots community organizations, PA co-management groups, religious groups, anti-corruption groups and other relevant stakeholders. These groups will be trained in ecological monitoring techniques and provided with equipment to allow them to carry out patrolling and monitoring activities based on annual flyovers. A simple monitoring and reporting framework will be developed together with a public website to facilitate transmission, transparency and dissemination of monitoring results to a wide audience.

Activity A.4.4 Evaluation of climate change effects on forest over and protected areas

Initial modeling carried out in 2010 with the involvement of WWF and the Wallace Initiative (a joint initiative between WWF US, James Cook University, Tyndall Climate Change Centre and other NGOs and universities) indicated that protected areas and forest areas along the eastern coast of Madagascar are likely to be more climate stable than other areas and species losses due to climate change to 2050 are less than in the south or west of the country. The additional financing will support a refinement of this modeling work using more detailed datasets and up to date climate models to provide clarification on the likely effects of climate change on forest cover and species persistence in protected areas. This work would include an evaluation of the climate change effects on both the terrestrial and marine environments of the landscape. Recommendations for protected area network and landscape management will be developed and training provided for national climate scientists and ecologists to enable them to carry out monitoring and updates of the analyses.

Sub-Component A.5 Support to institutional reform of MNP (US\$2.1 million of which IDA US\$0.8 million)

This sub-component would support MNP to engage in a reform process, as MNP's current headquarters and regional offices are oversized and insufficiently efficient. The sub-component would fund consultants' services to evaluate the optimum organization size and functions and to propose an action plan for organizational reform. This study would build on the technical reform process currently being co-funded by KFW. The subcomponent will fund the implementation of

the action plan, including severance packages and accompanying measures. Any required severance packages will be financed by MNP. Finally, as the reform process will need sufficient preparation and time, the sub-component will contribute \$US 0.6 million to budget deficits of MNP in 2012 and 2013. It is expected that after the reforms and by 2014, MNP's budget will be balanced and the organization streamlined.

Project Component B: Local community support and development (IDA: US\$ 14.0 million)

Sub-Component B.1 Social safeguards implementation and monitoring (IDA: US\$6.0 million)

Activity B.1.1 Monitoring of social safeguards activities for PAs created or expanded under EP3 and reforestation activities (IDA: US\$0.2 million)

This activity would involve monitoring and an external audit of the 11 social safeguards plans and the indigenous peoples plan for Mikea protected area that were prepared and implemented under EP3. Continuous monitoring by the protected area managers will focus on the impacts of the compensation sub-projects for the project affected households (PAP). Each concerned protected area will establish a database, allowing for comparison of the losses projected in the social safeguards plans, with the real revenues from sub-projects. The continuous monitoring will constitute the basis for an external audit by consultants, whose results will be used to inform the development of technical standards identified in Activity B.1.4 and the necessary longer term community support and development activities required to enhance the sustainability of safeguards measures as envisaged in Activity B.2.3.

Activity B.1.2 Social evaluations for 19 mature protected areas (IDA: US\$3.1 million)

Within the group of 33 protected areas that would be included in the additional financing, there are 19 mature MNP managed protected areas that were established before the Bank's requirements for social safeguards under EP3 came into operation. For these protected areas the additional financing would support a retrospective social evaluation to assess what, if any, social mitigation compensation measures were put in place at the time of protected area creation, and what kind of conflicts and diverging interests still persist between the Park authorities and the neighboring communities. The evaluation will identify the need to develop and implement conflict resolution or mitigation measures with local communities. The retrospective social evaluation will be based on the Process Framework developed for EP3. The measures developed would focus on conflict mitigation and future sustainable park co-management, and thus improving protected area - community relations. The scope of such measures would link to the livelihoods and community development activities proposed under Sub-component B.2.

Activity B.1.3 Social safeguard plans for Makira and CAZ corridors (IDA: US\$2.6 million)

The Makira and CAZ forestry corridors have been recently established, but have not to date been funded by the Bank. As these forestry corridors will be financed under the additional financing, they will need to comply with the Bank social safeguards requirements. Therefore, a social safeguards plan would be developed for each forestry corridor in line with Bank requirements, building on the preliminary work already undertaken by the implementing NGOs. The plan would be implemented during the additional financing for each forestry corridor in close collaboration with delegate park managers Wildlife Conservation Society (WCS) for Makira and Conservation International for CAZ. The social safeguard plan for CAZ corridor would include an environmental and social audit of reforestation activities completed in the CAZ protected area

under EP3 (known as the TAMS project), and measures carried out will help redress negative impacts.

Activity B.1.4 Development of technical standards for social safeguard development and implementation (IDA: US\$0.1 million)

The Bank led social safeguards discussion during the last three years of EP3 has clearly raised awareness on the part of conservation stakeholders in Madagascar concerning the need for social mitigation of conservation activities. The additional financing would support the development of technical standards on social safeguards activities for the Madagascar protected area network. Such standards would aim to assist the Directorate of the Protected Area Network (DSAP) to strengthen the obligations of the NGOs involved in the creation of forestry corridors and delegated managers to consider safeguards issues in the protected area creation process. Given the large number of stakeholders involved in protected area creation and management, the standards would be developed through a participatory and collaborative process to maximize stakeholder ownership of outcomes.

Sub-Component B.2 Community development and involvement in PA management (IDA: US\$ 8.0 million)

Activity B.2.1 Support to Community Park Committees (IDA: US\$ 4.1 million)

Improved community involvement in protected area management is clearly needed in most of the supported protected areas in order to sustain conservation outcomes and transfer benefits to local populations. This activity aims to improve the involvement of local communities in PA management and their associated economic and social development. Around all of the 30 MNP managed PAs supported by the additional financing, an adequate number of local community park committees (CLP - *comité local du parc*) will be established, or where they already exist, strengthened. Through the committees, the PA would support the local communities in co-surveillance activities as well as in local development activities. Around the 30 PA, an estimated 760 such committees already exist, and another 140 committees still need to be created. For each protected area a community involvement strategy will be developed that outlines the means of increasing the role of communities in co-managing the PA. The strategy, which will be site specific and take into account the local characteristics and community/PA relations, will be developed in close consultation with affected communities. It will address the roles and shared responsibilities in decision-making, co-surveillance and maintenance activities.

In order to strengthen involvement in park surveillance, the community park committee will be adequately equipped and supported to carry out regular patrols of local sectors and report infractions and poaching to the Park rangers or forest administration staff. Members of the committee would be trained and certified by Park managers. Compensation for their surveillance activities would be allowed on a task basis and include a personal fee as well as contribution to a local social fund, managed by the committee. An estimated 200,000 patrol days are estimated to be required in the 30 PA over 3 years, representing a substantial revenue to committee members and community projects. The community park committees would also receive direct support from Park managers to organize awareness raising activities with local communities, which further strengthen biodiversity conservation.

Around MNP managed PAs, the committees would also represent the communities in the field of small income generation projects. MNP, with help from specialized service providers, would

develop guidelines to prioritize, fund and implement such projects. Conventions would point out the direct link between the additional financing benefits and the community involvement in park management and conservation. The additional financing plans the implementation of about 400 small community projects, including restoration activities within protected areas, from Year 2 onwards. In PAs with substantial ecotourism revenues, 50% of the park fees are redistributed to the local communities via the PAs' support committees (COSAP) (see Activity B.2.2), which would provide up to 50% co-funding of the planned community projects.

Activity B.2.2 Support to Park Support Committees (IDA: US\$0.5 million)

In each MNP managed PA, representatives of local communities, mayors, local administration staffs, NGOs are regrouped in a single park support committee (known as a COSAP). The role of park support committee is to advise MNP in the field of management decisions and annual work plans, to liaise with the administration and the local population, and to coordinate the implementation of the small projects funded with the 50% of the park entry fees.

The additional financing would strengthen the role and the capacities of 30 park support committees, which could serve as a federating body of the numerous community park committees. The park support committee would be strongly involved in the coordination of the local development projects of the community park committees, co-funded by the additional financing and 50% contribution from visitor entry fees. This would include validation of project proposals of the community park committees, as well as monitoring and evaluation of project implementation and impact. The project will cover the costs of consultant services in order to adequately control and supervise the 400 sub-projects in collaboration with the COSAP and MNP. Furthermore, the park support committee would organize an annual meeting of all community park committees around the PA, in order to exchange best practices and share advice on threats and solutions.

Activity B.2.3 Support to Community Forest Management Groups (IDA: US\$3.3 million)

According to the laws governing transfer of natural resource management to local communities in Madagascar, community forest management can legally be transferred from the forest administration to community forestry management groups (known locally as VOI or COBA). Management transfer of primary forests neighboring PAs is an essential tool for sustainable conservation and is known as the 'green belt' approach. It provides protected areas with buffer zones and also provides communities with legally accessible forest products for local needs, according to validated management plans. Management transfers are a particularly important tool to better involve communities in forestry corridor management. Therefore, a management transfer strategy will be developed for the three new protected forestry corridors supported by the additional financing (CAZ, COFAV, Makira), according to their local situation. Important factors like forestry corridor connectivity, protection belt functions, securing threatened areas and environmental services will be reflected in the strategy.

The additional financing will fund the implementation of the establishment of 75 new management transfer contracts, as well as management evaluation and contract renewal, capacity building and strengthening and equipment for 100 existing community forest management groups. The management transfers and the capacity building will be implemented by NGOs or specialized service providers. The management transfer process includes stages such as awareness raising, establishment of forest management groups, forest mapping and inventories, management plan development, transfer contracts and training. Capacity building is strongly

needed in the fields of administration and organization, financial management, and surveillance. The project will also support the development of natural resource based income generation projects with these groups (equivalent to around 7,500 households). Those groups that market forest products, will need to be equipped with adequate material and procedures. About 1/3 of the transfers will be implemented around MNP PA and 2/3 around the 3 protected corridors.

As capacity building for community resource management takes time, the implementation of this sub-component will include periodical visits and support for communities during project phase, as well as a final ex-post evaluation of the technical and social impacts of the implementation.

Project Component C: Sustainable financing mechanisms for protected areas and landscapes (IDA: US\$8.9 million; GEF: US\$10.0 million)

Sub-Component C.1 Conservation Trust Fund Endowment and Technical Support (IDA: US\$0.7 million; GEF: US\$10.0 million)¹⁹

Activity C.1.1 Contribution of US\$10 million from GEF4 to the Foundation's endowment capital (GEF: US\$10 million)

GEF4 will contribute US\$10 million to the endowment capital of the Foundation, which will be an important milestone towards achieving the Foundation's self-imposed target of securing at least US\$50 million by 2012. The contribution will be disbursed in the first semester of additional financing. This will assure a proper placement and the production of interest revenues from the beginning of 2013 onwards. The revenues will then contribute to the sustainable co-financing of recurrent protected area management costs.

With the additional financing, IDA-GEF will become the largest single contributor to the Foundation (US\$7.5 million from IDA during EP3, US\$10 million additional capital from GEF4). IDA and GEF are committed to the initial goal of the Foundation, which is to co-finance the recurrent management costs of PAs in Madagascar in a perennial way. In addition, IDA and GEF seek to secure perennial co-funding to the 30 protected areas supported during the environmental program.

The revenues from capital placement of the Foundation are actually estimated at 5.5% pa, of which 4.5% would be available for direct PA financing. The available revenue would increase from US\$ 330,000 in 2012 (revenues from US\$7.5 million IDA contribution), to US\$ 560'000 in 2013 (adding 6 month revenues from US\$10 million GF4 capital contribution), and US\$ 760,000 in 2014 (revenues from US\$ 17.5 million total capital contribution). The 30 IDA-GEF supported PAs are earmarked as potential beneficiaries. However, the Foundation chose 10 co-financed PA among the 30 according its own priority list based on biodiversity and threat criteria. In addition to the earmarking of the PAs, a positive list of eligible recurrent management costs will be established under Activity C.1.2. According to a preliminary funding projection of the Foundation, they will increase the co-financing using revenues from the combined IDA/GEF contribution from 4 PAs (484,000 ha) in 2012, to 8 PAs (813,000 ha) in 2013 and 10 PAs (1,050,000 ha) in 2014 (Masoala, Andoahela, Tsaratanana, Ankarana, Zahamena, Ambatovaky, Ranomafana, Midongy Sud, Baie de Baly, Bemaraha). To these 10 PAs, the Foundation would contribute on average 40 percent of their minimum recurrent costs.

¹⁹ Refer also Appendix 1 of this annex.

Activity C.1.2 Capacity support for Conservation Trust Fund (IDA: US\$0.7 million)

The Foundation is growing rapidly and is increasingly solicited by various donors to manage endowment capital, as well as sinking funds. In order to assure high level efficiency in managing the IDA-GEF endowment, the additional financing would finance a range of capacity building activities. The additional financing will support activities for secured, high performance and transparent capital placement, thus assuring that capital value is conserved and that reasonable revenues are generated for protected area management. This includes international technical assistance to monitor placements and evaluate funds managers, national technical assistance to optimize national placements and investments, and training for the investment committee of the Foundation's Board, in order to properly supervise placement strategies and performances.

The additional financing will support activities to strengthen implementation and monitoring of activities funded by IDA/GEF generated revenues. Detailed utilization guidelines and procedures concerning the use of IDA/GEF generated revenues will be developed by the Foundation, including issues such as earmarking, eligible recurrent costs, the eligibility and priority criteria to choose protected areas that are suitable for financing, as well as requirements for contracting protected area management, fiduciary management, safeguard aspects and monitoring. The additional financing will also support adequate capacity building measures for the Foundation to implement these guidelines and its mandates including fiduciary and safeguard requirements. The additional financing will support costs of consultants and assistance for technical, financial and safeguards monitoring, missions to beneficiary protected area, external audits, and equipment.

The additional financing will support activities to strengthen the Foundation's management capacities. The Foundation still has a very limited staff and the increasing responsibilities call for a general strengthening of the Foundation's management capacities. The additional financing would support a consultant or technical assistance for the implementation of the Integrated Management System (GIS), purchase of administrative and office material and equipment, as well as costs related to the extension of the Foundation's office.

Finally, the additional financing will support the development of options to secure additional funds following the additional financing possibly through a further endowment request from GEF5 under the biodiversity focal area.

Sub-Component C.2 Support to ecotourism development (IDA: US\$ 5.4 million)

Activity C.2.1 MNP park ecotourism infrastructure (IDA: US\$0.9 million)

The project will support activities to improve the ecotourism infrastructure in selected MNP PAs, in order to receive the increasing number of visitors and to generate more ecotourism income. MNP has initially identified 8 PAs with a confirmed existing high potential for ecotourism development and 8 PAs having an emerging ecotourism potential that need to be developed. The project's ecotourism support activities will focus on these 16 PAs, and include the updating of their Ecotourism Development Business Plans that would detail soft and hard investment needs, roles of protected area managers and private investors (see Activity C.2.2), measures to optimize generation and use of ecotourism revenues and create sustainable financing sources, and clarify the improvements needed on the legal framework. The overall aim would be to reduce future reliance on external financing sources.

The additional financing would support upgrading or construction of reception and interpretation centers, access roads, trekking circuits, camping sites, and basic accommodation shelters. Where possible and after adequate training, maintenance contracts with community park committees could be established and financed. Training would be provided to Madagascar National Parks or Tourist Guide Associations, and protected areas would be assisted to develop and distribute promotional and marketing materials.

Activity C.2.2 Private Sector investments (IDA: US\$3.3 million)

Important progress has been achieved at the end of EP3 in the fields of ecotourism concessions and ecotourism policy. MNP, USAID and International Finance Cooperation (IFC) have worked on ecotourism concessions for international investors in MNP parks, and an Ecotourism Concession Policy Letter has been endorsed by the Ministry. However, the political crisis in 2009 stopped the process.

Eco-tourism still presents an opportunity to integrate the establishment of protected areas into an economic development strategy, fostering economic growth, local development and environmental preservation. The objective of this component is to leverage the economic potential of Madagascar's protected areas through the design and implementation of pilot private-public partnership (PPP) approaches, involving a mix of concession approaches with international high-end eco-tourism investors, national tour operators and hotel owners and community-based associations. Currently such approaches have been limited by a constraining enabling environment and by the lack of quality accommodation in and around protected areas. Against this background, this activity will support: (i) the development of an appropriate legal, regulatory, contractual and institutional framework for eco-tourism PPPs; (ii) investment facilitation activities in about 8 selected pilot projects (including site identification, call for national investment proposals, technical and financial evaluations, and infrastructure development including preparation of site access, electricity and water supply) ; iii) Resume processing of 3 high-end concessions for international investors (including preparation of technical and financial documentation, investment calls, and international marketing and promotion); iv) capacity building and monitoring, including training of local staff, local public consultations, follow-up of environmental impact evaluations, as well as monitoring of concessions and impact on local economy. The expected impact includes local community development (job creation, support to small businesses, infrastructure development), as well as the sustainable mobilization of funding for MNP.

Activity C.2.3 Community based eco-tourism (IDA: US\$1.2 million)

Very few protected areas have community based ecotourism facilities today. However, there is an increasing demand in equitable tourism worldwide, addressing a different market segment than the high end eco-lodges. Furthermore, community based ecotourism provides local communities with additional income, creates jobs and mitigates potential conflicts between villagers and hotels. Therefore, based on the Business Plans described above, the additional financing would provide support to the development of about 15 community based ecotourism projects in the selected protected areas, which could be 50%/50% around MNP PA and corridors. This would include a participatory evaluation of optimal sites around each PA. Criteria would be tourist access, site attraction, and motivation of the local community and nearby park services.

The additional financing, with the help of specialized consultants, would then support the communities in the establishment and reinforcement of the community based management organization (e.g. womens' groups), the participatory establishment of work plans, training of participants, subsidize infrastructure construction and equipment, the financial business plan, the creation of local ecotourism circuits, and the marketing and promotion of the community lodges with a special website. Eventually, joint ventures of communities and local private investors can equally be considered.

The community ecotourism facility could initially remain under park manager guardianship for three years, with the community organization having a management contract. After 3 years of adequate management, park managers and the local authorities, including park support committees and commune authorities, would carry out an evaluation and permanently transfer ownership of the facility to the community organization.

Sub-Component C.3 Preparation for environmental services markets (IDA: US\$2.8 million)

Activity C.3.1 Support to preparation for entry into carbon finance market (IDA: US\$2.2 million)

The additional financing would support a suite of activities designed to enhance the readiness of Madagascar to access the international carbon market. The current institutional, legal and fiduciary framework for the management of carbon-generated revenues is in the early stages of development and has had limited input from stakeholders outside the national Government. The development and adoption of a robust national framework that is based on international best practice will be essential to ensure international credibility and attract investors carbon revenue related transactions. The additional financing would support technical studies into historic and future causes and trends in deforestation and degradation as well the issue of carbon governance and sharing of associated revenues. The project would also fund methodological studies and tests for the elaboration of the national baseline scenario. Field based testing of different methodologies (e.g. Lidar, ClassLite) for development of a national carbon stock baseline will be carried out and the preferred methodology implemented in a pilot protected areas that are being supported by the additional financing (CAZ, COFAV and Makira) to identify carbon stock baselines and aid in the identification of the future economic benefits for these protected areas. Finally, the project will support the development of an adequate MRV-System (Measurement, Reporting, Verification) and its application in pilot reference sites. A strategic environmental and social analysis of the outcomes of the technical and methodological studies will be carried out as part of this activity.

Activity C.3.2 Wealth Accounting and Valuation of Ecosystem Services (WAVES) Global Partnership (IDA: US\$0.6 million)

Madagascar has been selected as a pilot country for the Wealth Accounting and Valuation of Ecosystem Services (WAVES) Global Partnership and initial activities commenced in February 2011. The overall objective of the WAVES Global Partnership is to promote sustainable development worldwide through the implementation of wealth accounting that focuses on the value of natural capital. The World Bank will lead this initiative in a partnership with United Nations Environment Program (UNEP), interested developing and developed countries, NGOs and other organizations. The additional financing will collaborate with the Partnership's activities in Madagascar, and will provide co-financing to the WAVES activities in-country. Specific activities that will be carried out as part of the additional financing include collection

and evaluation of existing data on ecosystem services provided by protected areas, including tourism and water supply; development and application of methodologies to improve valuation of such ecosystem services; evaluation of the capacity of protected area ecosystem services to contribute to sustainable financing of the protected area network; inclusion of ecosystem service and protected area values into the system of national accounts as part of a process to develop ‘green national accounts’; and identification of potential policy entry points for improved consideration of protected area ecosystem services and values in decision making. Capacity building activities with stakeholders in the environment, statistical and economic sectors will be carried out as part of the partnership with support from the additional financing.

Component D: Management, implementation, monitoring and evaluation of the implementation (US\$3.0 million)

This component will continue financing project management, and monitoring and evaluation of the additional financing activities. It will also support the implementation of the measures to strengthen the Project Coordination Unit (CELCO) towards a new supervisory role as Secretariat of the Steering Committee by: (i) adding to the unit a full time national Technical Director (high level national specialized expert to be recruited on a competitive basis) who will be supported by international technical assistance to be recruited on a competitive basis who will support the national coordinator and at the same time will ensure the on-job training of the newly recruited national Technical Director; (ii) strengthening the fiduciary capacities of the unit at the three critical levels of: procurement, financial management and audit; (iii) supporting the introduction of more articulated and adapted monitoring and evaluation mechanisms, building on the well performing ones; and (iv) providing ad hoc international expertise and support on more sophisticated technical issues under component B and C (safeguards, carbon finance, WAVES, PPP, etc). This will involve, amongst other activities, the preparation of an internal audit procedures manual and developing a more systematic approach to internal audit activities. At the same time, the current monitoring and evaluation arrangements and systems will be improved with the objective of measuring performance of all additional financing activities, including technical and financial performance of MNP operations, and efficiency of social mitigation measures. Monitoring and evaluation systems of the PCU, MNP, the Foundation will be strengthened to ensure a consistent and robust approach. This component will finance technical assistance, expertise, consultant services, salaries and operating costs, logistical support, supervision mission expenses and equipment. The cost estimates of the four sub-components in US\$ million are as follows: project implementation coordination and supervision - US\$1.8 million; project monitoring and evaluation - US\$0.1 million; technical assistance and training - US\$0.7 million; and operating expenses – US\$0.5 million.

Appendix 1: Additional Financing Activities for the Madagascar Foundation for Protected Areas and Biodiversity

94. The proposed additional financing would help sustainably finance Madagascar’s protected area network by providing an additional US\$10 million to the endowment fund of a conservation trust fund, the Foundation for Protected Areas and Biodiversity (hereafter referred to as “the Foundation”), and technical support to improve the Foundation’s management skills and reinforce its fund raising capacities.

95. The Foundation has a current capital of US\$26 million (refer Table A3.3) and manages a KfW sinking fund of €10.2 million. Table A3.4 summarizes the Foundation's performance since 2008.

Table A3.3: Past Capital Contributions to the Foundation

| Donor | Value (US\$) | Date of Contribution |
|---|---------------------|-------------------------------|
| Govt of Madagascar / KfW | 1,054,285 | February / December 2006 |
| Conservation International | 1,000,000 | March 2007 |
| WWF | 1,041,334 | April / November 2006 |
| AfD | 2,642,900 | December 2006 |
| FFEM | 1,321,450 | December 2006 |
| World Bank – IDA | 7,500,000 | February 2007 / November 2009 |
| Govt of Madagascar / French Government (C2D) | 10,994,600 | 2008 / 2009 / 2010 |
| Private donors | 5,515 | 2006 - 2010 |
| <i>Total of disbursed contributions as of April 2011</i> | | <i>US\$25,560,083</i> |

Table A3.4: Past Performance of the Foundation

| | 2008 | 2009 | 2010 | March 2011 |
|---|-------------|-------------|-------------|-------------------|
| Initial Capital (US\$) | 13,723,761 | 21,116,138 | 24,501,284 | 24,501,284 |
| Portfolio Value at end of Year | 12,909,093 | 21,484,089 | 25,374,862 | 26,509,057 |
| Gain / Loss on the Capital | - 814,668 | 367,951 | 873,578 | 2,007,773 |
| Cumulative Performance = Ratio (Gain / Loss) / Capital | -5.94% | 1.74% | 3.57% | 8.19% |

96. The first activity under the additional financing would be to increase the current capital by transferring US\$10 million to the Foundation's endowment fund that would increase the total IDA/GEF contribution to US\$17.5 million (including an IDA contribution of US\$7.5 million under EP3). This combined capital will contribute to the recurrent costs of ten protected areas covering US\$1,050,000 (Table A3.5).

Table A3.5: Protected Areas to be supported through IDA/GEF Contributions to Foundation

| National Park | Area (ha) | Total Estimate of Recurrent Costs (US\$) | Participation of Foundation (US\$) | | | |
|--------------------|-----------|--|------------------------------------|----------------|----------------|-----------------------------|
| | | | 2012 | 2013 | 2014 | % of recurrent costs (2014) |
| Ambatovaky | 78 139 | 130,957 | | 60,000 | 60,000 | 46 |
| Andohahela | 76 020 | 178,729 | 80,000 | 80,000 | 80,000 | 45 |
| Ankarana | 18 225 | 187,187 | 80,000 | 80,000 | 80,000 | 43 |
| Baie de Baly | 79 160 | 100,215 | | | 40,000 | 40 |
| Bemaraha | 157 710 | 200,207 | | | 80,000 | 40 |
| Masoala | 230 000 | 300,807 | 100,000 | 100,000 | 100,000 | 33 |
| Midongy du Sud | 192 198 | 194,746 | | | 80,000 | 41 |
| Ranomafana | 41 601 | 214,620 | | 90,000 | 90,000 | 41 |
| Tsaratana M/garivo | 113 822 | 160,158 | 70,000 | 70,000 | 70,000 | 43 |
| Zahamena | 63 898 | 226,763 | | 80,000 | 80,000 | 35 |
| TOTAL | | 1,894,000 | 330,000 | 560,000 | 760,000 | 40 |

97. The GEF contribution will be in the form of a capital endowment rather than a sinking fund given the higher cost-effectiveness of the former option. The cost effectiveness was examined through a comparison of two alternatives that were considered during development of the project: (i) use of US\$10 million to increase the endowment of the Foundation; or (ii) use of US\$10 million to provide direct support to the protected area network.

(i) Option 1: If US\$10 million were invested in the endowment fund managed by the Foundation, and assuming that the net annual revenue for protected area support is around 4.5 percent, the Foundation would be able to support at least US\$ 450,000 per year. The recurrent costs of managing the 16 protected areas financed by GEF during the EP3 is US\$1.35 million/year. Hence this revenue would support around 33 percent of the recurrent costs of the 16 protected areas that were supported by GEF in the past through EP3 in perpetuity.

(ii) Option 2: US\$10 million of direct financing could cover the recurrent costs for these protected areas over a period of 7 years (US\$0.5 million would be used to cover project management costs during 7 years). To allow comparison with the previous option, direct financing of US\$10 million would allow financing of 33 percent of the recurrent costs of the 16 protected areas for a period of 21 years.

98. The capital contribution will generate its first annual revenues only after a period of 12-18 months and it is estimated that the combined IDA/GEF contributions would generate US\$790,000/year. However, before these revenues can be used to finance protected areas, social safeguards have to be put in place, which might take 6 months for the elaboration of all social safeguard plans, and another 12-18 months for implementation of all compensation measures. Thus funding of the recurrent costs of protected areas would therefore fully start in Year 3 for protected areas where safeguards have not been already been put in place during EP3.

99. Whereas the Foundation's Board is independent both from the Government and donors, grant conventions signed with the donors usually specify the donors' conditions and

requirements. These could include for instance that annual revenues, generated from IDA and GEF capital contributions, would in priority flow to protected areas established and supported by IDA and GEF during EP3. The Foundation would then, based on its own prioritization manual including criteria for biodiversity values, threats and financing gaps, establish the list of priority protected areas to be funded. The eligible costs cover, in priority, recurrent management costs as well as essential financial gaps of the protected areas. Often, the Foundation would not be the only donor of a protected area, and would even encourage protected area to raise funds with other donors. The Foundation will disburse directly to the Directorates of the priority parks. Madagascar National Parks will receive a fixed percentage at General Directorate and Interregional Directorate levels, to contribute to the network management overhead costs. The conditions would also include the procurement procedures to be used, the reporting requirements, and the monitoring and evaluation requirements of the donor, among others.

100. It has to be noted that there will be substantial annual variations in net return, and that therefore the annual funding of the parks can substantially vary according to market performance. In order to preserve the capital in the long term, the Foundation will under no circumstances disburse more annual funding than is created by revenues.

101. Until now, the Foundation has been occupied with capital raising, placement monitoring and developing adequate procedures and manuals. Protected areas funding was so far limited to 5 parks through sinking funds of KfW, and 7 parks through capital revenues from 2011 on. Therefore, the staff and capacities of the Foundation have remained limited so far. With the GEF grant that is proposed as part of the additional financing, the Foundation is entering a period of large scale funding of protected areas, for GEF and IDA supported parks as well as for other parks with revenues from capital contribution of other donors. This task requires significant capacity strengthening.

102. During 2010, the Foundation developed and adopted: (i) a monitoring and evaluation manual; (ii) a grant administration manual; and (iii) a prioritization manual that provides the Foundation with a transparent tool to determine which protected areas benefit from their financing, thereby avoiding contention and charges of partisanship in protected area financing. The manual uses criteria such as biodiversity levels, gap financing, state of management and governance structures, and incremental impacts. Also in 2010, EP3 funding was made available to the Foundation, in order to assess and update the Foundation's current investment policy, as well as to establish an adequate environmental and social safeguards framework for the future.

103. The additional financing will further support the Foundation in capacity strengthening. This includes improved capacities for securing and monitoring the Foundations capital placement, as well as guidelines and procedures for implementation such as utilization principles for annual revenues, safeguard frameworks, financial management and monitoring and evaluation procedures. The Foundation's supervision, monitoring and administration capacities will also be improved.

104. Finally, the additional financing would also strengthen the Foundation's capacities to raise additional funds, notably in the fields of permanent sinking funds and management of environmental payments such as carbon funds and green taxes. In order to further increase the Foundation's capital, the additional financing project will allow the Foundation to prepare a request for a further capital contribution of US\$ 10 million to GEF 5.

105. In addition to its participation to the bi-annual meetings between the donors and the Foundation, where the grant decisions are discussed and presented by the Foundation, the additional financing project will conduct bi-annual supervision missions over its 3 year-implementation timeframe. These meetings will enable the project team to discuss with and provide recommendations to the Foundation on a 6 monthly basis on: (i) harmonization of allocation procedures; (ii) the inclusion of additional protected areas to the list of eligible PAs; (iii) the optimal allocation of available funds amongst the selected protected areas (100 percent funding versus partially funding); and (iv) monitoring of beneficiaries and impacts.

106. An 18 month consolidated procurement plan which includes US\$700,000 in technical support activities for the Foundation has been prepared. In addition, the Foundation will submit a rolling, triennial revenue allocation plan addressing disbursement of revenues generated from the combined IDA/GEF capital endowment to the project for clearance. The project and the Foundation will jointly identify and set specific indicators against which the implementation of the activities will be measured. Periodic progress reports, including financial reports will be submitted to the project by the Foundation.

107. GEF, World Bank and PCU support and supervision will end after three years of project implementation, after which the Foundation will remain the sole responsible for capital management and park funding through perpetual revenues. For the period after the additional financing, the commitment of the Foundation will be to sustain the developed approach in terms of priority protected areas, social safeguards and eligible costs, while being free to improve the quality of funding procedures.

108. While the Foundation has proved itself very capable in mobilizing financing for its endowment fund, it has not yet proven itself in terms of large scale park funding and monitoring aspects. The capacity building provided by the additional financing will provide guidance for the Foundation in these respects and outsourcing of certain tasks, as for example financial audits and monitoring-evaluation, is a possible option to consider.

109. There are mild risks of contention on the part of stakeholders feeling threatened by the proposed project. Madagascar National Parks, which manages 2.4 million ha (out of the total 6.9 million ha) will be the primary beneficiary of the Foundation. However, the remaining 4.5 million ha of new protected areas will be placed under the authority of the Directorate General of Forests (DGF) and managed by other stakeholders, including local communities, NGOs, and regional authorities. These new protected areas, once well established and having a solid financial management and accounting system put in place, will also be eligible for funding from the Foundation. Even if a competitive approach between protected areas is potentially positive, tensions could arise between the different recipients if they were to feel overlooked by the Foundation in its allocation of funds – especially if Madagascar National Parks, which makes up less than half of the total protected area network, receives more than its “share.” The criteria under which the protected areas to benefit from the Foundation will be chosen are outlined in the prioritization manual of the Foundation. Most traditional donors favor financing the existing protected areas (those managed by Madagascar National Parks) so as to secure their previous investments, while the government seems to favor opening up the financing to all protected areas within the extended system. To mitigate the risk of contention at all times, the Foundation will ensure transparency of its allocations through implementation of its prioritization procedures and ensure capacity building support is provided to the new protected area managers.

110. The management of the Foundation's capital is based on a transparent investment policy intended to strike a balance between: (i) preserving and expanding the capital in the long run; (ii) securing a sufficient revenue stream (aiming for a 4.5 percent annual net return in the long run) to allow the Foundation to fund running costs of established protected areas. A potential risk is that market conditions remain unfavorable, such that revenues available for protected area management would be lower than estimated. To reduce this risk, the Foundation has been working since December 2006 with extremely experienced investment managers at the world-renowned firm J.P. Morgan Chase, which was selected through an open bidding process; JP Morgan Private Banking currently manages US\$21 million from the Foundation. The contract with these investment managers requires low-risk investments, and as such had stipulated that at most 40 percent of the capital could be invested in equity.

111. Until recently, the managers had kept the balance at 30 percent equity and 70 percent debt. During the recent financial turmoil, the balance was downgraded to 85 percent debt and 15 percent equity in order to minimize the systemic risk, but since the end of 2009, the equity component has increased to 30 percent again. To minimize the risk associated with these particular investment managers, the Foundation's Board reserves the right to withdraw funds and reinvest them with another manager. The performance of the funds is tracked by the Foundation on a bi-monthly basis to preempt any apparent move toward capital loss. Furthermore, the equivalent of US\$1 million in local currency (from German debt cancellation) is managed by the Executive Director of the Foundation, who invests the funds in the local Treasury bonds market. The EP3 funded assessment and updating of the Foundation's current investment policy will further minimize risks. The capacity building under the additional financing includes international assistance to monitor capital placement and evaluate funds managers, as well as training for the Foundation's Board investment committee, which contributes further to mitigate risks.

Annex 4: Revised Estimate of Project Costs

Table A4.1: Project Cost Summary

Republic of Madagascar

Third Environmental Support Project - Additional Financing

Components Project Cost Summary

| | (MAG Billion) | | | (USD Million) | | | % | % Total |
|---|---------------|-------------|--------------|---------------|-------------|-------------|-------------|--------------|
| | Local | Foreign | Total | Local | Foreign | Total | Exchange | Base |
| | | | | | | | | Costs |
| A. Protected Area and Landscape Management | | | | | | | | |
| A.1 Protected Area surveillance | 27.8 | 1.4 | 29.2 | 15.0 | 0.8 | 15.8 | 4.9 | 29.3 |
| A.2 Conservation infrastructure | 3.0 | 0.3 | 3.3 | 1.6 | 0.1 | 1.8 | 8.3 | 3.3 |
| A.3 Conservation and management equipment | 0.9 | 0.9 | 1.9 | 0.5 | 0.5 | 1.0 | 49.4 | 1.9 |
| A.4 Landscape Strategic Management | 0.5 | 0.2 | 0.8 | 0.3 | 0.1 | 0.4 | 29.8 | 0.8 |
| A.5 Support to MNP reorganization | 2.6 | 0.6 | 3.1 | 1.4 | 0.3 | 1.7 | 18.8 | 3.2 |
| Subtotal | 34.8 | 3.4 | 38.3 | 18.8 | 1.9 | 20.7 | 9.0 | 38.3 |
| B. Local Community support and development | | | | | | | | |
| B.1 Community development and involvement in protected areas management | 7.0 | 3.1 | 10.1 | 3.8 | 1.7 | 5.5 | 30.7 | 10.1 |
| B.2 Community development and involvement in PA management | 11.9 | 1.3 | 13.2 | 6.4 | 0.7 | 7.1 | 10.0 | 13.2 |
| Subtotal | 18.9 | 4.4 | 23.3 | 10.2 | 2.4 | 12.6 | 19.0 | 23.4 |
| C. Sustainable Financing mechanisms for PAs and Landscapes | | | | | | | | |
| C.1 Conservation Trust Fund | 0.4 | 19.2 | 19.6 | 0.2 | 10.4 | 10.6 | 98.1 | 19.6 |
| C.2 Support to ecotourism development | 6.0 | 2.9 | 9.0 | 3.3 | 1.6 | 4.8 | 32.8 | 9.0 |
| C.3 Preparation for environmental services markets | 3.1 | 1.3 | 4.4 | 1.7 | 0.7 | 2.4 | 29.2 | 4.4 |
| Subtotal | 9.5 | 23.5 | 33.0 | 5.2 | 12.7 | 17.8 | 71.1 | 33.1 |
| D. Project Management, Implementation, Monitoring and Evaluation | | | | | | | | |
| D.1. Project Implementation, Coordination and Supervision | 2.3 | 0.7 | 3.1 | 1.3 | 0.4 | 1.7 | 23.5 | 3.1 |
| D.2. Project Monitoring and Evaluation | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 20.0 | 0.1 |
| D.3. Technical assistance and training | 0.3 | 0.8 | 1.2 | 0.2 | 0.4 | 0.6 | 70.0 | 1.2 |
| D.4. Operating expenses | 0.9 | - | 0.9 | 0.5 | - | 0.5 | - | 0.9 |
| Subtotal | 3.7 | 1.6 | 5.2 | 2.0 | 0.8 | 2.8 | 29.6 | 5.3 |
| Total BASELINE COSTS | 67.0 | 32.9 | 99.8 | 36.2 | 17.8 | 54.0 | 32.9 | 100.0 |
| Physical Contingencies | 4.2 | 0.8 | 5.0 | 2.3 | 0.4 | 2.7 | 15.3 | 5.0 |
| Price Contingencies | 4.0 | 0.7 | 4.7 | 2.2 | 0.4 | 2.5 | 14.1 | 4.7 |
| Total PROJECT COSTS | 75.2 | 34.3 | 109.5 | 40.7 | 18.5 | 59.2 | 31.3 | 109.7 |

Note: Figures may not add up to total due to rounding

Table A4.2: Project Cost by Year

Republic of Madagascar

Third Environmental Support Project - Additional Financing

Project Components by Year -- Totals Including Contingencies

(In US\$ Million)

| | 2012 | 2013 | 2014 | 2015 | Total |
|---|-------------|-------------|-------------|------------|-------------|
| A. Protected Area and Landscape Management | | | | | |
| A.1 Protected Area surveillance | 5.1 | 5.2 | 5.2 | 0.3 | 15.8 |
| A.2 Conservation infrastructure | 0.9 | 0.8 | 0.1 | - | 1.8 |
| A.3 Conservation and management equipment | 1.0 | - | - | - | 1.0 |
| A.4 Landscape Strategic Management | 0.2 | 0.2 | 0.1 | 0.0 | 0.4 |
| A.5 Support to MNP reorganization | 0.5 | 0.8 | 0.5 | - | 1.7 |
| Subtotal | 7.6 | 7.0 | 5.8 | 0.3 | 20.7 |
| B. Local Community support and development | | | | | |
| B.1 Community development and involvement in protected areas management | 1.1 | 3.1 | 1.1 | 0.1 | 5.5 |
| B.2 Community development and involvement in PA management | 2.1 | 2.6 | 2.5 | - | 7.1 |
| Subtotal | 3.1 | 5.7 | 3.6 | 0.1 | 12.6 |
| C. Sustainable Financing mechanisms for PAs and Landscapes | | | | | |
| C.1 Conservation Trust Fund | 10.3 | 0.2 | 0.2 | - | 10.6 |
| C.2 Support to Ecotourism development | 1.5 | 2.8 | 0.6 | - | 4.8 |
| C.3 Preparation for environmental services markets | 0.8 | 1.0 | 0.5 | - | 2.4 |
| Subtotal | 12.6 | 4.0 | 1.3 | - | 17.8 |
| D. Project Management, Implementation, Monitoring and Evaluation | | | | | |
| D.1. Project Implementation, Coordination and Supervision | 0.6 | 0.5 | 0.4 | 0.1 | 1.7 |
| D.2. Project Monitoring and Evaluation | 0.0 | 0.0 | - | - | 0.1 |
| D.3. Technical assistance and training | 0.2 | 0.2 | 0.2 | 0.0 | 0.6 |
| D.4. Operating expenses | 0.2 | 0.2 | 0.2 | 0.0 | 0.5 |
| Subtotal | 1.1 | 0.8 | 0.8 | 0.1 | 2.8 |
| Total BASELINE COSTS | 24.4 | 17.5 | 11.4 | 0.6 | 54.0 |
| Physical Contingencies | 0.9 | 1.1 | 0.7 | 0.0 | 2.7 |
| Price Contingencies | 0.4 | 1.0 | 1.1 | 0.0 | 2.5 |
| Total PROJECT COSTS | 25.7 | 19.7 | 13.2 | 0.6 | 59.2 |

Note: Figures may not add up to total due to rounding

Table A4.3: Project Cost by Financier

Republic of Madagascar
Third Environmental Support Project - Additional Financing
Components by Financiers
(US\$ Million)

| | MNP self financing | | DEAP | | WCS | | Conservation International | | Fund Raising MNP | | Fondation Conservation | | NGOs | | IDA | | GEF | | GOM | | Total | | Foreign | Local (Excl. Taxes) | Duties & Taxes | |
|--|--------------------|------|--------|---|--------|---|----------------------------|---|------------------|---|------------------------|-----|--------|------|--------|------|--------|------|--------|------|--------|------|---------|---------------------|----------------|--|
| | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | Amount | % | | | | |
| A. Protected areas and landscapes management | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Protected areas surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Control & surveillance activities by Park rangers | - | - | - | - | - | - | - | - | - | - | - | - | - | 9.0 | 74.0 | - | - | 3.2 | 26.0 | 12.2 | 20.6 | - | - | 9.8 | 2.4 | |
| b. Control & surveillance activities in 3 corridors | - | - | - | - | - | - | - | - | - | - | - | - | 2.6 | 49.4 | 2.7 | 50.6 | - | - | 0.0 | - | 5.3 | 9.0 | 0.8 | 3.5 | 1.1 | |
| Sub Total Protected areas surveillance | - | - | - | - | - | - | - | - | - | - | - | - | 2.6 | 15.0 | 11.7 | 66.9 | - | - | 3.2 | 18.1 | 17.5 | 29.6 | 0.8 | 13.2 | 3.5 | |
| 2. Conservation infrastructure | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Conservation and maintenance of conservation infrastructure (MNP) | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.2 | 100.0 | - | - | 0.0 | - | 1.2 | 2.0 | - | 1.0 | 0.2 | | |
| b. Conservation and maintenance of conservation infrastructure (3corridors) | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 16.6 | 0.7 | 83.4 | - | - | 0.0 | - | 0.8 | 1.4 | 0.2 | 0.5 | 0.2 | | |
| Sub Total Conservation infrastructure | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 6.8 | 1.9 | 93.2 | - | - | 0.0 | - | 2.1 | 3.5 | 0.2 | 1.5 | 0.4 | | |
| 3. Conservation and management equipment | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Renewing of conservation and management equipment | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.1 | 100.0 | - | - | 0.0 | - | 1.1 | 1.9 | 0.6 | 0.4 | 0.2 | | |
| 4 Landscape Strategic Management | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Databases and mapping of ecosystem and natural resources | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | |
| b. Support to existing regional stakeholder platforms and tools for land use and natural resource management | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | |
| c. Strengthen NGO and community capacity in monitoring of illegal natural resources exploitation activities | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | |
| d. Evaluation of climate change effects on forest cover and protected areas | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | |
| Sub Total Landscape management | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | 100.0 | - | - | 0.0 | - | 0.5 | 0.8 | 0.1 | 0.2 | 0.1 | 0.1 | |
| 5 Support to MNP reorganization | 1.2 | 58.8 | - | - | - | - | - | - | - | - | - | - | - | 0.8 | 41.2 | - | - | - | - | 2.1 | 3.5 | 0.4 | 1.3 | 0.4 | 0.4 | |
| Sub Total Protected areas and landscapes management | 1.2 | 5.2 | - | - | - | - | - | - | - | - | - | 2.8 | 11.9 | 16.1 | 69.2 | - | - | 3.2 | 13.6 | 23.2 | 39.2 | 2.0 | 16.6 | 4.6 | 4.6 | |
| B. Local community support and development | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Community development and involvement in protected areas management | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. External audit for 11 PAs and indigenous persons management | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | 100.0 | - | - | 0.0 | - | 0.2 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | |
| b. Retrospective social evaluation for 18 mature PAs and compensation to affected PAs | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.1 | 100.0 | - | - | 0.0 | - | 3.1 | 5.3 | 0.9 | 1.6 | 0.6 | 0.6 | |
| c. Social safeguards for 2 NAPs | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.6 | 100.0 | - | - | 0.0 | - | 2.6 | 4.3 | 0.8 | 1.3 | 0.5 | 0.5 | |
| d. Technical standards for social safeguards development and implementation | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | |
| Sub Total Social safeguards implementation and monitoring | - | - | - | - | - | - | - | - | - | - | - | - | - | 6.0 | 100.0 | - | - | 0.0 | - | 6.0 | 10.2 | 1.8 | 3.0 | 1.2 | 1.2 | |
| 2 Community development and involvement in PA management | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Support to Community Park Committees (CLP) | - | - | - | - | - | - | - | - | - | - | - | - | - | 4.1 | 100.0 | - | - | 0.0 | - | 4.1 | 7.0 | 0.4 | 2.9 | 0.8 | 0.8 | |
| b. Support to Park support committees (COSAP) | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | 100.0 | - | - | - | - | 0.5 | 0.9 | 0.1 | 0.4 | 0.1 | 0.1 | |
| c. Support to Community Forest Management Groups (VOI) | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.3 | 100.0 | - | - | 0.0 | - | 3.3 | 5.6 | 0.3 | 2.3 | 0.7 | 0.7 | |
| Sub Total Community development and involvement in protected areas management | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.0 | 100.0 | - | - | 0.0 | - | 8.0 | 13.5 | 0.8 | 5.6 | 1.6 | 1.6 | |
| Sub Total Local community support and development | - | - | - | - | - | - | - | - | - | - | - | - | - | 14.0 | 100.0 | - | - | 0.0 | - | 14.0 | 23.7 | 2.6 | 8.6 | 2.8 | 2.8 | |
| C. Sustainable financing mechanisms for protected areas and landscapes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Conservation Trust Fund | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Capitalization of Endowment Fund | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10.0 | 100.0 | - | - | 10.0 | 17.1 | 10.0 | - | - | - | |
| b. Support to Foundation | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.7 | 100.0 | - | - | 0.0 | - | 0.7 | 1.1 | 0.4 | 0.1 | 0.1 | 0.1 | |
| Sub Total Conservation Trust Fund | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.7 | 6.1 | 10.0 | 93.9 | 0.0 | - | 10.8 | 18.2 | 10.5 | 0.1 | 0.1 | 0.1 | |
| 2. Support to ecotourism development | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Support to planning and investment in infrastructure in selected PAs | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.9 | 100.0 | - | - | 0.0 | - | 0.9 | 1.6 | 0.3 | 0.5 | 0.2 | 0.2 | |
| b. PPP support to private sector investment | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.3 | 100.0 | - | - | 0.0 | - | 3.3 | 5.6 | 1.3 | 1.4 | 0.7 | 0.7 | |
| c. Support to community based investments | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.2 | 100.0 | - | - | - | - | 1.2 | 2.0 | 0.1 | 0.8 | 0.2 | 0.2 | |
| Sub Total Support to ecotourism development | - | - | - | - | - | - | - | - | - | - | - | - | - | 5.4 | 100.0 | - | - | 0.0 | - | 5.4 | 9.2 | 1.7 | 2.7 | 1.1 | 1.1 | |
| 3. Preparation for environmental service markets | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Evaluation of carbon finance institutional framework and avoided deforestation preparation activities | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.2 | 100.0 | - | - | -0.0 | - | 2.2 | 3.7 | 0.7 | 1.1 | 0.4 | 0.4 | |
| b. Wealth accounting and valuation of ecosystems services (WAVES) global partnership activities | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.6 | 100.0 | - | - | 0.0 | - | 0.6 | 0.9 | 0.1 | 0.3 | 0.1 | 0.1 | |
| Sub Total preparation for environmental service markets | - | - | - | - | - | - | - | - | - | - | - | - | - | 2.8 | 100.0 | - | - | 0.0 | - | 2.8 | 4.6 | 0.8 | 1.4 | 0.6 | 0.6 | |
| Sub Total Sustainable financing mechanisms for protected areas and landscapes | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.8 | 46.7 | 10.0 | 53.3 | 0.0 | - | 18.9 | 32.0 | 13.0 | 4.2 | 1.8 | 1.8 | |
| D. Project management, monitoring and evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Project Implementation, Coordination and Supervision | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.8 | 100.0 | - | - | 0.0 | - | 1.8 | 3.0 | 0.4 | 1.0 | 0.4 | 0.4 | |
| 2. Project monitoring and evaluation | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 100.0 | - | - | 0.0 | - | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 3. Technical assistance and training | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.7 | 100.0 | - | - | 0.0 | - | 0.7 | 1.1 | 0.5 | 0.1 | 0.1 | 0.1 | |
| 4. Operating expenses | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | 100.0 | - | - | 0.0 | - | 0.5 | 0.9 | - | 0.4 | 0.1 | 0.1 | |
| Sub Total Project management, monitoring and evaluation | - | - | - | - | - | - | - | - | - | - | - | - | - | 3.0 | 100.0 | - | - | 0.0 | - | 3.0 | 5.1 | 0.9 | 1.5 | 0.7 | 0.7 | |
| Total Disbursements | 1.2 | 2.0 | - | - | - | - | - | - | - | - | - | 2.8 | 4.7 | 42.0 | 70.9 | 10.0 | 17.1 | 3.2 | 5.3 | 59.2 | 100.0 | 18.5 | 30.8 | 9.9 | 9.9 | |

Table A4.4: Project Cost by Year (Base Cost)

| Republic of Madagascar Third Environmental Support Project - Additional Financing Project Components by Year -- Base Costs (US\$ Million) | | | | | |
|--|------|------|------|------|-------|
| Base Costs | | | | | |
| | 2012 | 2013 | 2014 | 2015 | Total |
| A. Protected areas and landscapes management | | | | | |
| 1. Protected areas surveillance | | | | | |
| a. Control & surveillance activities by Park rangers | 3.8 | 3.6 | 3.4 | - | 10.8 |
| b. Control & surveillance activities in 3 corridors | 1.3 | 1.6 | 1.8 | 0.3 | 5.0 |
| Sub Total Protected areas surveillance | 5.1 | 5.2 | 5.2 | 0.3 | 15.8 |
| 2. Conservation infrastructure | | | | | |
| a. Conservation and maintenance of conservation infrastructure (MNP) | 0.4 | 0.6 | - | - | 1.0 |
| b. Conservation and maintenance of conservation infrastructure (3corridors) | 0.5 | 0.2 | 0.1 | - | 0.8 |
| Sub Total Conservation infrastructure | 0.9 | 0.8 | 0.1 | - | 1.8 |
| 3. Conservation and management equipment | | | | | |
| a. Renewing of conservation and management equipment | 1.0 | - | - | - | 1.0 |
| 4 Landscape Strategic Management | | | | | |
| a. Databases and mapping of ecosystem and natural resources | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 |
| b. Support to existing regional stakeholder platforms and tools for land use and natural resource management | 0.0 | 0.0 | 0.0 | - | 0.0 |
| c. Strengthen NGO and community capacity in monitoring of illegal natural resources exploitation activities | 0.1 | 0.0 | 0.0 | - | 0.1 |
| d. Evaluation of climate change effects on forest cover and protected areas | 0.0 | 0.0 | 0.0 | - | 0.0 |
| Sub Total Landscape management | 0.2 | 0.2 | 0.1 | 0.0 | 0.4 |
| 5 Support to MNP reorganization | 0.5 | 0.8 | 0.5 | - | 1.7 |
| Sub Total Protected areas and landscapes management | 7.6 | 7.0 | 5.8 | 0.3 | 20.7 |
| B. Local community support and development | | | | | |
| 1 Community development and involvement in protected areas management | | | | | |
| a. External audit for 11 PAs and indigenous persons management | 0.0 | 0.2 | - | - | 0.2 |
| b. Retrospective social evaluation for 18 mature PAs and compensation to affected PAs | 0.6 | 2.3 | - | - | 2.9 |
| c. Social safeguards for 2 NAPs | 0.5 | 0.7 | 1.0 | 0.1 | 2.3 |
| d. Technical standards for social safeguards development and implementation | - | - | 0.1 | - | 0.1 |
| Sub Total Social safeguards implementation and monitoring | 1.1 | 3.1 | 1.1 | 0.1 | 5.5 |
| 2 Community development and involvement in PA management | | | | | |
| a. Support to Community Park Committees (CLP) | 1.0 | 1.2 | 1.4 | - | 3.7 |
| b. Support to Park support committees (COSAP) | 0.1 | 0.3 | 0.1 | - | 0.5 |
| c. Support to Community Forest Management Groups (VOI) | 1.0 | 1.1 | 0.9 | - | 3.0 |
| Sub Total Community development and involvement in protected areas management | 2.1 | 2.6 | 2.5 | - | 7.1 |
| Sub Total Local community support and development | 3.1 | 5.7 | 3.6 | 0.1 | 12.6 |
| C. Sustainable financing mechanisms for protected areas and landscapes | | | | | |
| 1. Conservation Trust Fund | | | | | |
| a. Capitalization of Endowment Fund | 10.0 | - | - | - | 10.0 |
| b. Support to Foundation | 0.3 | 0.2 | 0.2 | - | 0.6 |
| Sub Total Conservation Trust Fund | 10.3 | 0.2 | 0.2 | - | 10.6 |
| 2. Support to ecotourism development | | | | | |
| a. Support to planning and investment in infrastructure in selected PAs | 0.3 | 0.5 | - | - | 0.8 |
| b. PPP support to private sector investment | 0.8 | 1.8 | 0.4 | - | 3.0 |
| c. Support to community based investments | 0.3 | 0.5 | 0.2 | - | 1.0 |
| Sub Total Support to ecotourism development | 1.5 | 2.8 | 0.6 | - | 4.8 |
| 3. Preparation for environmental service markets | | | | | |
| a. Evaluation of carbon finance institutional framework and avoided deforestation preparation activities | 0.5 | 0.9 | 0.5 | - | 1.9 |
| b. Wealth accounting and valuation of ecosystems services (WAVES) global partnership activities | 0.3 | 0.2 | - | - | 0.5 |
| Sub Total preparation for environmental service markets | 0.8 | 1.0 | 0.5 | - | 2.4 |
| Sub Total Sustainable financing mechanisms for protected areas and landscapes | 12.6 | 4.0 | 1.3 | - | 17.8 |
| D. Project management, monitoring and evaluation | | | | | |
| 1. Project Implementation, Coordination and Supervision | 0.6 | 0.5 | 0.4 | 0.1 | 1.7 |
| 2. Project monitoring and evaluation | 0.0 | 0.0 | - | - | 0.0 |
| 3. Technical assistance and training | 0.2 | 0.2 | 0.2 | 0.0 | 0.6 |
| 4. Operating expenses | 0.2 | 0.2 | 0.2 | 0.0 | 0.5 |
| Sub Total Project management, monitoring and evaluation | 1.1 | 0.8 | 0.8 | 0.1 | 2.8 |
| Total BASELINE COSTS | 24.4 | 17.5 | 11.4 | 0.6 | 54.0 |
| Physical contingencies | 0.9 | 1.1 | 0.7 | 0.0 | 2.7 |
| Price contingencies | 0.4 | 1.0 | 1.1 | 0.0 | 2.5 |
| Total PROJECT COSTS | 25.7 | 19.7 | 13.2 | 0.6 | 59.2 |

Table A4.5: Project Cost by Year (Contingencies)

Republic of Madagascar
Third Environmental Support Project - Additional Financing
Project Components by Year -- Totals Including Contingencies
(US\$ Million)

| | Totals Including Contingencies | | | | |
|--|---------------------------------------|-------------|-------------|-------------|--------------|
| | 2012 | 2013 | 2014 | 2015 | Total |
| A. Protected areas and landscapes management | | | | | |
| 1. Protected areas surveillance | | | | | |
| a. Control & surveillance activities by Park rangers | 4.2 | 4.1 | 4.0 | - | 12.2 |
| b. Control & surveillance activities in 3 corridors | 1.3 | 1.7 | 2.0 | 0.3 | 5.3 |
| Sub Total Protected areas surveillance | 5.5 | 5.8 | 5.9 | 0.3 | 17.5 |
| 2. Conservation infrastructure | | | | | |
| a. Conservation and maintenance of conservation infrastructure (MNP) | 0.5 | 0.7 | - | - | 1.2 |
| b. Conservation and maintenance of conservation infrastructure (3corridors) | 0.5 | 0.3 | 0.1 | - | 0.8 |
| Sub Total Conservation infrastructure | 1.0 | 1.0 | 0.1 | - | 2.1 |
| 3. Conservation and management equipment | | | | | |
| a. Renewing of conservation and management equipment | 1.1 | - | - | - | 1.1 |
| 4 Landscape Strategic Management | | | | | |
| a. Databases and mapping of ecosystem and natural resources | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 |
| b. Support to existing regional stakeholder platforms and tools for land use and natural resource management | 0.0 | 0.0 | 0.0 | - | 0.1 |
| c. Strengthen NGO and community capacity in monitoring of illegal natural resources exploitation activities | 0.1 | 0.1 | 0.0 | - | 0.1 |
| d. Evaluation of climate change effects on forest cover and protected areas | 0.0 | 0.0 | 0.0 | - | 0.1 |
| Sub Total Landscape management | 0.2 | 0.2 | 0.1 | 0.0 | 0.5 |
| 5 Support to MNP reorganization | 0.5 | 0.9 | 0.6 | - | 2.1 |
| Sub Total Protected areas and landscapes management | 8.3 | 7.9 | 6.7 | 0.3 | 23.2 |
| B. Local community support and development | | | | | |
| 1 Community development and involvement in protected areas management | | | | | |
| a. External audit for 11 PAs and indigenous persons management | 0.0 | 0.2 | - | - | 0.2 |
| b. Retrospective social evaluation for 18 mature PAs and compensation to affected PAs | 0.6 | 2.5 | - | - | 3.1 |
| c. Social safeguards for 2 NAPs | 0.5 | 0.8 | 1.2 | 0.1 | 2.6 |
| d. Technical standards for social safeguards development and implementation | - | - | 0.1 | - | 0.1 |
| Sub Total Social safeguards implementation and monitoring | 1.1 | 3.5 | 1.3 | 0.1 | 6.0 |
| 2 Community development and involvement in PA management | | | | | |
| a. Support to Community Park Committees (CLP) | 1.1 | 1.4 | 1.7 | - | 4.1 |
| b. Support to Park support committees (COSAP) | 0.1 | 0.3 | 0.1 | - | 0.5 |
| c. Support to Community Forest Management Groups (VOI) | 1.0 | 1.2 | 1.1 | - | 3.3 |
| Sub Total Community development and involvement in protected areas management | 2.2 | 2.9 | 2.9 | - | 8.0 |
| Sub Total Local community support and development | 3.3 | 6.4 | 4.2 | 0.1 | 14.0 |
| C. Sustainable financing mechanisms for protected areas and landscapes | | | | | |
| 1. Conservation Trust Fund | | | | | |
| a. Capitalization of Endowment Fund | 10.0 | - | - | - | 10.0 |
| b. Support to Foundation | 0.3 | 0.2 | 0.2 | - | 0.7 |
| Sub Total Conservation Trust Fund | 10.4 | 0.2 | 0.2 | - | 10.8 |
| 2. Support to ecotourism development | | | | | |
| a. Support to planning and investment in infrastructure in selected PAs | 0.4 | 0.6 | - | - | 0.9 |
| b. PPP support to private sector investment | 0.9 | 2.0 | 0.5 | - | 3.3 |
| c. Support to community based investments | 0.3 | 0.6 | 0.2 | - | 1.2 |
| Sub Total Support to ecotourism development | 1.6 | 3.1 | 0.7 | - | 5.4 |
| 3. Preparation for environmental service markets | | | | | |
| a. Evaluation of carbon finance institutional framework and avoided deforestation preparation activities | 0.6 | 1.0 | 0.6 | - | 2.2 |
| b. Wealth accounting and valuation of ecosystems services (WAVES) global partnership activities | 0.4 | 0.2 | - | - | 0.6 |
| Sub Total preparation for environmental service markets | 0.9 | 1.2 | 0.6 | - | 2.8 |
| Sub Total Sustainable financing mechanisms for protected areas and landscapes | 12.9 | 4.5 | 1.5 | - | 18.9 |
| D. Project management, monitoring and evaluation | | | | | |
| 1. Project Implementation, Coordination and Supervision | 0.7 | 0.5 | 0.5 | 0.1 | 1.8 |
| 2. Project monitoring and evaluation | 0.1 | 0.0 | - | - | 0.1 |
| 3. Technical assistance and training | 0.3 | 0.2 | 0.2 | 0.0 | 0.7 |
| 4. Operating expenses | 0.2 | 0.2 | 0.2 | 0.0 | 0.5 |
| Sub Total Project management, monitoring and evaluation | 1.1 | 0.9 | 0.8 | 0.2 | 3.0 |
| Total PROJECT COSTS | 25.7 | 19.7 | 13.2 | 0.6 | 59.2 |

Table A4.6: Allocation of Loan Proceeds (IDA)

Republic of Madagascar
Third Environmental Support Project - Additional Financing
Allocation of Loan Proceeds
IDA
(US\$ Million)

| | Suggested allocation of loan proceeds | | Total Project Cost | | | Average disbursement % | | | Loan amount | | | | | | |
|---|---------------------------------------|----------------|--------------------|-------|---------|------------------------|-------|---------|-------------|-------|-------|-----------|-------|-------|---------|
| | Loan Amount | Disbursement % | Total | Local | Foreign | Total | Local | Foreign | Unallocated | | | Allocated | | | |
| | | | | | | | | | Total | Total | Local | Foreign | Total | Local | Foreign |
| A. Works | | | | | | | | | | | | | | | |
| 1. Works | | | | | | | | | | | | | | | |
| Works National | 4.6 | 100.0 | 5.0 | 4.2 | 0.8 | 100.0 | 100.0 | 100.0 | 5.0 | 0.4 | 0.3 | 0.1 | 4.6 | 3.9 | 0.7 |
| Sub Total Works | 4.6 | - | 5.0 | 4.2 | 0.8 | - | - | - | 5.0 | 0.4 | 0.3 | 0.1 | 4.6 | 3.9 | 0.7 |
| B. Equipment & Goods | | | | | | | | | | | | | | | |
| 1. Equipment & Goods General | 1.4 | 100.0 | 1.5 | 0.8 | 0.7 | 100.0 | 100.0 | 100.0 | 1.5 | 0.1 | 0.1 | 0.1 | 1.4 | 0.7 | 0.7 |
| Sub Total Equipment & Goods | 1.4 | - | 1.5 | 0.8 | 0.7 | - | - | - | 1.5 | 0.1 | 0.1 | 0.1 | 1.4 | 0.7 | 0.7 |
| C. Consulting Services | | | | | | | | | | | | | | | |
| 1. Contract Services | | | | | | | | | | | | | | | |
| a. Service Contracts | 12.9 | 71.8 | 19.4 | 18.4 | 1.0 | 71.8 | 71.7 | 73.7 | 13.9 | 1.0 | 0.9 | 0.1 | 12.9 | 12.2 | 0.7 |
| 2. Consultant services | | | | | | | | | | | | | | | |
| a. Consultant Services PIU | 0.9 | 100.0 | 0.9 | 0.7 | 0.2 | 100.0 | 100.0 | 100.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.9 | 0.7 | 0.2 |
| b. Consultant services | 10.5 | 87.8 | 12.5 | 9.5 | 3.0 | 87.8 | 88.4 | 85.9 | 11.0 | 0.5 | 0.4 | 0.1 | 10.5 | 8.0 | 2.5 |
| Sub Total Consultant services | 11.4 | - | 13.4 | 10.2 | 3.2 | - | - | - | 11.9 | 0.5 | 0.4 | 0.1 | 11.4 | 8.7 | 2.7 |
| 3. Technical Assistance | | | | | | | | | | | | | | | |
| a. Technical Assistance | 2.3 | 100.0 | 2.4 | 1.6 | 0.8 | 100.0 | 100.0 | 100.0 | 2.4 | 0.1 | 0.0 | 0.0 | 2.3 | 1.5 | 0.8 |
| 4. Training | | | | | | | | | | | | | | | |
| a. Training | 0.2 | 100.0 | 0.2 | 0.1 | 0.2 | 100.0 | 100.0 | 100.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.2 |
| Sub Total Consulting Services | 26.8 | - | 35.5 | 30.3 | 5.2 | - | - | - | 28.5 | 1.6 | 1.4 | 0.2 | 26.8 | 22.6 | 4.3 |
| D. GEF Endowment | | | | | | | | | | | | | | | |
| 1. Conservation Fondation | - | - | 10.0 | - | 10.0 | - | - | - | - | - | - | - | - | - | - |
| Sub Total GEF Endowment | - | - | 10.0 | - | 10.0 | - | - | - | - | - | - | - | - | - | - |
| E. Operating costs | | | | | | | | | | | | | | | |
| 1. Operating Costs Madagascar Unit | 1.6 | 100.0 | 1.6 | 1.4 | 0.1 | 100.0 | 100.0 | 100.0 | 1.6 | 0.0 | 0.0 | 0.0 | 1.6 | 1.4 | 0.1 |
| Sub Total Operating costs | 1.6 | - | 1.6 | 1.4 | 0.1 | - | - | - | 1.6 | 0.0 | 0.0 | 0.0 | 1.6 | 1.4 | 0.1 |
| F. Other costs (ESIA mitigation measures) | | | | | | | | | | | | | | | |
| 1. Subgrants (Safeguards) | 5.1 | 97.5 | 5.5 | 3.9 | 1.6 | 97.5 | 96.5 | 100.0 | 5.4 | 0.3 | 0.2 | 0.1 | 5.1 | 3.6 | 1.5 |
| Sub Total Other costs (ESIA mitigation measures) | 5.1 | - | 5.5 | 3.9 | 1.6 | - | - | - | 5.4 | 0.3 | 0.2 | 0.1 | 5.1 | 3.6 | 1.5 |
| Unallocated | 2.4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 42.0 | 70.9 | 59.2 | 40.7 | 18.5 | - | - | - | 42.0 | 2.4 | 2.0 | 0.4 | 39.6 | 32.2 | 7.4 |

Loan amount financed by IDA

Table A4.7: IDA Disbursement by Year

Republic of Madagascar
Third Environmental Support Project - Additional Financing
IDA Disbursement
(in US\$ million)

| Bank FY | 2012 | 2013 | 2014 | 2015 |
|----------------|-------------|-------------|-------------|-------------|
| Annual | 7.1 | 15.8 | 16.2 | 2.8 |
| Cumulative | 7.1 | 22.9 | 39.1 | 42.0 |
| Percentage | 17 | 38 | 39 | 7 |

Note: Figures may not add up to total due to rounding

Total Project Disbursement (Including GEF)
(in US\$ million)

| Bank FY | 2012 | 2013 | 2014 | 2015 |
|----------------|-------------|-------------|-------------|-------------|
| Annual | 18.7 | 18.8 | 17.9 | 3.8 |
| Cumulative | 18.7 | 37.4 | 55.4 | 59.2 |
| Percentage | 32 | 32 | 30 | 6 |

Note: Figures may not add up to total due to rounding

Table A4.8: Disbursement Table

| <i>Category</i> | <i>Amount of Credit Allocated (SDR)</i> | <i>% of Expenditures to be Financed (inc. taxes)</i> |
|--|---|--|
| (1) Works | | 100 % |
| (a) NGOs | 450,000 | |
| (b) Other | 2,400,000 | |
| (2) Goods | 900,000 | 100 % |
| (3) Consultants' services and Training | | 100 % |
| (a) NGOs | 1,800,000 | |
| (b) Other | 14,800,000 | |
| (4) Operating Costs | 1,000,000 | 100 % |
| (5) Grants | 3,150,000 | 100 % of amounts of Grants provided |
| | 1,500,000 | |
| (6) Unallocated | | |
| TOTAL AMOUNT | 26,000,000 | |

Annex 5: Revised Implementation Arrangements and Support

1. Project Implementation and Institutional Arrangements

112. Under EP3, the then Ministry of Environment, Water and Forests had the lead role in the coordination of project activities, including the relationship with IDA. Madagascar National Parks (then ANGAP), the Directorate General of Environment (DGE), the then Directorate of Water and Forests (DGEF now DGF) and the National Environment Office (ONE) had important roles in the implementation of individual project components. A Project Coordination Unit (PCU) – CELCO (*Cellule de coordination de PE3*) – was created and provided operational support to implementing agencies in terms of procurement, financial management, M&E, safeguards compliance and reporting functions.

113. The existing PCU (CELCO) will remain in place as the PCU. This institution has been operating autonomously since the beginning of EP3, and has been proven to be competent and can work satisfactorily with the Bank's technical and fiduciary teams. Further support will be provided both on technical and fiduciary aspects and ongoing dialogue will be carried out to prevent undue Government intervention in the PCU's activities. Project operational activities will be largely carried out by Madagascar National Parks (MNP) – an institution that is legally and financially autonomous and that works at arms-length from the administration. A subset of activities will be implemented by the three main international conservation NGOs (CI, WCS, WWF) involved in the sector, as well as by the Foundation.

114. A Project Steering Committee, to be chaired by the Ministry of Environment and Forests, would be established to oversee project implementation. The Steering Committee would be comprised of organizations and groups with an involvement in project implementation and outcomes and would include representatives of Madagascar National Parks, the Foundation, NGOs, community representatives and the private sector. Esteemed individuals in the environmental and biodiversity sectors would also be invited to join the Steering Committee to provide high level strategic advice. It is foreseen that CELCO would assure the secretariat function of the Steering Committee.

2. Financial Management

115. The PCU (CELCO) will retain its current responsibility for the overall financial management of the project. It will be charged with oversight of financial management by all implementing agencies, consolidation of the budgets, preparation and consolidation of the project's quarterly interim financial reports and annual financial statements, management of disbursements and preparation of withdrawal applications. The PCU will issue guidelines to the implementing agencies regarding financial management matters.

116. The internal audit function within the PCU will be reinforced through the recruitment of one additional internal auditor within a period of three months subsequent to effectiveness of the additional financing. This is aimed at enhancing the internal audit coverage of all the activities and entities financed by the Bank.

117. In view of recent special audit findings related to the isolated incident of fraud in 2010 at Madagascar National Parks (MNP) (refer paragraphs 67 – 68 of main text), the organization has put in place a Board audit committee and strengthened internal audit reporting arrangements. MNP's internal audit department is required to submit quarterly audit reports to the Board audit committee and a team of seven internal auditors have been assigned responsibility for specific

regional offices and the related national parks. The PCU's technical supervision and audit capacities will be strengthened and it will review all MNP internal audit reports and undertake additional reviews as may be deemed necessary to ensure that Bank funds are utilized for the intended purpose.

118. Regarding the financial arrangements of the Wildlife Conservation Society, it was noted that it has not yet implemented any World Bank projects in Madagascar in the past but is currently receiving funding from several external donors and is conversant with donor reporting procedures. It has financial management personnel with the appropriate qualifications and experience, accounting procedures are documented in the form of a manual and internal controls are assessed as adequate. A recent evaluation of its financial management capacity in preparation for a US\$1.8 million financing from the Japanese Social Development Fund was positive.

119. The financial management capacity of Conservation International and the World Wildlife Fund was also assessed. The two institutions possess appropriately qualified personnel and clearly documented financial management procedures. They are subject to oversight and periodic monitoring by their respective headquarters in the area of financial management. They are also involved in management a significant amount of funding received from external donor organizations.

120. A financial management assessment of the Foundation for Protected Areas and Biodiversity (FAPBM) was also performed and it was established that it has qualified and experienced personnel as well as an internal control structure comprising budgetary controls, financial management procedures, financial reporting and external audit arrangements. Given the increase in the number of sites to be financed under the additional financing, the Foundation will need to recruit an Internal Auditor to reinforce the monitoring of the use of funds by the sites.

3. Procurement

121. The procurement arrangements under the proposed additional financing will be the same as the arrangement under EP3. The existing PCU (CELCO) will retain its current responsibility for the overall procurement activities. Technical aspects of the procurement process (drafting TORs, technical specifications, evaluation) will be under the direct responsibility of implementing entities with close support from the PCU. In turn, the PCU will be responsible for carrying-out the procurement process, in compliance with the Bank guidelines and procedures.

122. Procurement under the proposed additional financing will be carried-out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA credits dated January 2011, "Guidelines: Selection and Employment of Consultants by the World Bank Borrowers" dated January 2011, "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" dated October 15, 2006 and revised in January 2011, and provisions stipulated in the Legal Agreement.

123. An assessment was conducted to ascertain that the PCU still has the capacity to conduct procurement activities. The procurement officers of the PCU and of Madagascar National Parks are still on board. However, a senior procurement staff will be recruited in order to perform and manage efficiently all procurement activities. A procurement refresher training session for project staff will be conducted. The procurement section of the Project Implementation Manual will be reviewed to reflect (i) changes relating to applicable Guidelines, (ii) introduction of NGOs and their institutional arrangements with the PCU. An 18-month consolidated

procurement plan (PCU, MNP, FAPBM, NGOs) for the additional financing has been prepared and approved by the Bank. The plan will be updated annually to reflect the latest circumstances.

124. Prior Review Threshold: Procurement of Works and Goods: Contracts of Works and Goods estimated to cost more than US\$ 100,000 per contract will be subject to prior review by IDA. All other contracts will be subject to post reviews.

125. Consultant selection: Decisions subject to Prior Review by IDA are stated in Appendix 1 to the Guidelines Selection and Employment of Consultants (January 2011). Prior review by IDA will not apply to contracts for selection of firms and individuals estimated to cost less than US\$100,000 and US\$ 50,000 respectively. However, IDA prior review will apply to terms of references of such contracts, regardless of value, to all Single Source Selections, to assignments of a critical nature as determined by IDA. Shortlists of consultants for services estimated to cost less than US\$ 100,000 may comprise entirely of national consultants.

| Expenditure category | Contract value threshold | Procurement /Selection method | Prior Review by IDA |
|-----------------------------|--|--------------------------------------|----------------------------|
| 1. Works | Equal or more than \$500,000 | ICB | All |
| | \$50,000 – \$500,000 | NCB | All above \$100,000 |
| | Less than \$50,000 | Price quotations | None |
| 2. Goods | Equal or more than \$250,000 | ICB | All |
| | \$50,000 – \$250,000 | NCB | All above \$100,000 |
| | Less than \$50,000 | Shopping | None |
| 3. Consulting services | | | |
| 3.1 Firms | Equal or more than \$100,000 and Financial Audit | QCBS | All |
| | Less than \$100,000 | QCBS, CQ | None |
| | All amount | SSS | All |
| 3.2 Individual Consultants | Equal or more than \$50,000 | ICS | All |
| | Less than \$50,000 | ICS | None |
| | All amount | SSS | All |

4. Environmental and Social Safeguards

126. In line with the safeguards arrangements approved for the parent project, the safeguard aspects will be under the direct responsibility of implementing agencies (Madagascar National Parks, NGOs, Foundation) with close support from the Project Coordination Unit. The MNP unit has an operational safeguards team on the ground in each protected area. These staffs have received training on the Bank's safeguards policies and are responsible for ongoing monitoring of income generated by the economic restoration programs. An assessment was conducted to

ascertain that the MNP still has the capacity to conduct safeguard activities. The safeguard specialists of Madagascar National Parks are still on board. A refresher safeguard training session for all implementing agencies will be conducted at the beginning of the additional financing.

Appendix 1: Financial Management and Disbursement Arrangements

127. CELCO will retain its current responsibility for the overall financial management of the project and oversight/monitoring of financial management operations of the project implementing entities (MNP and the Foundation) and the NGOs that will carry out a subset of project activities on a contractual basis - WWF, CI and WCS). CELCO has the requisite experience with the Bank Financial Management (FM) procedures and requirements. The FM arrangements of the Additional Financing will follow the same approach as the implementation arrangements in place for the ongoing phase of the project and are considered acceptable to IDA. The Interim un-audited Financial Reports are prepared every quarter and submitted to the Bank regularly (e.g. 45 days after the end of each quarter) in a form and substance acceptable to IDA. A special investigation, commissioned by the MNP Board of Directors, revealed that an amount of AR 525 million (equivalent to US\$259,000) could not be accounted for by the Antsiranana Regional Directorate. Following the receipt of the report by the Bank, disbursements to the project were informally suspended subject to the reimbursement of the misappropriated amounts. The monies in question were fully reimbursed to the Bank in February 2011. As indicated below, MNP has instituted measures aimed at enhancing internal controls and internal audit procedures in order to prevent and detect future instances of fraud. The FM performance of the project was rated **moderately satisfactory** following the last implementation support mission conducted in February 2011 and there is no overdue external audit report. The overall financial management risk rating is **medium risk, high impact**.

- (a) **Staffing:** The FM aspects of the additional financing will be handled by the current FM team of CELCO headed by an experienced and qualified Finance and Administration Director. The current FM staffing arrangements are deemed acceptable to IDA and no additional staff will be recruited. The project implementing entities are also appropriately staffed with qualified and experienced financial management personnel who will receive guidance from CELCO regarding all FM matters.
- (b) **Budgeting and planning:** The preparation and approval procedures of the annual work program and budget will follow the same arrangements currently in place and in compliance with the FM procedures manual. CELCO will provide guidance to all implementing agencies regarding inputs required for the comprehensive budgeting process and the project's budgetary control requirements. The new Project Steering Committee will enhance the budget approval process and reinforce the monitoring of adherence to budgets.
- (c) **Accounting software:** The project will continue to use the existing TOMPRO accounting software. CELCO will use the accounting software as a basis for preparation and consolidation of the quarterly interim financial reports and the annual financial statements.
- (d) **Internal controls/FM procedures manual:** The existing FM procedures manual is deemed acceptable to IDA and will be used for the additional financing. CELCO will periodically review the manual over the project life to ensure its continued adequacy and

will also ensure that all implementing entities comply with the requirements set out therein.

- (e) **Internal audit:** The internal audit function within CELCO has only one staff member. The function will need to be reinforced through the recruitment of an additional internal auditor to ensure improved coverage of all activities and implementing entities that will receive project financing. The CELCO internal audit unit will also prepare quarterly reports for submission to the Project Steering Committee. With specific regards to Madagascar National Parks, the creation of the Board audit committee headed by a Chartered Accountant and the reinforcement of annual internal audit planning and reporting arrangements are expected to act as mitigation measures given the fraud cases identified by the 2010 special audit. CELCO will review all MNP internal audit reports and undertake additional reviews as may be deemed necessary to ensure that Bank funds are utilized for the intended purpose.
- (f) **Financial reporting:** The current content and format of the consolidated Interim Financial Reports are deemed acceptable to IDA. The Interim Financial Reports of the additional financing will use the same format and content and will be prepared every quarter and submitted to the Bank (e.g. 45 days after the end of each quarter) in a form and substance that comply with IDA Financial Management requirements. The project implementing entities will be required to submit financial reports to CELCO in a timely manner to ensure compliance with the stipulated deadlines. At the end of each fiscal year, the project will prepare consolidated annual financial statements using the format for the existing project. There is no overdue Interim Financial Report at the time of the preparation of the Project Paper for this additional financing.
- (g) **Flows of Funds - Designated Account.** The PCU will open a new Designated Account denominated in US Dollars for the IDA additional financing to pay for project expenditures eligible for IDA financing. Interest income received from the Designated account will be deposited into the project account in accordance with Madagascar's accounting regulations. Additional advances to the Designated Account will be made on a monthly basis against withdrawal applications supported by Statements of Expenditures and other documents as specified in the Disbursement Letter.
- (h) **Disbursement arrangements.** Upon additional financing effectiveness, transaction-based disbursements will be used as for the ongoing the project. An initial advance up to the ceiling of the Designated Account for the IDA funds and representing four months forecasted project expenditures paid through the Designated Account will be made into the designated account and subsequent disbursements will be made on a monthly basis against submission of Statement of Expenditure and other supporting documents as specified in the Disbursement Letter. The GEF funds will be disbursed by a single withdrawal request.

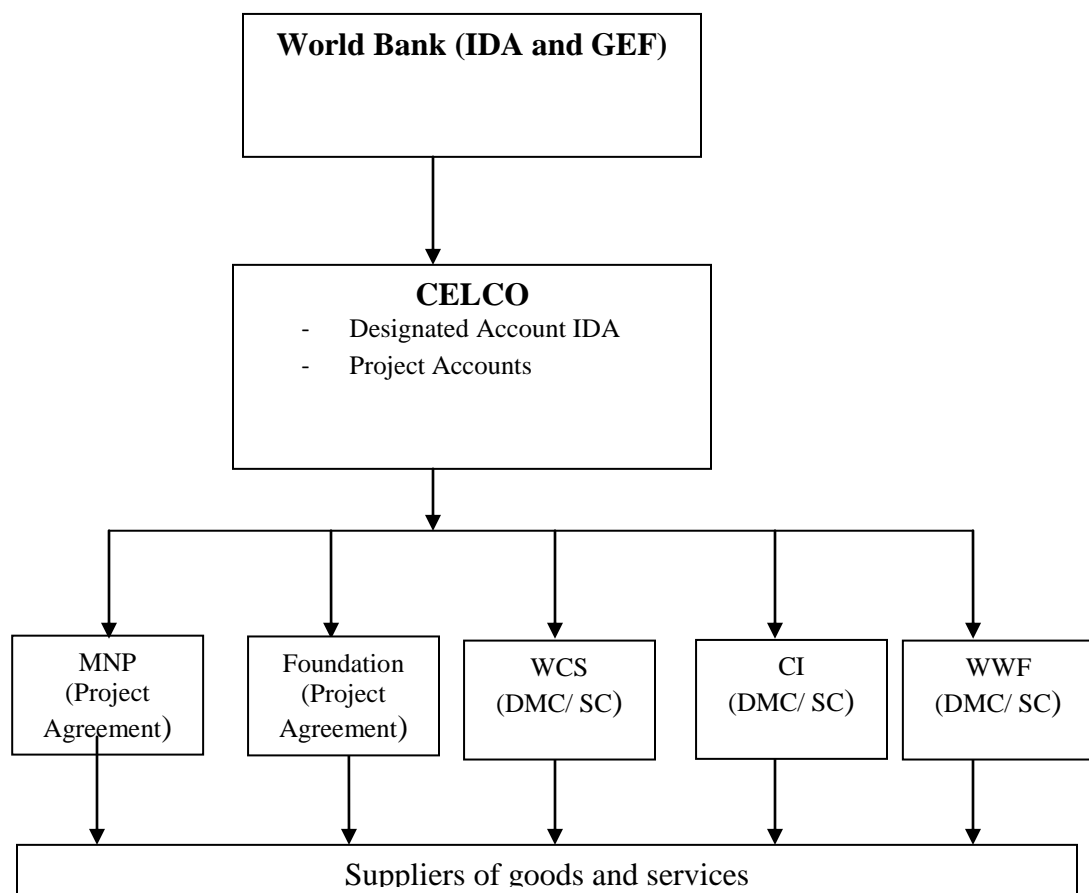
The credit can be disbursed on the basis of Statement of Expenditures for reimbursements as well as replenishments to the Designated Account. All expenditures that according to the procurement plan require prior Bank approval will need to be fully documented. In addition to the "advance" method, the option of disbursing the funds through direct payments to a third party, for contracts above a pre-determined threshold for eligible expenditures (as stipulated in the Disbursement Letter), will also be available. Another acceptable method of withdrawing proceeds from the IDA credit is the special commitment method whereby IDA will issue a commitment letter to a commercial Bank

for reimbursement of eligible expenditures to be paid by the Recipient under an irrevocable Letter of Credit.

The credit will disburse 100 percent of eligible expenditures (inclusive of taxes). The proceeds of the credit have been allocated as follows:

| Category Description | Amount Allocated (SDR) in millions | Percentage of expenditure to be financed (inclusive of taxes) |
|------------------------------|------------------------------------|---|
| Works | 2.85 | 100% |
| Goods | 0.9 | 100% |
| Consulting Services | 16.6 | 100% |
| Operating Costs | 1.0 | 100% |
| Sub-grants (ESIA Mitigation) | 3.15 | 100% of amounts disbursed |
| Unallocated | 1.5 | 100% |
| Total | 26,000,000 | |

Figure A5.1: Funds Flow Diagram



DMC = Delegated management contract; SC = Service contract

128. **Disbursement of Funds to Implementing Agencies, Service Providers, Contractors and Suppliers.** CELCO will make disbursements to implementing agencies, service providers', contractors and suppliers of goods and services for specified activities under the additional financing and will follow the same arrangements as those under the current project. Payments will be made on the basis of the terms and conditions of each contract. All implementing agencies will maintain separate non-commingled local currency accounts into which project funds will be remitted from the Designated Account managed by the PCU.

129. **External Audit:** The additional financing audit arrangements will be similar to the ongoing initial project: project accounts will be audited annually and report submitted to IDA no later than 6 months after the end of each year. The Terms of Reference of the project external auditor will be updated taking into account the additional financing aspects (the involvement of new implementing entities) no later than 3 months following the additional financing effectiveness. At the time of the preparation of this Project Paper, there is no overdue audit report for the project or the sector. The 2009 audit report of the project accounts had a clean audit opinion with an emphasis of matter relating to the case lodged by MNP before the courts of law arising from the fraud and irregularities committed at the Antsiranana Regional Directorate. MNP has taken steps to implement remedial measures to prevent and detect fraud. These measures include the new requirement that all transactions at regional level in excess of AR5million have to be pre-approved by the MNP Director General's Office and the streamlining of the MNP internal audit function by assigning an internal auditor to each regional office. The additional financing will comply with the Bank disclosure policy of audit reports (e.g. make publicly available, promptly after receipt of all final financial audit reports (including qualified audit reports) and place the information provided on the official website within one month of the report being accepted as final by the team

130. **Supervision plan:** Based on the current overall residual FM risk, the project will be supervised twice a year, in addition to routine desk-based reviews, to ensure that project FM arrangements operate as intended and that funds are used efficiently for the intended purposes.

131. **FM Risk assessment and mitigation.** The Bank's principal concern is to ensure that project funds are used economically and efficiently for the intended purpose. Assessment of the risks that the project funds will not be appropriately used is an important part of the financial management assessment work. The risk features comprise two elements: (i) the risk associated to the project as a whole (inherent risk), and (ii) the risk linked to a weak control environment of the project implementation (control risk). The content of these risks is described below:

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Conditions for Effectiveness (Y/N) | Residual Risk |
|---|--------------------|--|---|----------------------|
| Inherent risk | M-I | | | M-I |
| Country level The PEFA reports identified critical PFM weaknesses at central and decentralized levels | M-I | The implementation of PFM reform has substantially slowed down owing to the limited donor engagement with the de facto government. The continued use of a standalone PIU – PCU will mitigate these weaknesses. | N | M-I |
| Entity level | M-I | The PCU's capacity will be | N | M-I |

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Conditions for Effectiveness (Y/N) | Residual Risk |
|--|--------------------|--|---|----------------------|
| Inadequate monitoring of implementing agencies could lead to inappropriate use of resources | | strengthened through the provision of technical assistance and the monitoring of resource utilization. | | |
| Project level The resources of the project may not reach all beneficiaries and used for the intended purposes. | M-I | The PCU will strengthen ex-ante and ex-post control of funds. The internal audit unit will be reinforced to enable closer monitoring of internal control adequacy across the project and implementing agencies. | N | M-I |
| Control Risk | M-I | | | M-I |
| Budgeting: weak budgetary execution and control leading to budgetary overruns or inappropriate use of project funds. | M-L | The FM procedures manual spells out the budgeting and budgetary control arrangements which are deemed adequate. The new Project Steering Committee will have overall budget oversight. | N | M-L |
| Accounting : increase of the FM team workload leading to some delays | M-I | The current FM staffing arrangement is deemed appropriate. There is no need to increase FM staff. | N | M-I |
| Internal Control: Specific aspects of the additional financing may not be applied or reflected in the FM procedures manual; | M-I | The FM Procedures Manual will be reviewed to ensure continuing adequacy given the changes in the project envisaged under the additional financing. | N | M-I |
| Funds Flow: Risk of misused and inefficient use of funds and delays in transfer and justification of advances made to Implementing Agencies; | M-I | The rigorous review of work plans submitted by implementing agencies will be a key role of the PCU. Internal audit reviews of implementing agencies will also mitigate the risk of the use of funds for unintended purposes. | N | M-I |
| Financial Reporting Delay in submission of Interim Financial Report; format and content of the Interim Financial Report may not meet Bank requirements | M-L | (i) A computerized accounting system in place and adequate FM staffing arrangements in place; (ii) the PCU will provide guidance to all new implementing agencies regarding financial reporting requirements | N | M-L |
| Auditing: Delays in submission of audit reports or delays in implementing the recommendations of the management letter. | M-L | Auditing arrangements will remain unchanged and the external audit will cover all implementing agencies. | N | M-L |
| Governance and Accountability Possibility of colluding practices as bribes, abuse of | M-I | Robust FM arrangements (including the recruitment of an additional internal auditor, the comprehensive annual audit of project accounts | | M-I |

| Risk | Risk Rating | Risk Mitigating Measures Incorporated into Project Design | Conditions for Effectiveness (Y/N) | Residual Risk |
|--|--------------------|--|---|----------------------|
| administrative & political positions, mis-procurement and misuse of funds etc, are a critical issue. | | including the implementing agencies (IA), prior review of funds requests submitted by IA, Bank FM supervision including review of transactions and asset verification) designed to mitigate the fiduciary risks in addition to the PCU overall internal control systems. | | |
| OVERALL FM RISK | M-I | | | M-I |

132. The overall FM risk rating taking into account the mitigation measures is deemed Medium Risk, High Impact.

Financial Management Action Plan

133. The Financial Management Action Plan described below has been developed to mitigate the overall financial management risks.

| Issue | Remedial action recommended | Responsible entity | Completion date | Effectiveness Conditions |
|-------------------|---|---------------------------|----------------------------------|---------------------------------|
| Internal auditing | Recruitment of an additional qualified and experienced Internal Auditor within CELCO | CELCO | 3 months following effectiveness | No |
| External auditing | Revision of the ToRs of the current external auditors to reflect the additional financing and the new implementing agencies | CELCO | 3 months following effectiveness | No |

List of conditionality and covenants

(i) FM effectiveness conditions: There is no FM condition of effectiveness

(ii) Financial covenants/ dated covenants:

- Recruitment of an additional qualified and experienced Internal Auditor within the PCU within 3 months of additional financing effectiveness
- Revision of the ToRs of the current external auditors to reflect the additional financing requirements and the new implementing agencies within three months of additional financing effectiveness

(iii) Other FM standard covenants:

- Interim Financial Reports will be prepared on a quarterly basis and, submitted to the Bank 45 days after each quarter
- Annual detailed work program and budget including disbursement forecasts will be prepared each year by end of December
- The overall FM system will be maintained operational during the project's entire life in accordance with sound accounting practices.

Annex 6: Economic and Financial Analysis

1. The Additional Financing

134. The project will protect 30 national parks and 3 forestry corridors covering 2.7 million hectares. It will finance surveillance/management of these 33 protected areas, compensate 100,000 households for restricted access to protected areas and develop three alternative sources of funding for managing the 33 protected areas: eco-tourism, carbon finance and the endowment fund. A critical question is whether it makes sense for a poor country such as Madagascar to devote resources to the effort of creating and maintaining national parks and forestry corridors.

2. Economic Costs

135. Madagascar’s protected areas impose costs—including direct, out-of-pocket costs for investment and management, and opportunity costs from forgone uses of the land or sea placed under protection.

136. The economic cost of the project is composed of (i) the full base cost of the project activities without taxes²⁰; (ii) physical contingencies²¹ that represent real costs and, unlike price contingencies, are included in project economic costs; (iii) incremental recurrent costs; and (iv) the opportunity cost of preserving 2.7 million hectares of ecosystems.

137. Items (i) and (ii) are taken from COSTAB (see project files). The incremental recurrent costs differ among activities: some have recurrent costs, such as investments in infrastructure, while others, such as technical studies, have no recurrent costs. The main recurrent cost by far is the surveillance of the 30 national parks. It will cost around \$1.4 per hectare after the completion of the additional financing or \$3.8 million per year.

138. Lost economic opportunities in local communities owing to protected area establishment and surveillance include revenues associated with natural forest conversion through slash and burn agriculture (*tavy*) to produce rice, non-sustainable fuelwood harvesting, and non-timber forest product (NTFP) collection. The opportunity cost is as a proxy assimilated to the economic cost of Component B, which is \$9.3 million in net present value.

Table A6.1: Project Investment and Recurrent Costs (US\$ Million)

| Components and Costs | PV (US\$ Million) | 2012 | 2013 | 2014 | 2015-26 |
|--|-------------------|---------------|---------------|--------------|---------------|
| Protected Areas and Landscape Management | \$28.6 | \$5.1 | \$4.6 | \$4.1 | \$39.4 |
| Local Community Support and Development | \$9.3 | \$2.1 | \$4.0 | \$2.5 | \$5.2 |
| Sustainable Financing Mechanisms | \$14.9 | \$11.8 | \$2.8 | \$0.9 | \$2.7 |
| Project Management | \$2.7 | \$0.8 | \$0.6 | \$0.6 | \$2.6 |
| Physical contingencies | \$1.5 | \$0.6 | \$0.8 | \$0.5 | \$0.0 |
| Total | \$57.2 | \$20.4 | \$12.7 | \$8.6 | \$49.8 |
| Recurrent Costs | \$21.6 | \$0.0 | \$0.0 | \$0.0 | \$49.8 |

²⁰ Taxes as well as subsidies are transfer payments, not economic costs. When looking at the project from a society’s viewpoint, a tax for the project entity is an income for the government.

²¹ Physical contingencies represent an amount of US\$2.2 million, or 5 percent of the total investment cost of the project.

139. The economic costs of project objective achievement are summarized for 30 parks and the 3 forestry corridors in Table A6.1 above, which also shows the contribution of each of the major cost categories to the calculated aggregate present value of the project economic cost. The calculations assume a real discount rate of 10 percent, a total life of public investment of 15 years, and use of foreign currency (US\$) at the border price level.

140. In total, the present value of the additional financing economic costs will be US\$57.2 million of which US\$35.6 million represent investment costs (62 percent) and US\$21.6 million represent recurrent costs (38 percent). 75 percent of recurrent costs have their origin in Component A and more particularly in Activity A.1: Protected area surveillance. The bulk of the total economic cost resides also in the Component A: Protected area and landscape management, which accounts for 50 percent of the project economic cost's present value. Investment in local communities and development (Component B) represents 26 percent of the project economic cost's present value, while costs of project management and physical contingencies represent 7 percent. If the contribution to the capital of the endowment is not counted, the sustainable financing mechanisms' component (Component C) represents 9 percent of the project economic cost's present value.

3. Economic Benefits

141. Madagascar's protected areas provide three types of benefits: revenues from ecotourism (taxes and salaries); ecological services such as watershed protection and carbon sequestration; and the conservation of biodiversity (vegetal and animal species that are found nowhere else). This ordering of benefits also represents a generally decreased degree of tangibility and hence measurability of benefits.

142. Without the additional financing, there will be a rapid degradation of surveillance in 30 national parks, and no compensation of local communities for access restriction. The consequence of weak surveillance and no compensation will be a resurgence of slash and burn agriculture at a rate comparable to the one observed outside national parks (0.53 percent per hectare and per year). The consequences of slash and burn agriculture will be increased siltation in downstream irrigation perimeters and a reduction in water supply quality in towns and no emissions reduction credits for avoided deforestation in the 3 forestry corridors. In addition, there will be a progressive slowdown of tourists' visits to national parks and no revenues from the endowment fund that can be attributed to the project.

143. With the additional financing, it is anticipated that the number of tourists in the 10 most visited national parks financed by the project will grow at the end of the project and that a fraction of these additional tourists will spend more during their stay in parks because they are proposed new activities or because they stay longer. It is also anticipated that the country will access carbon funds (in anticipation of the carbon market) for avoided deforestation in the three forestry corridors and that the net revenues from the IDA GEF capital of the Foundation will be used to finance 10 out of the 30 national parks. Finally, the absence of resurgence of slash and burn activities in all protected areas will prevent additional siltation in the downstream perimeters and deterioration of water quality in downstream towns for protected areas with hydrological values.

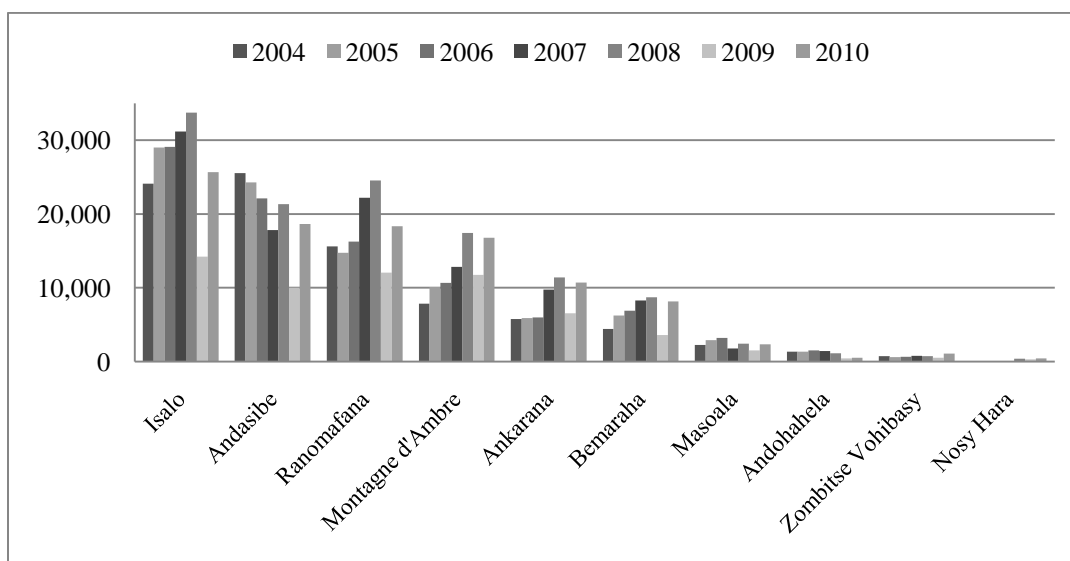
Ecotourism Benefits

144. The tourism potential of Madagascar is well recognized with nature-based tourism the leading sub-sector, followed by resort and beach tourism. The country has a high rate of return

visitors and a relatively long average stay duration indicating its inherent attractiveness to tourists. The country’s protected areas and biodiversity are the biggest attraction for visitors with a 2000 visitor survey concluding that over half of the tourists visiting Madagascar do so to take part in ecotourism activities. Lemurs are the biggest draw-card, followed by birds and increasingly coral reefs as coastal tourism infrastructure is developed. The North and the South of Madagascar are amongst the tourism focal points. In 2010, around 110,000 tourists visited 10 national parks, not far from the maximum of 130,000 reached in 2008 before the political crisis. 95 percent of these visits happened in national parks financed by EP3. The five remaining percent are visitors to four parks financed by KfW: Ankarafantsika, Andringitra, Marojejy and Tsimanampetsotsa.

145. From 2004 to 2010, six national parks, all of which are supported by the EP3 attracted nearly 80% of tourists: Isalo, Andasibe, Ranomafana, Montagne d’Ambre, Ankarana, and Bemaraha. At least four other national parks have untapped ecotourism potential: Masoala, Andohalela, Zombitze and Nosy Hara.

Figure A6.1: Number of Visitors in National Parks Supported by EP3



146. Because nature tourism²² is based upon scarce natural resources, it generates economic rents. These rents will generally be proportional to the uniqueness of the tourism asset, being fairly low for sun-sand-and-sea destinations, therefore, but potentially very high for ecotourism destinations. If governments as the owners of natural resources are not making efforts to capture tourism rents, then the rents end up in the hands of the private sector (not necessarily a bad thing if rents remain within the country) or remain in the pockets of the tourist (that is, the tourists’ full “willingness to pay” to enjoy nature is not being tapped). Rents can be captured in a variety of ways, including through entrance fees, airport and visa fees, and hotel taxes.

147. Fees currently charged for visits to protected areas in Madagascar are Ariary 20,000/day for foreigners (approximately US\$10) and Ariary 500/day for nationals (approximately US\$0.20). Total revenues from entrance fees amounted to US\$1.05 million in 2010, which

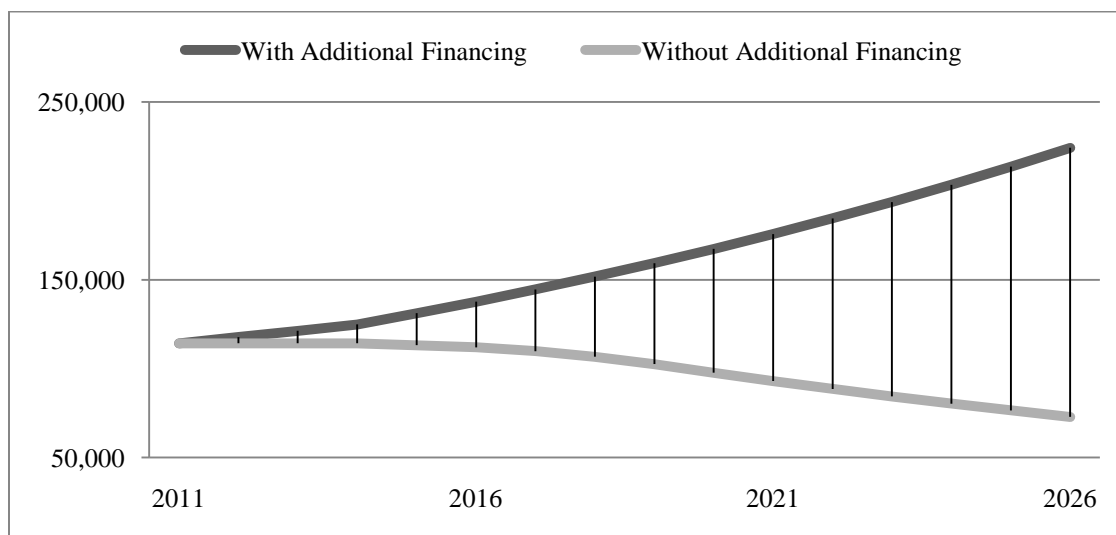
²² This analyses are drawn from the Public Expenditure Review carried out after EP3 and published by Hamilton and Carret in the Madagascar Public Expenditure Review World Bank, 2006.

means an average entry fee of US\$10 per visit. Review of the environmental valuation literature for Madagascar shows that foreign visitors are willing to pay (WTP) higher amounts than the fees currently charged for visits at national parks if the experience is improved.

148. There are two primary sources of fiscal revenues from tourists arising outside the national parks system – visa fees and hotel taxes. Visa fees are currently set at \$20 per visit (for visas obtained outside the country; visas obtained on arrival have no cost), while the nightly hotel tax at three-star hotels is set at \$0.50. In 2010, visas fees and hotel taxes generated US\$ 2.4 million.

149. In addition to fiscal revenues, visits in national parks are also generating jobs in rural areas both in the growing number of lodges that are located around the four main visited national parks and for the guides who work in associations that are independent from Madagascar National Parks. A quick survey of jobs and guide services generated by tourists visiting the 10 national parks financed by EP3 in 2010 shows benefits in the order of US\$5.6 million from salaries and guide services, much more than direct and indirect fiscal revenues generated by the same visits. The number of jobs associated with these visits are significant. Each additional 100 visitors generates 7.5 jobs in the tourism industry, mainly female and located in rural areas. This is believed to be a significant social transformation in the affected areas.

Figure A6.2: Evolution of Visitors' Numbers with and without Additional Financing



150. Without the additional financing, the number of visitors in the 10 most visited protected areas financed by EP3 will remain constant during the next three years because of the deterioration of eco-tourism infrastructure and the resurgence of slash and burn agriculture. Three years after the end of additional financing, each year would see an additional decrease of 1 percent in the number of tourists because MNP will not be able to maintain its basic infrastructure and resolve conflicts around parks.

151. With the additional financing, the number of visitors will increase by 3 percent per year during the three years of implementation of the additional financing because eco-tourism infrastructure is maintained and by 5 percent after completion of the additional financing as a result of investment in infrastructure and development of public private partnership with lodges. Moreover, at completion, MNP will double the entrance fee in parks where infrastructure has been upgraded and 20 percent of the additional tourists (compared to the without additional

financing situation) will pay five times the original entrance fee to experience high end visits deep inside parks such as Masoala.

152. The economic benefit from the project is thus the tourism rent from the incremental number of tourists – i.e. the difference between the “with” and “without” additional financing scenarios - captured through entrance fees, visa fees hotel taxes and through jobs in lodges and in guides’ association.

Watershed Protection Services

153. Analyses of each watershed in Madagascar indicates obvious hydrological linkages between 12 out of 33 protected areas located upstream and at least 330,000 hectares of irrigated lands and 15 towns, with an annual 7.6 million m³ potable water consumption, situated downstream²³. Rice farmers and water consumers in urban centers, where water is supplied by rivers having their source in a protected area, are the main beneficiaries of the watershed protection service provided by the PA system. Watershed benefits can be measured as water users’ willingness to pay to avoid damages to infrastructure – siltation of irrigation systems, for example – or to increase the quality of potable water.

Table A6.2: National Parks with Hydrological Functions

| National Parks and Forestry corridors | Surface of Protected Areas (ha) | Irrigated Perimeters (ha) | Potable water (cubic Meter) |
|--|--|----------------------------------|------------------------------------|
| Ambohitantely | 5,600 | 2,616 | - |
| Andasibe Mantadia | 16,290 | 22,703 | - |
| Andohahela | 76,020 | 8,713 | 68,952 |
| Bemaraha | 157,710 | 22,615 | 1,699 |
| Mangerivola | 11,900 | 19,142 | - |
| Midongy du Sud | 192,198 | 14,907 | 12,298 |
| Montagne et Foret d'Ambre | 30,812 | 66,093 | 7,014,240 |
| Ranomafana | 41,601 | 14,557 | 42,705 |
| Tsaratana Manongarivo | 113,822 | 104,276 | 309,983 |
| Zahamena | 63,898 | 18,232 | 71,303 |
| COFAV | 290,281 | 16,479 | 6,226 |
| CAZ | 371,000 | 18,232 | 71,203 |
| Total²⁴ | 1,371,132 | 328,565 | 7,598,609 |

154. Valuing domestic benefits from watershed protection is difficult because of the limited understanding of the biophysical relation relationships involved (deforestation → change in hydrological flows → change in availability of water to irrigation → change in production of irrigated agriculture). Moreover, watershed benefits are site specific: they depend not just on physical characteristics, such as rainfall patterns and soil types, but also on the number of downstream users and how they are affected.

155. A survey conducted in the region of Maraoantsetra in the northeast of Madagascar, aimed at calculating the willingness to pay of rice farmers situated in the lowlands to avoid silting and flooding of their irrigated perimeters, shows a monetary value of \$5 per hectare of irrigated

²³ These analyses are drawn from the economic analysis carried out for EP3 and published in Carret & Loyer. 2003. *Comment financer durablement les aires protégées à Madagascar?* Agence Française de Développement. pp. 47 .

²⁴ Data for the Makira forestry corridor is missing but it is common knowledge that the forests there help mitigate floods during periods of heavy rains.

perimeter, i.e. the monetary equivalent of 30 kg of paddy at farm gate prices. With forest cover in this watershed exceeding 70% of the watershed surface, this result can proxy for the benefits from preserving forest cover in protected areas.

156. Another survey of households' willingness to pay an incremental amount in order to benefit from clean and of regular flow water was conducted in Fianarantsoa. This analysis suggests an incremental WTP of \$ 0.15/m³, compared to the present price which is \$ 0.30 per m³. This study and the one for Maraoantsetra provide the basis for valuing the benefits of watershed protection by protected areas.

157. Applying these estimates of willingness to pay to prevent silting and flooding in irrigated perimeters and to obtain a steady supply of clean drinkable water to all the infrastructure affected by the protected area network (330,000 hectares of irrigated lands and 7.6 million m³ of potable water), the sum of the two willingness to pay studies cited above is \$1.3 per hectare of protected area per year (for the 33 protected areas supported by the project, of which \$0.5 relates to irrigated areas and \$0.8 to drinkable water). In total, the value of watershed protection services is US\$ 3.6 million at the completion of the additional financing (environmental degradation takes time to show its effects) and would hypothetically grow at 5 percent per year (the avoided damages are cumulative).

Endowment Fund for Biodiversity Conservation

158. Throughout the implementation of the National Environmental Action Plan from 1990 onwards, the question of the best way to capture the willingness to pay of the international community for the existence of the biodiversity was increasingly raised. Following agreement that a conservation trust fund was the most appropriate mechanisms the Madagascar Foundation for Protected Areas and Biodiversity was created in 2004, and the Malagasy government, WWF and Conservation International (CI) joined forces to for the first contribution to the new Foundation's capital. The Malagasy government's contribution came from the cancellation of the German debt and added 1.73 million Euros to the endowment fund. WWF and CI contributed US\$1 million each. Over the past 4 years, it has financed the recurrent costs of five major Madagascar National Parks protected areas through a sinking fund obtained from KfW, and will continue to do so over the next 20 years. Starting in 2011, the Foundation also funds the management costs of seven other protected areas with the annual revenues from its endowment funds.

159. The \$US10 million GEF contribution proposed under the additional financing will be an important milestone towards achieving the Foundation's self-imposed target of securing at least US\$50 million by 2012 which would generate approximately US\$2.25 million annually, thereby reducing the reliance on traditional donors' assistance. As of today, the total capital including IDA EP3 financing of US\$ 7.5 million and financing from other donors is approaching US\$ 33 million, of which US\$ 25.5 million has already been disbursed.

160. Adequate placement of the funds by the Foundation will generate perpetual annual revenues that will be used to fund the recurrent costs of protected areas. Thus, the net annual revenue of GEF and IDA contribution to the capital (net revenue of 4.5 percent/y of a total US\$ 17.5 million) would generate in the order of US\$0.8 million/year. This will happen in year 3 of the project. Year 1 and 2 will generate US\$ 0.3 million/year.

Carbon Sequestration

161. Since 2005, pilot REDD+ projects covering 1.75 million hectares of forest have been underway in Madagascar, especially in the three forestry corridors that are going to be supported by the additional financing. Sales of pre-certified carbon credits from the Makira project, managed by Wildlife Conservation Society, have generated \$US0.6 million on the voluntary market. The private sector, notably Dell and Air France, have made financial contributions (around US\$13 million in total) to the development of carbon projects in other areas of the country through collaborations with large international NGOs, namely Conservation International (in the Fandriana-Vondrozo forestry corridor) and WWF (through a program that covers five sites across an area of 500,000 ha). The BioCarbon Fund has signed a contract with the Government of Madagascar for the sale of 430,000t of carbon from the Andasibe-Zahamena forestry corridor for a total of US\$1.5 million; however, this sale is being hindered by the current political situation.

162. Revenues from the sale of carbon credits linked to reforestation activities (under the Clean Development Mechanism of the Kyoto Protocol) or avoided deforestation (on the voluntary carbon market or a future REDD+ avoided deforestation mechanism) can be an important source of funding for protected areas in Madagascar. Approximately 3.3 billion tons of carbon are present in the 9.5 million hectares of forest in Madagascar (based on an assumption of 350 t CO₂/ha). As a comparison, agriculture, the alternative land use in Madagascar stores 100 t CO₂/ha)²⁵.

163. Assuming US\$5 per ton of CO₂ and supposing that the additional financing will reduce by an additional 10 percent the current rate of deforestation estimated at 0.53 percent per year, on around 1 million hectares of forestry corridors and their surrounding forests, the reduction of emissions resulting from the additional financing could bring US\$0.6 million of carbon credits per year at the end of the additional financing.

4. Results of the Cost-Benefit Analysis

164. Because of the weakness of the available data, the cost-benefit estimates presented below are necessarily imprecise and should be considered only in terms of order of magnitude, especially for recurrent costs, but also for benefits derived from watershed protection services or carbon sequestration. For the latter, the estimates are highly conservative given the absence of data.

Table A6.3: Summary of Benefits and Costs, Present Values as of 2010 (US\$ Million)

| Benefits per type | PV (US\$ Million) | 2012 | 2013 | 2014 | 2015-26 |
|---|--------------------------|-----------------|-----------------|----------------|----------------|
| Ecotourism | \$37.8 | \$0.3 | \$0.6 | \$0.9 | \$102.8 |
| Watershed Protection | \$27.2 | \$0.0 | \$0.0 | \$3.6 | \$60.6 |
| Endowment Fund | \$5.2 | \$0.3 | \$0.6 | \$0.8 | \$9.1 |
| Carbon Sequestration | \$3.3 | \$0.0 | \$0.0 | \$0.0 | \$7.8 |
| Project Cost (investment and recurrent) | (\$57.2) | (\$20.4) | (\$12.7) | (\$8.6) | (\$49.8) |
| Net Present Value (ERR =15.7%) | \$16.3 | (\$19.8) | (\$11.6) | (\$3.3) | \$130.5 |

²⁵ These data were extracted from presentations by the FCPF secretariat. They are far more conservative than the data from NGOs working in carbon finance in Madagascar but their use is considered to be prudent in the light of carbon stockage rates as recently calculated with LiDAR technology in Madagascar (see for example Asner G. , A universal Airborne liDAR Approach for Tropical Forest carbon Mapping2010)).

165. Using conservative estimates for the unit incremental values, the pace, and the quantity of benefits (not all environmental benefits were captured in this economic analysis), as Table A6.3 shows, the investment is likely to increase the welfare of the country by about US\$16 million (at a discount rate of 10 percent), corresponding to an economic rate of return (ERR) of 16 percent, and is, therefore, justified from this point of view.

166. The main economic benefit of the additional financing will come from eco-tourism, a national benefit: this will represent 51 percent of the total benefit, under the conservative hypothesis that the number of tourists in the national parks supported by the additional financing will not deteriorate drastically in the counterfactual situation. The beneficiaries from ecotourism are MNP, the Park Support Committees (known locally as COSAPs), and people with jobs in lodges and as guides. The benefits associated with watershed protection represent the 37 percent of the project's benefit. They are local and the beneficiaries are farmers and water users. Carbon sequestration and conservation of species, the global benefits, represent 12 percent of the additional financing's benefits. In this analysis, beneficiaries from carbon sequestration and the endowment revenues are the park managers.

167. The external variables that could influence the flow of project benefits are likely to be (i) the evolution of tourism in Indian Ocean and the evolution of nature-base tourism globally; (ii) the evolution of the climate change regime and the future of the REDD+ initiative that could maybe bring more revenues to the country; and (iii) a new international financial crisis that could significantly decrease the revenues of the Foundation's endowment fund.

168. A sensitivity analysis was carried out to test the assumptions and outcomes of the economic analysis and the switching values are summarized in Table A6.4.

Table A6.4: Presentation of Switching Values

| Variable | Switching value (percent) |
|--|----------------------------------|
| Ecotourism benefits | - 93 |
| Watershed protection benefits | - 150 |
| Protected area surveillance costs | 180 |
| Sustainable financing mechanisms costs | 420 |

169. With a switching value of – 93, ecotourism benefits have been demonstrated to be to the most important variables in the economic analysis, above watershed protection benefits (- 150), or the costs of protected area surveillance (180) and sustainable financing mechanisms (420). The economic viability of the project would be compromised if the realized economic benefits from tourism – linked to the number of tourists and their expenditure - are more than 93 less than those assumed by the economic analysis. The additional financing will aim to optimize the generation of tourism benefits but numerous factors that influence the level of such benefits are outside the control of the project itself.

5. Financial Analysis/Fiscal Impact

170. The ultimate objective for financing of the protected area network is a reduced reliance on external financing sources to ensure that in the future, a large proportion of Madagascar National Parks' and the new forestry corridor's running costs are covered by: (i) the net revenue of the Foundation; (ii) park entrance fees and other direct and indirect fiscal revenues from tourism; and (iii) carbon finance (through the voluntary carbon market and in the longer term avoided

deforestation performance payments through Reducing Emissions from Degradation and Deforestation Initiatives – REDD+).

171. The current protected area network finds itself in a precarious financing situation. After 15 years of existence, Madagascar National Parks is still highly dependent on Official Development Assistance (ODA), with 90 percent of its financing provided by a small group of donors (IDA/GEF, KfW and EC). Similarly, the development of the network of protected forestry corridors is financed externally, notably by multi-donor trust funds such as the Critical Ecosystem partnership Fund (CEPF), international NGOs, and private international foundations such as Moore or MacArthur.

172. The additional financing will facilitate a shift from the current approach of providing direct financing, to an approach that provides more proactive support for the creation of sustainable financing mechanisms. It is envisaged that such a shift will, in the medium to long term, create a sustainable revenue stream for the protected area network to cover a sizeable proportion of total costs. Recurrent costs of managing the 33 protected areas are estimated to decrease from US\$5 million at the beginning of the Additional Financing to US\$ 3 million 20 years later.

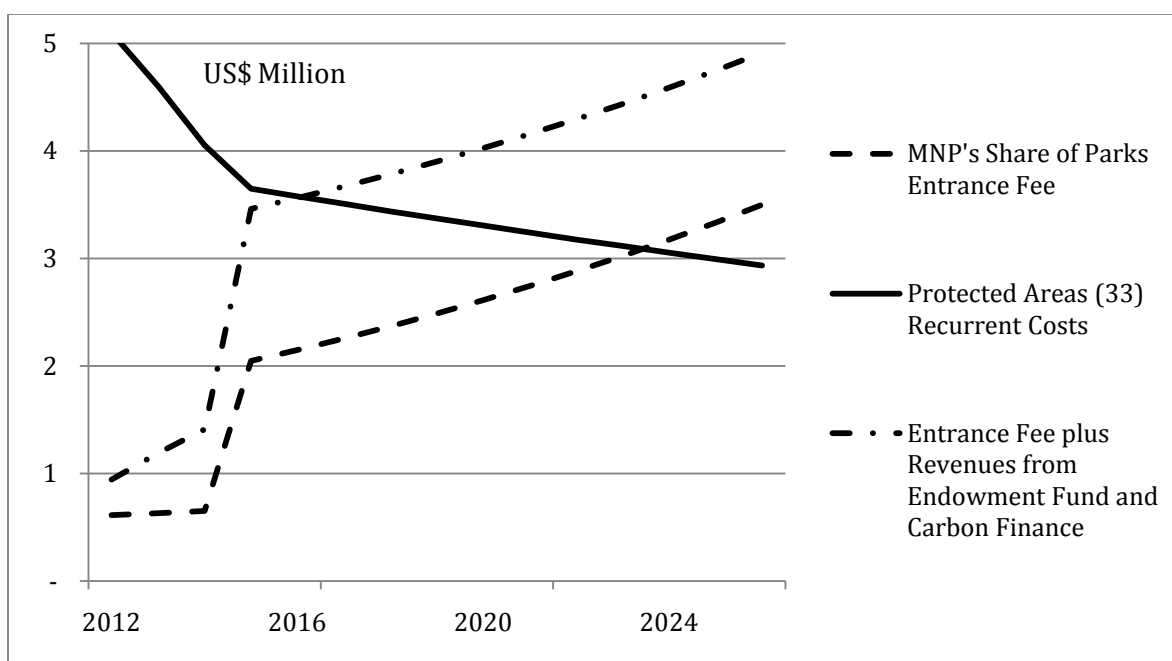


Figure A6.3: Comparison of recurrent Costs and Sources of Sustainable Revenues for the 33 Protected Areas supported by the AF

173. As a result, at the end of the additional financing (in 2015) it is expected the capitalization of the Foundation’s endowment and the piloting of carbon activities in the three forestry corridors should generate US\$1.5 million representing 39 percent of the recurrent costs of the 33 protected areas. In addition, the ecotourism revenues captured by MNP representing 50 percent of the entrance fees should be adequate to cover 59 percent of the recurrent costs of the 33 protected areas (refer graph above) if investments in ecotourism infrastructure have been made during the project and if, as a result, MNP can double the amount of entrance fee (from \$10 to \$20).

174. Moreover, Madagascar National Parks captures only a fraction of the fiscal revenues generated. The most visited national parks of Madagascar are currently generating significant tax and fee revenues for the country: US\$4 million at the beginning of the project and almost US\$ 10 million in 2025.

175. While not an argument for earmarking, this should be an important consideration in Government of Madagascar decisions regarding the development of MNP. An important consideration here is that only a small proportion of generated fiscal revenues is captured by MNP and thus potentially available for use in protected area management. The additional financing will include a study on mechanisms to capture a higher proportion of these fiscal revenues for use by MNP and other PA managers. If for some reason, the benefit from the endowment and carbon finance don't materialize at the end of the project, the different park managers will have to find \$1.5 million that could then be transferred from the indirect fiscal revenues.

176. The economic analysis also suggests that the external benefits of the protected areas system (watershed protection services) significantly outweigh the external costs (opportunity cost). However, the winners and losers are not the same households, and so there remains one of the classic problems in cost-benefit analysis of projects: how can beneficiaries compensate losers? A system of payments for environmental services in these watersheds is worth exploring, but the challenges linked to finding payment vehicles and creating institutions should not be dismissed. Moreover, levels of poverty are much higher in Madagascar than in other countries (such as Costa Rica) where payments for environmental services schemes have been implemented. Therefore, the project has adopted a strategy to compensate those households that suffer economic and financial losses as a result of the project.

Annex 7: Implementation Support Plan

MADAGASCAR: Third Environmental Support Program Project Additional Financing

177. The strategy for Implementation Support (IS) has been developed based on the nature of the additional financing and its risk profile, and aims at making implementation support to the client more flexible and efficient. Implementation support will pay special attention to the risk mitigation measures defined in the ORAF.

- **Procurement.** Implementation support will include: (i) providing training to staff in the PCU and implementing agencies; (ii) reviewing procurement documents and providing timely feedback; (iii) providing detailed guidance on the Bank's Procurement Guidelines; and (d) monitoring procurement progress against the detailed Procurement Plan.
- **Financial management.** During supervision, the Bank will review the Project's financial management system, including but not limited to, accounting, reporting, and internal controls. Particular attention will be paid to the auditing capacities of the PCU and implementing agencies to avoid a repeat of the isolated fraud case that was experienced in 2010 but that has now been successfully resolved through a full reimbursement by the Government, and fiduciary management reforms within Madagascar National Parks. Supervision will also cover a review of transactions on a random sample basis. The Bank will provide training on financial management issues to the PCU and implementing agencies.
- **Environmental and social safeguards.** The Bank team will supervise the implementation of all safeguard instruments and provide training to the PCU and implementation agencies on their safeguards related responsibilities. The Foundation's procedure manual that incorporates safeguards requirements of the Bank will be approved prior to effectiveness of the GEF grant.
- **Communication.** Implementation of a communications strategy will be important to ensure clear and coordinated communication with local and international stakeholders to manage the possibility of leaks of misinformation or generation of adverse perceptions related to the carrying out of the project in the current political context. The Strategy will be developed by the Bank's communications team.
- **Other issues.** The additional financing has been developed to work at arms length from Government due to the current political instability in the country; PCU will thus be supported to retain its autonomous position and avoid undue influence on the part of the Government. The PCU's technical capacity will be strengthened through a TA that will enhance its technical supervision capacities in line with its financial and safeguards capacities.

Implementation Support Plan

178. Implementation of the additional financing will follow the same approach as the parent project. One Madagascar based Bank staff will be the overall Task Team Leader and will play a supervision and coordination role. The TTL will liaise closely with the PCU and the project implementing agencies and will participate in joint supervision missions. Detailed inputs from the Bank team are outlined below:

- **Technical inputs.** The TTL will be a senior natural resources management or environment management specialist with solid experience in both protected area management and sustainable financing issues. Other Bank staff and/or consultants will be required to provide support on an as needed basis in areas such as biodiversity conservation and community rural development.
- **Fiduciary requirements and inputs.** Training will be provided by the Bank’s financial management specialist and procurement specialist before commencement of Project implementation. The team will also help the Project identify capacity building needs to strengthen its financial management capacity and to improve procurement management efficiency. Both the financial management and procurement specialists will be based in country offices to provide timely support. Formal supervision on financial management and procurement will be carried out semi-annually.
- **Safeguards.** Environmental inputs will be provided by the team leader and other team members who are environmental specialists. The team will also include a national social safeguards specialist to provide timely implementation support on social aspects on a regular basis.
- **Operation.** The project TTL supported by other Bank staff and consultants will provide day to day supervision of all operational aspects, in partnership with other Bank team members, as well as coordination with the client.
- **Communications.** Communications support will be provided by a locally based communications officer supported with periodic inputs from an internationally based Senior Communications officer.

179. The main focus of implementation support per fiscal year, as well as the staff skill mix required, is summarized below:

| Time | Focus | Resource Estimate |
|-------------|--|--|
| Year 1 | Technical and procurement review of the bidding documents | Procurement specialists (6 SWs) |
| | Procurement training | |
| | FM training and supervision | FM specialists (10 SWs) |
| | Environmental and social safeguards training and supervision | Environmental and social specialist (10 SWs) |
| | Team leadership | TTL (11 SWs) |
| | Financial management disbursement and reporting | FM specialists (4 SWs) |
| | Technical input | TTL (2 SW) |
| | | Environmental specialist (2 SW) |
| | | Social specialist (2 SW) |
| | | Rural development specialist (2 SW) |
| | Communications | Senior communications specialist (2 SW) |

| Time | Focus | Resource Estimate |
|-------------|---|--|
| | | Communications specialist (4 SW) |
| Year 2 | Procurement supervision | Procurement specialists (3 SWs) |
| | FM supervision | FM specialists (3 SWs) |
| | Environmental and social safeguards supervision | Environmental and social specialist (6 SWs) |
| | Team leadership | TTL (11 SWs) |
| | Financial management disbursement and reporting | FM specialists (4 SWs) |
| | Technical input | TTL (2 SW) Environmental specialist (2 SW) Social specialist (2 SW) Rural development specialist (2 SW) |
| | Communications | Communications specialist (2 SW) |
| Year 3 | Procurement supervision | Procurement specialists (3 SWs) |
| | FM supervision | FM specialists (3 SWs) |
| | Environmental and social safeguards supervision | Environmental and social specialist (6 SWs) |
| | Team leadership | TTL (11 SWs) |
| | Financial management disbursement and reporting | FM specialists (4 SWs) |
| | Technical input | TTL (2 SW) Environmental specialist (2 SW) Social specialist (2 SW) Rural development specialist (2 SW) |
| | Communications | Communications specialist (4 SW) |

Annex 8: Social Safeguards Implementation in EP3

180. The early stages of the Madagascar Environmental Program (Phases 1 and 2 known as EP1 and EP2 between 1991 and 2003) were implemented without due care for social safeguards which were not formally defined for the purpose of the establishment of new Protected Areas (PAs). The Malagasy forestry administration applied its own rules on assessment of losses of affected populations and compensation schemes. Protected area creation under EP1 and EP2 was often included in an integrated development-conservation approach that supported local development. Beneficiaries were not clearly identified on the basis of pre-defined eligibility criteria and those most adversely affected by the establishment of new protected areas did not benefit from compensation schemes. In 2004, Madagascar Government issued new environmental impact assessment regulations (the MECIE) that strengthened requirements for environmental and social impact assessment but did not contain clear and explicit requirements for application of social safeguards to mitigate negative social impacts from the creation or extension of protected areas.

181. The parent project EP3 triggered four safeguard policies: OP 4.01 Environmental Assessment, OP 4.04 Natural Habitat, OP 4.12 Involuntary Resettlement and OP 4.10 Indigenous Peoples. The Government committed itself to the principle of "parks with people" and no physical displacement therefore required under the parent project. The project safeguard instruments that were developed for EP3 include an Environmental Assessment, and an Environmental and Social Management Framework (ESMF) in compliance with OP 4.01, a Process Framework (PF) in accordance with OP 4.12 to be applied for all new PAs established under EP 3 to provide compensation for loss of access and livelihoods within newly established PAs, and an Indigenous Peoples Development Plan (IPDP) consistent with OD 4.20 (since EP3 was approved before the issuance of OP 4.10) where a framework was provided to further design an Indigenous People's Development Plan. These safeguard instruments were endorsed by the Bank and disclosed in the Country and Infoshop in 2003.

182. Notwithstanding the above, at the mid-term review of the EP3 in 2007, it became apparent that OP 4.12 and OD 4.20 had not been fully complied with due to of lack of funding, delays in preparing the Mikea Indigenous People's Development Plan, and the award of minerals exploration and exploitation permits to foreign companies, which jeopardized the plan to establish a PA in Mikea Forest and protect the livelihood of the Mikea peoples.

183. The restructured EP3 which followed the mid-term review recognized communities living within areas newly declared as PAs and their buffer zones as affected communities because of restriction of access to the natural resources of these PAs. A model Process Framework (PF) was prepared, disclosed and adopted in 2007. This PF was prepared through a highly participatory and inclusive process with all donors and NGOs within the environmental sector. The model PF was used to develop PFs for each PA. PFs were disclosed to affected communities and persons who were granted opportunities to express their views and comments on the situation created by the establishment of the PAs and impacts on their livelihoods. Discussions and participatory workshops were organized and held in local languages.

184. As material and tangible outcome of the PF-guided highly participatory consultation process, a comprehensive Social and Environmental Safeguards Plan (SESP) was developed and adopted to address all actual and potential impacts of the establishment of PAs on the livelihoods of the neighboring communities. Five newly created protected areas and six protected area

extensions and their neighboring communities benefitted from that process. The eleven social safeguards plans that have been developed surveyed 26,000 affected households that will receive compensation. Typically, a SESP describes, among other items:

- The objectives and methodology of the SESP
- Description of the EP 3 and its legal and institutional framework
- Description of the Protected Area, including its buffer zone
- Public consultation and stakeholders' participation mechanisms
- Identification of Project Affected Persons (PAPs) and eligibility criteria
- Impacts of the establishment of the PA and nature of the restrictions of access to its natural resources
- Livelihood restoration and improvement
- Implementation measures and processes
- Supervision and monitoring mechanisms and indicators
- Grievance and dispute resolution mechanisms
- Disclosure of the SESP

185. The process through which potentially affected groups or communities are to participate in defining and determining restrictions and how measures to assist potential PAPs will be identified and selected is well defined including methods of participation and decision-making (for example, open meetings, selection of leaders or councils and so forth). After the SESP were adopted for each PA, local NGOs were contracted to work with local communities to identify and implement sub-projects to at least restore, if not improve, communities' livelihoods and address all negative impacts of the establishment of PAs.

186. The SESP were submitted for approval, reviewed by the team members who provided comments to improve them and in their final version these plans were forwarded to the Bank for clearance. The revised SESP were reviewed by the Bank's Project Supervision Team Members and discussed, at different stages, with the PCU and DGF, consultants who contributed in their preparation and NGOs active in conservation in Madagascar. All eleven plans have been disclosed.

187. The 11 plans were prepared by independent consultants prior to the definitive creation or extension of protected areas by a decree adopted by the Ministry of Environment (refer Table A8.1). The implementation of compensation subprojects has started around 10 PAs, while the implementation around the remaining COFAV forestry corridor is expected to start in June 2011. These safeguard documents, which have been approved by the Bank and disclosed, have been adopted by MNP to facilitate implementation of mitigation measures and economic restoration programs to local communities affected by the creation of protected areas. The ten SESP are under implementation through local NGOs working with affected communities with an overall satisfactory outcome so far. These activities will need to be closely monitored in order to ensure their outcomes' sustainability and strengthen community's capacity to market the products of the subprojects they received as compensation under the relevant SESP. The MNP unit has an operational safeguard team on the ground in each protected area. These staffs have received training on the Bank's safeguards policies and are responsible for ongoing monitoring of income generated by the economic restoration programs. Thus, while application of safeguards around MNP protected areas where IDA / GEF is the main donor, has progressed smoothly, application

of safeguards around the COFAV forestry corridors and other forestry corridors where NGOs play a leading role, require additional capacity building and consultation.

Table A8.1: Social Safeguards Plans prepared under EP3

| Protected Area | Area (ha) | Type of Plan* | Number of Households Affected | Amount for Plan Implementation (US\$) |
|--|------------------|----------------------|--------------------------------------|--|
| Mikea | 184,639 | SESP | 6 256 | 651 769 |
| Mikea | | IPDP | 180 | 130 000 |
| Sahamalaza/Ile Radama | 24,087 | SESP | 3 005 | 346 033 |
| Montagne d'Ambre (extension) | 28,658 | SESP | 1 270 | 131 961 |
| Nosy Hara | 125,522 | SESP | 641 | 90 720 |
| Manongarivo (extension) | 51,567 | SESP | 556 | 59 807 |
| Ambatovaky (extension) | 78,139 | SESP | 493 | 54 087 |
| Cap Sainte Marie (extension) | 6,300 | SESP | 421 | 73 916 |
| Nosy Ve Androka | 92,085 | SESP | 382 | 22 228 |
| Lokobe (extension) | 724 | SESP | 122 | 17141 |
| Tsaratanana | 49,184 | SESP | 94 | 18 584 |
| Forestry Corridor Fandriana Vondrozo (COFAV) | 318,000 | SESP | 12501 | 875524 |
| Total | 958,905 | | 25 921 | 2 471 770 |

* SESP = Social and Environmental Safeguards Plan / IPDP = Indigenous Persons Development Plan

188. The creation of the Mikea protected area in the southwest required special attention as the protected area is inhabited by the Mikea people who are considered as indigenous people with an identity linked to the forest and who rely on forest resources as a means of subsistence, even though their livelihoods are being progressively reduced through deforestation caused by the arrival of migrants practicing slash-and-burn production practices. To meet the requirements of the then OD 4.20 (now OP 4.10), an Indigenous Peoples Development Plan was prepared, approved, and disclosed in the Mikea forest zones and Infoshop in 2010 and is being implemented. This plan has shown that no access restrictions to the natural resources for the Mikea people will be caused by the creation of the protected area and that the protected area would benefit the livelihoods of the Mikea people. The Mikea peoples have maintained their habitats and livelihood within the newly created Mikea National Park. The Indigenous Peoples Development Plan is under implementation through local NGOs working with Mikea people with an overall satisfactory outcome so far.

189. The activities proposed under the additional financing are very similar to those already completed under the parent project. No new environmental risks are expected to arise under the additional financing and the proposed activities will not trigger any new safeguard policies. Therefore the safeguards Category B, remains unchanged. The safeguard documents approved by the Bank for the original project remain applicable for the proposed activities under the additional financing namely the Environmental and Social Management Framework (ESMF), the Process Framework (PF) and the Indigenous People Plan for Mikea.

190. This additional financing provides for social safeguards preparation and subproject implementation in the Makira and CAZ forestry corridors which are new PAs. A related activity

is the retrospective evaluation of social impacts for 20 PAs that were created before the preparation of the EP 3 in 2003.

191. The additional financing for EP 3 shall include activities related to: (i) auditing the outcomes of the compensation under the social safeguards plans, (ii) feed the database of monitoring indicators of socioeconomic impacts of the establishment of PAs, and (iii) developing technical standards on social safeguards development and implementation. This will be carried out in a collaborative manner by the Director General of the Protected Area Network, MNP and NGOs.

192. The safeguards requirements of the additional financing are also applicable to the activities of the Foundation. The Foundation will adopt a procedure manual which will incorporate the guidelines and principles contained in the additional financing safeguards instruments along with the Foundation's own detailed operational procedures. The approval by the Bank of such a manual following its adoption by the Foundation's Board will be a condition of the effectiveness of the GEF grant.

193. A strategic environmental and social analysis of the outcomes of the technical studies linked to carbon governance will also be carried out. The draft Terms of Reference for the strategic social and environmental analysis will be disclosed on completion of the abovementioned technical studies.

Annex 9: Incremental Cost Analysis of GEF Contribution to Foundation

Madagascar: Support to the Madagascar Foundation for Protected Areas and Biodiversity through the Additional Financing to the Third Environmental Support Program Project (EP3)

A. Background and Context

1. Madagascar's Biodiversity and Support to the Protected Area Network

194. Madagascar's biodiversity is a unique, irreplaceable global public good representing 5 percent of the world's biodiversity on just 0.4 percent of the global landmass. 99 percent of the country's amphibians, 92 percent of its reptiles, 95 percent of its mammals, 83 percent of its plant species, and 93 percent of its freshwater fish species, are found nowhere else but Madagascar. There are over 1,000 known terrestrial vertebrate species, 6,000 coral reef species, over 12,000 identified terrestrial plant species and an unknown number of un-described species. The country has been labeled the 'eighth continent' in recognition of its unparalleled biological values.

195. The creation and maintenance of a national protected area network has been recognized by the Government and international donors²⁶, including the World Bank, as a primordial means of conserving the unique values of Madagascar's biodiversity. The ambitious expansion of the protected area network since 2003 has however led to a challenging financial situation. Since its establishment nearly two decades ago, Madagascar National Parks, a semi-autonomous organization, which manages 2.4 million hectares of national parks, has not yet become financially independent and is still highly dependent on Official Development Assistance (ODA). IDA/GEF contributes the largest share, followed by KfW and the European Commission and together these donors account for 90 percent of Madagascar National Park's budget. There are also 4.5 million hectares of protected forestry corridors that are under creation in the network with the support of international NGOs on behalf of the Government. The financing for these forestry corridors is also predominantly sourced externally from NGOs, international trust funds and private Foundations.

196. It is estimated that from 2012 onwards, the annual management cost of the network could reach US\$15 million/year. Aside from ODA, other funding sources currently contribute approximately US\$3 million / year or 20 percent of the network annual cost.

197. The current financing difficulties of the protected area network will be exacerbated by the forecast closure of the EP3 in June 2011 if additional financing is not secured. Closure of the EP3 will cause the immediate suspension of surveillance and control of 28 national parks, covering two thirds of the network managed by Madagascar National Parks. The Government cannot make up the financing shortfall, nor are other donors likely to do so due to the current political instability. To address this urgent situation, the World Bank is preparing an additional financing to the EP3 (the project), which will be presented to the Bank's Board in mid-June 2011.

²⁶ Including the French, Swiss and German governments, the EC, UNDP, various international NGOs including Conservation International, the private sector including Dell and Air France, and private foundations including the Moore and MacArthur Foundations.

198. The project (additional financing) has as its overall objective the sustainable management of targeted protected areas and would have two complementary purposes: (i) continue the existing support to recurrent costs of the 29 protected areas traditionally supported by IDA/GEF and extend this support to four new protected areas where illegal logging and slash and burn activities are posing serious threats to biodiversity and/or which have potential to generate significant carbon revenues; and (ii) prepare the protected area network to become less dependent on external assistance and more financially autonomous through the development of sustainable financing mechanisms.

199. The proposed project will consist of four components: (i) Component A: Protected area and landscape management; (ii) Component B: Local community support and development; (iii) Component C: Sustainable financing mechanisms for protected areas and forestry corridors; and (iv) Component D: Project management, monitoring and evaluation. The GEF financing will provide support to Component C, a component relating to a US\$10 million endowment to the Foundation and associated technical support.

200. The Project Development Objective is to enhance the protection and sustainable management of the targeted protected areas.

201. The GEF support to the Foundation through the sub-component related to development of sustainable financing mechanisms, is to improve the sustainability of the protected area system (currently 6.9 million hectares) by providing a regular and predictable revenue source over the long term that will cover part of the system's recurrent operating costs.

2. Broad National Development Goals

202. The overriding national development goals for Madagascar as described in the national poverty reduction strategy – the Madagascar Action Plan²⁷ - relate to poverty reduction, sustainable economic growth and creation of sustainable livelihoods. The Madagascar Action Plan recognizes that these goals need to be embedded within a process of sustainable management of natural resources to ensure that the country's forests, marine ecosystems and biodiversity reach their full potential in contributing to poverty reduction and economic development.

203. Protection of biodiversity and conservation of 6 million hectares within a well-managed system of protected areas is a national priority. Commitment #7 (of 8) of the Madagascar Action Plan, or MAP is to “cherish the environment”. The first challenge associated with this commitment #7 is to “increase the protected areas for the conservation of biodiversity”. One activity proposed under this first challenge is to “mobilize the funds for the foundation” and the indicator associated with this activity is to “reach a capital of \$50 million for the endowment in 2012”. Despite the political turmoil that has reigned since late 2008 in Madagascar, the current de-facto administration has not renounced the Durban Vision and has demonstrated its commitment to the protected area network through the adoption of inter-ministerial decree in December 2010 that grants protection to the 6.9 million hectares of established national parks and protected forestry corridors that are under creation.

²⁷ The Madagascar Action Plan was prepared by the previous Government prior to the commencement of the current political situation. The Action Plan has not been denounced by the current de-facto Government and continues to be used as an informal roadmap for the nation's development priorities.

B. Scope of the Analysis

204. The protected area network in Madagascar, which is known as the *Système des Aires Protégées de Madagascar*, covers approximately 6.9 million hectares²⁸ including 2.4 million hectares of established national parks managed by Madagascar National Parks (MNP) and 4.5 million hectares of new protected areas in the form of forestry corridors that are in the process of being developed predominantly by NGOs (including Conservation International, Wildlife Conservation Society and WWF) on behalf of the Ministry of Environment and Forests. Triggered by the 2003 Presidential Declaration, known as the “Durban Vision” which undertook to triple the surface of Madagascar’s protected areas, the expansion of the network has been rapid and substantial. There are currently 144 protected areas covering 12 percent of the national territory, an increase in coverage from 2.9 percent in 2003.

205. The overall project would support 30 national parks managed by Madagascar National Parks covering 1.7 million ha and 3 protected forestry corridors managed by NGOs on behalf of the Government and covering 1 million ha. The GEF contribution to the project would target ten national parks covering 1,050,000 ha.

C. Baseline or Business as Usual Scenario

206. Under the baseline scenario, in the absence of GEF funding, the focus of project activities would be on maintaining the current approach of providing direct IDA financing to ten protected areas to cover control and surveillance costs, conservation infrastructure and equipment, and social safeguards implementation. Existing revenues from the Foundation and revenues from tourism activities in national parks would also contribute to these costs.

207. Together these financing sources would support the recurrent costs of ten national parks for a period of three years for a total of US\$5.2 million, social safeguards implementation for these national parks for a total of US\$1.9 million and the project management costs of US\$0.8 million.

208. The current political uncertainty has meant that while the Government has demonstrated its commitment to recognizing and ensuring legal protection of the national protected area network, it has negligible funds available to provide financial support to the network’s physical protection and the Government’s contribution has thus been considered to be non-existent for the purposes of the analysis. Similarly other traditional donors to the protected area network – USAID, KfW and EC – have reduced or withdrawn their support.

209. For the purposes of the analysis, the baseline costs are thus calculated to be US\$7.9 million.

D. GEF Alternative

1. GEF Incremental Activities

210. Under the GEF alternative scenario, the Foundation will receive US\$10 million in endowment funds, which will generate revenues in the order of US\$450,000/year for the protected area network and which will combine with the US\$7.5 million previously contributed by IDA to the Foundation to support the recurrent operating costs of ten national parks. Nine of the ten protected areas to be financed by the Foundation revenues are mature parks that have traditionally been supported by IDA/GEF and that are managed by Madagascar National Parks.

²⁸ These figures reflect the most recent official statistics for the protected area network surface and are taken from Decree No. 52005/2010 dated December 20, 2010.

The tenth, Masoala National Park, has not traditionally been supported by IDA/GEF but is proposed to be included in the project. The generated revenues will be tied to the funding of recurrent costs of these protected areas.

211. Under the GEF alternative scenario, the GEF contribution to the Foundation will leverage the following co-financing activities. The first of these is a series of technical assistance activities for the Foundation, which will be co-financed by IDA in the amount of US\$0.7 million, that will include technical assistance to monitor placements and evaluate funds managers, strengthen monitoring and evaluation capacities and activities, strengthen administrative resources, support fundraising efforts and purchase equipment.

212. The contribution from GEF will also not only maintain the baseline scenario activities providing direct support to the protected area network under the project, but will leverage additional co-financing from IDA to contribute to the development of complementary sustainable financing mechanisms for the network and long term community development activities. These activities would include:

- US\$2.4 million for creation of and support to grassroots community organizations in the vicinity of protected areas; and
- US\$0.3 million for support to ecotourism development.

213. Finally, the combination of increased endowment and support to strengthen the financial, safeguards and monitoring and evaluation capacities of the Foundation will leverage also co-financing in the amount of US\$19.5 million as endowment (US\$17.6 million) and revenues generated from sinking funds (US\$1.9 million) to the Foundation from KfW, AfD and Conservation International.

214. The total expenditures under the GEF Alternative scenario are thus estimated at US\$40.8 million.

215. It is noteworthy that the Foundation is currently in discussions with several other parties in relation to future endowments / sinking fund placements to the Foundation (refer Annex C). While these contributions which would amount to approximately US\$7 million cannot be considered co-financing at this time due to the preliminary nature of the negotiations, the multiplier effect of the GEF contribution could very likely play a positive influence in the realization of these contributions.

2. Value Added by GEF Funding and Global Benefits

216. The value of Madagascar's biodiversity as a global public good is undisputed as is the recognition of the international community's obligation to participate in its protection. However, Madagascar's unique biodiversity and habitats are under significant and growing threat. Traditionally, small-scale, slash and burn agriculture (*tavy*) and burning of pastureland for agricultural use were the main causes of deforestation. In recent years, growing international interest in large-scale mining and oil exploration operations have been exerting increased pressure on natural habitats. The protracted political crisis that began in 2008 is also taking a toll on Madagascar's environmental assets. Significant increases in illegal logging of precious timber have been recorded and poaching of the radiated tortoise (*Astrochelys radiata*) and the ploughshare tortoise (*Astrochelys yniphora*), the rarest tortoise in the world have increased to alarming levels. Natural resource exploitation by local communities is also on the rise due to the

economic slowdown that is disproportionately affecting the wellbeing of rural, natural resource dependent households.

217. Madagascar's protected area network is an essential tool in the protection of the global environmental benefits generated by the unique biodiversity. The network covers nearly three quarters of the remaining forest cover in the country meaning that most of Madagascar's remaining biodiversity is contained within the boundaries of the protected area network. Strong Government and donor commitment to the protected area network has seen its rapid expansion in recent years. On the back of this growth, there is now a need to ensure that this network becomes increasingly self-sustaining in terms of financing so that its protection and management is isolated from the vagaries of project cycle financing. The Foundation is a key element of the approach to achieve this autonomy that is supported by Government and donors. However, the Foundation has not been developed to be the sole source of support for the network and its operation must be complemented by other sustainable financing mechanisms, notably ecotourism and carbon related revenues through avoided deforestation activities.

218. By supporting the Foundation, the GEF alternative would enhance the protection of these global environmental benefits by: (i) increasing the capital of the Foundation by an amount of US\$27.6 million (US\$10 million from GEF and US\$17.6 million from KfW, AfD and Conservation International) thereby generating an additional US\$1.2 million/year of revenues for protected area management; (ii) increasing the attractiveness of the Foundation for future donors through strengthening of the fiduciary management, monitoring and evaluation and safeguards systems of the Foundation – US\$7 million of contributions are currently under discussion between the Foundation and donors including UNESCO, Government of Norway, and UNDP; and (iii) triggering co-financing in the amount of \$US11.3 million from IDA to develop complementary sustainable financing and management mechanisms for the protected area network.

219. In the long-term, the Foundation will aim to become an important channel of funding for conservation activities, including potential money that would come from carbon finance activities and green taxes. By strengthening the credibility and systems of the Foundation, the GEF alternative thus promotes this longer-term role, which would further enhance the availability of sustainable financing sources for the network.

220. Without the GEF alternative, the risks of serious or irreversible losses of Madagascar's biodiversity would be increased due to funding shortfalls and lack of long-term certainty in funding sources for the protected area network.

221. Madagascar represents one twentieth of the world's biodiversity but just one ten thousandth of the global GDP. Thus, for an economically poor country such as Madagascar the potential for the GEF alternative to generate domestic benefits is also vitally important. Such domestic benefits relate to the goods and services that are provided directly and indirectly by protected areas including hydrological and soil retention services; tourism attractions; and support to nationally important economic activities such as fisheries.

3. Fit with GEF Strategic Priorities

222. The project is consistent with GEF Strategic Objective 1 – To catalyze sustainability of protected area systems and GEF Strategic Program 1 – Sustainable financing of protected area systems at the national level. Country level conservation trust funds are recognized by GEF as

an effective mechanism for generating and delivering revenues to support protected areas and nowhere is this more relevant than in a mega-diverse country such as Madagascar that has demonstrated a willingness to significantly expand its protected area network but that is struggling to find sustainable sources of financing. The Foundation will help to will help to ensure sustainability of the protected area system by providing a regular and predictable revenue source over the long term. The Foundation will address financing of protected areas at the system-level and ensure that investments are focused on biodiversity issues. The GEF contribution to the Foundation will generate funds that support nearly one third of the protected area network managed by Madagascar National Parks and will ensure that previous IDA/GEF investments in Madagascar's protected area network are protected and capitalized.

223. The project will also significantly help Madagascar to fulfill one of its objectives regarding the convention on biological diversity. Guidelines and decisions of a number of CBD Conferences of Parties have raised the need to promote economic mechanisms for financing biodiversity conservation. Notably, the meeting of the conference of the parties of the CBD in Curitiba, Brazil, in April 2006 invited governments to consider establishing "National trust funds that support protected areas systems: these should be used for channeling, inter alia, multilateral and bilateral grants, tourism-based revenues, debt-for-nature swap proceeds, and contributions from non-governmental organizations"

E. Incremental Cost Analysis

224. The difference between the cost of the baseline scenario (US\$7.9 million) and the cost of the GEF alternative (US\$40.8 million) is estimated at US\$32.9 million; which represents the incremental cost for achieving the global environmental objectives (see Table A9.1). Of this, 30 percent or US\$10 million is requested from GEF. The remaining support will come from co-financing from IDA and from bilateral donors that have been leveraged on the basis of the GEF contribution to the Foundation.

Table A9.1: Incremental Cost Matrix for GEF Funding

| | Costs (US\$ million) | Domestic Benefit | Global Environmental Benefit |
|---|-----------------------------|--|--|
| Baseline – bridge financing for 3 years to 30 national parks, tourism revenues, existing Foundation revenues | | | |
| Component A: PA and landscape management | 5.2 | - Preservation of ecological services for resource dependent communities in vicinity of targeted protected areas | - Temporary protection of global public good over 2.7 million ha including biodiversity values and carbon stocks |
| Component B: Local community support and development | 1.9 | - Compensation for loss of access to natural resources for communities around 33 protected areas | |
| Component C: Sustainable financing mechanisms for PAs and landscapes | 0 | | |
| Component D: Project Management | 0.8 | | |
| <i>Sub-total</i> | 7.9 | | |

| | Costs (US\$ million) | Domestic Benefit | Global Environmental Benefit |
|--|-----------------------------|--|---|
| Alternative – endowment to and strengthening of Foundation | | | |
| Component A: PA and landscape management | 5.2 | -Increased zone of protection of ecological services resulting in extended geographical benefits | - Long term protection of global public good including biodiversity values and carbon stocks with potential for increased geographical coverage of 1,050,773 ha in the first instance |
| Component B: Local community support and development | 4.3 | - Long term community support for alternative livelihoods and involvement in PA management | and strong possibility of attracting further funds to the Foundation to increase scope further through ‘multiplier effect’ of conservation trust fund |
| Component C: Sustainable financing mechanisms for PAs and landscapes | 30.5 | - Revenues from avoided deforestation / ecotourism shared with local communities | - Contribution to reduced carbon emissions through implementation of avoided deforestation activities |
| Component D: Project Management | 0.8 | - Increased national flexibility in addressing financing needs towards national priority areas and less dependence on external aid | - Piloting of new approaches to sustainable financing mechanisms with global applicability |
| <i>Sub-total</i> | 40.8 | | |
| Increment – difference between alternative and baseline | | | |
| Component A: PA and landscape management | 0 | | |
| Component B: Local community support and development | 2.4 | | |
| Component C: Sustainable financing mechanisms for PAs and landscapes | 30.5 | | |
| Component D: Project Management | 0 | | |
| <i>Sub-total</i> | 32.9 | | |
| GEF Grant | 10.0 | | |

E. Role of Co-financing:

Table A9.2: GEF Alternative – Breakdown of Funding Sources by Components (US\$ million)

| Activity | GEF | IDA | KfW – sinking | KfW - capital | AfD | CI | Total |
|--|-----------|-------------|------------------|------------------|------------|------------|-------------|
| Component A: PA and landscape management | 0 | 5.2 | 0 | 0 | 0 | 0 | 5.2 |
| Component B: Local community support and development | 0 | 4.3 | 0 | 0 | 0 | 0 | 4.3 |
| Component C: Sustainable financing mechanisms for PAs and landscapes | 10 | 1.0 | 1.9 | 7.7 | 7.9 | 2.0 | 30.5 |
| Component D: Project Management | 0 | 0.8 | 0 | 0 | 0 | 0 | 0.8 |
| TOTAL | 10 | 11.3 | 1.9 | 7.7 | 7.9 | 2.0 | 40.8 |

Annex 10: Team Composition

| Name | Title | Unit |
|------------------------|-----------------------------------|------------------|
| Jean Christophe Carret | Task Team Leader | AFTEN |
| Raj Soopramanien | Lead Counsel | LEGAF |
| Mohammed Bekhechi | Lead Counsel | LEGEN |
| Sarwat Hussain | Senior Communications Officer | AFRSC |
| Erick Rabemananoro | Communications Officer | AFRSC |
| Paul Jean Feno | Environment Specialist | AFTEN |
| Lova Ravaoarimino | Procurement Specialist | AFTPC |
| Bienvenu Rajaonson | Senior Environment Specialist | AFTEN |
| Rondro Rajaobelison | Program Assistant | AFMMG |
| Wolfgang Chadab | Senior Finance Officer | CTRFC |
| Joseph Byamugisha | Financial Management Specialist | AFTFM |
| Olivia Rakotomalala | Operation Analyst | Consultant/AFTEN |
| Juerg Brand | Natural Resources Mgt. Specialist | Consultant/AFTEN |
| Alison Clausen | Environment Specialist | Consultant/AFTEN |
| Leoncie Niyonahabonye | Office Manager | AFTEN |