

## Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods

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GEF Project ID:	5516
Recipient Country:	Mozambique
Executing partner:	Ministry of Land, Environment and Rural Development (MITADER)
Expected EOD (Starting Date):	1 July 2016
Expected NTE (End Date):	30 June 2021
Contribution to FAO's Strategic Framework:	<ul style="list-style-type: none"> <li>• Strategic Objective: SO2-Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner; Organizational outcome 2.1. Producers and natural resource managers adopt practices that increase and improve agricultural sector production in a sustainable manner.</li> <li>• Regional Initiative/Priority Area: RP2: Promote sustainable use and management of natural resources;</li> <li>• Country Programming Framework Outcome: <ul style="list-style-type: none"> <li>- Priority Area 3 - Environment, natural resources, climate change and disaster risk reduction; Outcome 3.1: Improved natural resources management, resilience to climate change and capacity to respond to disasters;</li> <li>- Output 3.1.1 Local communities with improved knowledge of land, water, forestry, and wildlife resources management.</li> </ul> </li> </ul>
Contribution to GEF TF Focal Area Strategic Objectives and Programs:	<p>BD-2: Mainstreaming biodiversity conservation in production landscapes/seascapes and sectors</p> <p>CCM-5: Promote conservation and enhancement of carbon stocks through sustainable management of land use, land use change and forestry</p> <p>SFM/REDD+-1: Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services.</p>
Contribution to Aichi Targets/Mozambique NBSAP	Aichi Target 14: "By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs

	of women, indigenous and local communities, and the poor and vulnerable.” Mozambique NBSAP 2 Sustainable use of components of biological diversity; 2.1 “To promote the sustainable and integrated use of flora resources (timber and non-timber), ensuring the creation of benefits for all those involved in their exploitation, with an emphasis on local communities.”
Environmental and Social Risk Classification	A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/>
Financing Plan:	
GEF/LDCF/SCCF allocation:	US\$3,637,748
<u>Co-financing:</u>	
Implementation of the 20% Decree	US\$ 4,800,000 (Government)
Establishment of REDD+ MRV platform	US\$ 5,000,000 (FCPF)
REDD+ Readiness Preparation Grant	US\$ 3,600,000 (FCPF)
Forest Investment Program (FIP)	US\$ 24,000,000 (under preparation)
FAO tree cover assessment training	US\$ 200,000 (German Ministry for Environment)
Sub-total co-financing:	US\$ 37,600,000
Total budget (GEF + co-financing):	US\$ 41,237,748
<b>Executive Summary</b>	
<p>Mozambique’s forest ecosystems, which cover about half the country’s surface area, hold a significant livelihood value to local communities. They yield wood fuel, fodder for livestock, fibre for construction and furniture (for domestic use and export), foodstuffs (e.g. mushrooms, honey, animal protein, fruits, vegetables and nuts) and medicinal products both for subsistence and cash income generation, employment, in addition to providing environmental services such as regeneration of soil fertility and water conservation. Deforestation and forest degradation caused by shifting cultivation and unsustainable timber and charcoal exploitation as well as uncontrolled forest fires, however, reduce the availability of the above-mentioned forest ecosystem goods and services to rural communities, as well as threatening globally important biodiversity and increasing greenhouse gas emissions.</p> <p>Over the past two decades, Mozambique has developed a number of laws, policies, strategies, programmes and action plans addressing conservation and sustainable management of the country’s natural forests, as well as mechanisms for sharing revenues of commercial forestry and wildlife conservation activities with local communities. Implementation of this legal and regulatory framework, however, has remained a challenge. Illegal logging and charcoal exploitation are rife in many parts of the country, causing environmental degradation as well as robbing local communities of the benefits they would have received from legal forest harvesting activities.</p> <p>In response to the above challenges, the objective of the proposed project is to: <i>“promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through improvement of the existing revenue sharing mechanism that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.”</i></p> <p>In line with STAP 2010 guidance for the design of PES projects, the project, which will support</p>	

government-financed multiple service payments for forest ecosystem services, contains a number of design elements to address the four main threats to PES effectiveness: (i) non-compliance; (ii) poor administrative selection; (iii) spatial demand spill-overs (“leakage”); and (iv) adverse self-selection.

The project has four components. The first is the improvement of an existing national forest and wildlife revenue sharing mechanism to become more transparent and equitable and integrate Payment for Ecosystem Services (PES). Under this component, the project will develop a common set of rules for investing in provision of and compensation for ecosystem services, and promote their adoption by existing government sector funds and revenue sharing mechanisms, including forestry, mining, tourism, agriculture, fisheries, energy, environment and infrastructure. In this way, the project will contribute to mainstreaming biodiversity conservation into the country’s development policy framework.

The second component aims to enhance the institutional capacity of the Ministry of Lands, Environment and Rural Development (MITADER), which is in charge of natural forest management, and decentralized government bodies, NGOs and local communities to manage the improved revenue sharing mechanism, including the PES element. This will involve developing institutional capacities and operating procedures as well as training individuals.

The third component, which will build in part on the PES rules developed under the first component, concerns the detailed design and practical testing of the improved government forest and wildlife revenue sharing mechanism in Zambezia Province. Under the improved revenue sharing mechanism, payments will become conditional on environmental performance of communities. The improved mechanism will be operationalized in 7 Districts, covering a total area of almost 4 million hectares, of which 2.1 million hectares are forest. On-the-job training for district and provincial government officials involved in implementing this component would further enhance institutional capacity developed under the second component.

The fourth component will implement a sound monitoring and evaluation framework – to track project progress and measure impacts on the health of ecosystems and on people’s wellbeing. Special attention will be given to women’s roles in decision-making and benefit sharing in all components.

The direct Global Environmental Benefits (GEBs) to be generated by the project are avoided deforestation of 6,840 ha of diverse miombo forest ecosystems and 1.49 million tonnes CO<sub>2</sub> equivalent worth of emissions related to deforestation and degradation. The project will also generate indirect GEBs, through integrating payment for ecosystem services in a national forest and wildlife revenue sharing mechanism, thus helping to mainstream biodiversity conservation into the country’s development policy framework.

Directly, the project will support at least 26 natural resource management committees (CGRN) representing a total of around 150,000 rural dwellers (12.5% of the project area’s population). The project will also train 30 MITADER and NGO staff working on PES and at least 10 officials of other government sector funds (agriculture, mining, tourism, fisheries, infrastructure) and revenue sharing mechanisms in developing operational procedures for integrating Payment for Ecosystem Services into their respective mechanisms. Indirectly, the project, through mainstreaming payment for ecosystem services in 5 government sectoral funds and revenue sharing mechanisms, will support the majority of Mozambique’s rural population of 17.2 million.

The project is closely aligned with a government flagship initiative that is currently under preparation, the Zambezia Integrated Landscape Management Program (ZILMP), which will work on Reducing Emissions from Deforestation and Forest Degradation (REDD+) in the same seven Districts as the GEF project. ZILMP will be funded by the Government of Mozambique through a grant it will receive from the Forest Investment Program. In addition, the project will build on the encouraging result of the Norwegian funded Testing REDD+ initiative, which works with timber licence holders and local communities to improve miombo management in the Beira corridor, including some of the same districts. The GEF funds will be invested in making the existing forest and wildlife revenue sharing mechanism more equitable and transparent, and in designing a new PES element, but all PES payments to local communities will be funded by an existing government forest revenue sharing mechanism – which is not conditional on local communities’ environmental performance at present – thus enhancing the likelihood that the mechanism established by the project will be sustainable.

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## ACRONYMS

<b>ACODEMAZA</b>	Associação Comunitária de Defesa e Saneamento do Meio Ambiente da Zambézia
<b>ADRA</b>	Adventist Development and Relief Agency
<b>ANAC</b>	National Protected Areas Agency
<b>AWP/B</b>	Annual Work Plan and Budget
<b>BD</b>	Biodiversity
<b>BH</b>	Budget Holder (FAO)
<b>CBD</b>	Convention on Biological Diversity
<b>CBNRM</b>	Community Based Natural Resources Management
<b>CBO</b>	Community Based Organization
<b>CCM</b>	Climate Change Mitigation
<b>CITES</b>	Convention on International Trade in Endangered Species of Wild Fauna and Flora
<b>COSV</b>	Coordinamento delle Organizzazioni per il Servizio Volontario
<b>CPF</b>	Country Programming Framework (FAO)
<b>CTA</b>	Chief Technical Adviser
<b>DINAB</b>	National Directorate of Environment
<b>DINAS</b>	National Directorate of Agriculture and Silviculture
<b>DINAF</b>	National Directorate of Forest (under MITADER)
<b>DNEA</b>	National Directorate for Agricultural Extension
<b>DNTF</b>	Former National Directorate for Land and Forests (under Agriculture Ministry)
<b>DPA</b>	Provincial Directorate of Agriculture
<b>DPTADER</b>	Provincial Directorate of Land, Environment and Rural Development
<b>ESB</b>	FAO portal on Ecosystem Services and Biodiversity
<b>EU</b>	European Union
<b>FAO</b>	Food and Agricultural Organization of the UN
<b>FC</b>	Forest Concession
<b>FCPF</b>	Forest Carbon Partnership Facility
<b>FDA</b>	Agrarian Development Fund
<b>FFP</b>	Fisheries Development Fund
<b>FIP</b>	Forest Investment Program
<b>FLEGT</b>	Forest Law Enforcement, Governance and Trade
<b>FOMC</b>	Forestry Management Division
<b>FONGZA</b>	Forum of Non-Governmental Organizations in Zambézia Province
<b>FPMIS</b>	Field Programme Management Information System
<b>FUNAB</b>	National Environment Fund (of Mozambique)
<b>FUNAE</b>	National Energy Fund (of Mozambique)
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Environment Facility
<b>GIZ</b>	Gesellschaft für Internationale Zusammenarbeit
<b>IIED</b>	International Institute for Environment and Development
<b>INAGEM</b>	National Institute of Geology and Mining (of Mozambique)
<b>INATUR</b>	National Tourism Institute (of Mozambique)
<b>IUCN</b>	International Union for Conservation of Nature
<b>JICA</b>	Japan International Cooperation Agency
<b>LCA</b>	Lead Coordinating Agency
<b>LoA</b>	Letter of Agreement
<b>LTO</b>	Lead Technical Officer (FAO)
<b>LTU</b>	Lead Technical Unit (FAO)
<b>MASA</b>	Ministry of Agriculture and Food Security
<b>M&amp;E</b>	Monitoring and Evaluation

<b>MITADER</b>	Ministry of Land, Environment and Rural Development
<b>MOZBIO</b>	Mozambique Conservation Areas for Biodiversity and Development Project
<b>MRV</b>	Monitoring, Reporting and Verification
<b>NAPA</b>	National Adaptation Plan of Action
<b>NBSAP</b>	National Biodiversity Strategy and Action Plan
<b>NCU</b>	National Coordination Unit
<b>NGO</b>	Non-Governmental Organization
<b>NRM</b>	Natural Resource Management
<b>ORAM</b>	Rural Association for Mutual Aid
<b>PEI</b>	Poverty-Environment Initiative (of UNDP and UNEP)
<b>PES</b>	Payment for Environmental Services
<b>PIR</b>	Project Implementation Review
<b>PPR</b>	Project Progress Report
<b>PRODEA</b>	Program for Environmental Development
<b>PSC</b>	Project Steering Committee
<b>QPIRs</b>	Quarterly project implementation reviews
<b>RADEZA</b>	Rede de Organizações para Ambiente e Desenvolvimento Sustentável da Zambézia (Network of Environment and Sustainable Development Organizations in Zambézia Province)
<b>REDD</b>	Reducing Emissions from Deforestation and Forest Degradation
<b>REL</b>	Reference Emissions Level
<b>RL</b>	Reference Level
<b>RF</b>	Results Framework
<b>RSM</b>	Revenue Sharing Mechanism
<b>SDAE</b>	District Service for Economic Activities
<b>SADC</b>	Southern African Development Community
<b>SDPI</b>	District Service for Planning and Infrastructure
<b>SFM</b>	Sustainable Forest Management
<b>SL</b>	Simple License (logging area smaller than FC)
<b>SO</b>	Strategic Objective (FAO)
<b>TCI</b>	FAO Investment Centre (which hosts FAO's GEF Technical Coordination Unit)
<b>ToR</b>	Terms of Reference
<b>UN</b>	United Nations
<b>UNDAF</b>	United National Development Assistance Framework
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>ZILMP</b>	Zambézia Integrated Landscape Management Program

## SECTION 1–INTRODUCTION

### 1.1 Country context

Mozambique is a country located in Southeastern Africa, with a surface area of 799 380 sq. km which lies between latitudes 10°27' and 26°52' South and longitudes 30°12' and 40°51' East. The country borders the Mozambique Channel between South Africa and Tanzania, and has a land boundary with Malawi, South Africa, Swaziland, Tanzania, and Zimbabwe. The east coast of Mozambique is on the Indian Ocean with a coastline of 2470 km, which includes a number of islands. Mozambique is divided into eleven provinces: Cabo Delgado, Gaza, Inhambane, Manica, Maputo, Maputo City, Nampula, Niassa, Sofala, Tete, and Zambézia, which are sub-divided into a total of 134 districts.<sup>1</sup> This project will implement field activities in Zambézia Province.

Mozambique is one of the poorest countries in the world with a *per capita* income of 646 USD in 2013<sup>2</sup>, ranking 178th out of 187 countries in the 2014 Human Development Index (Index: 0.393), placing the country in the category of Low Income Countries.<sup>3</sup> Since independence in 1975, the population has doubled and was estimated at 25.8 million people in 2013<sup>4</sup> with a population density of 29.9 per square kilometer in 2011<sup>5</sup>. In Mozambique, 68.31 per cent of the population lives in rural areas, and almost 80 per cent of the labor force works in the agricultural sector, and of these 83% are women<sup>6</sup>. This prevalence of the primary sector in the economy makes the country extremely dependent on natural resources.

The rural poor, and especially women that directly depend on natural resources for their livelihoods and resilience, are particularly vulnerable to economic and environmental shocks. Generally speaking, women have weaker property and contractual rights to land, natural resources, water and other means of production. This state of affairs contributes to the deterioration of women's socioeconomic position and of the rural household food security situation<sup>7</sup>.

#### 1.1.1 Forest resources situation

Mozambique is one of the few countries in southern Africa with a significant forest cover. Given the geology, topography and climate of the country, forest areas in Mozambique are not distributed evenly, and the central and northern areas are characterized by rich forest resources while the south is relatively poorer. A forest assessment carried out in 2007 estimates that about 70% of the country's total land area is covered by natural forest and other woodlands. Forests alone occupy 50% of the land, about 40 million hectares<sup>8</sup>.

The forest class includes: evergreen dense, deciduous dense, evergreen open, deciduous open, mangroves, and other open forests in regularly flooded areas. Woodlands occupy an additional 19% of the country's total land. This class includes: thickets, shrublands, wetlands and a mosaic of fallow areas. Agriculture occupies about 15% of the country, while grasslands cover about 12%. Finally, urban areas, bare soils and water occupy about 3% of the country's area (Figure 1).

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<sup>1</sup> <http://www.portaldogoverno.gov.mz/Informacao/>

<sup>2</sup> National Institute of Statistics <http://www.ine.gov.mz/en/Dashboards>

<sup>3</sup> <http://hdr.undp.org/en/countries/profiles/MOZ>

<sup>4</sup> <http://data.worldbank.org/country/mozambique>

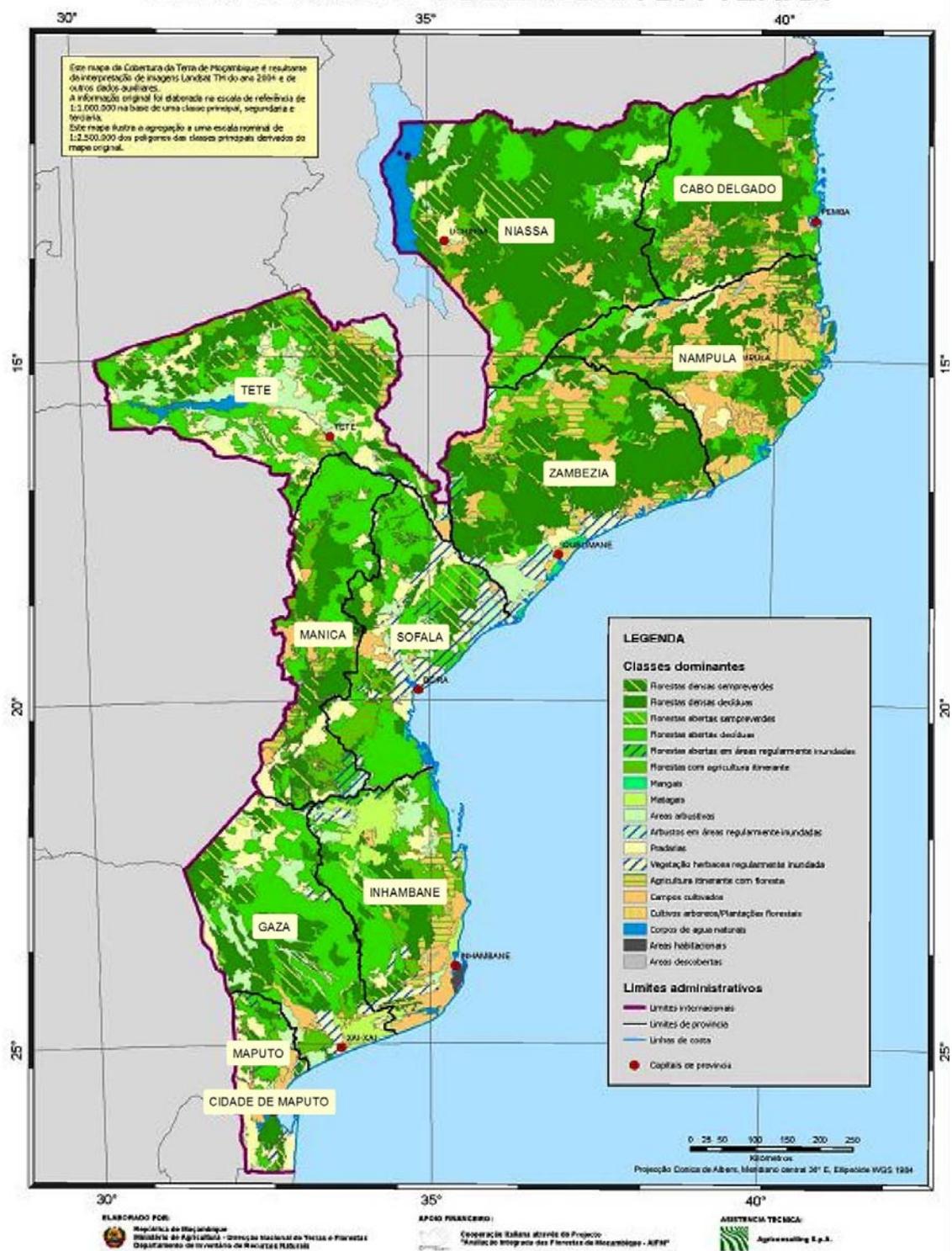
<sup>5</sup> <https://data.un.org/CountryProfile.aspx?crName=Mozambique>

<sup>6</sup> [http://faostat.fao.org/CountryProfiles/Country\\_Profile/Direct.aspx?lang=en&area=144](http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=144)

<sup>7</sup> United Nations Development Assistance Framework- UNDAF 2017-2020

<sup>8</sup> Marzoli, 2007. Inventário Florestal Nacional. Avaliação Integrada de Florestas em Moçambique FRA 2010. Global Forest Resources Assessment 2010. Country Report. Mozambique.

Figure 1: Land use and land cover map of Mozambique



In Mozambique, native forest falls under the following three categories as defined by the Forest and Wildlife Act of 1999:

**Conservation forest:** these include forest located inside protected areas, including both areas earmarked for integral protection and areas for sustainable use, subject to special management regimes. Conservation area categories comprises: integral natural reserve, national park, natural and cultural monument, special reserve, area of environmental protection, official hunting area, community conservation area, sanctuary, game farm and municipal ecological park,.

**Productive forest:** these areas are composed by forests with high potential for timber production, and located outside protected areas. These areas are managed under:

- **Forest concessions (FCs) in natural forests:** these areas are generally managed by private concessionaires. Local communities may also manage these areas, usually facilitated by an NGO or the State or in a private-community partnership.
- **Simple Licenses (SLs) in natural forests:** these can be granted only to national citizens of Mozambique, and are in fact the most common extraction regime in Mozambique. An SL allows the license holder to extract a relatively small volume of timber. SLs are relatively cheaper to obtain and have much simpler application requirements compared to FC.

**Multiple-use forests:** these are forests located outside protected areas and with low potential for timber. These areas are usually unmanaged, and are generally utilized by local communities for subsistence.

### 1.1.2 Biodiversity situation

Mozambique is a major repository of biodiversity with profound international importance, and whose management has implications for the entire sub-region. The country contains three areas designated by Conservation International as Biodiversity hotspots, namely: the Eastern Afromontane hotspots found in various highland areas located in the centre and west of the country; the Coastal Forests of Eastern Africa, stretching along the coastal belt; and the Maputaland-Pondoland-Albany Hotspot, located in the southern part of the country.

Protected Areas have provided the principal means for conserving the country's biodiversity and the network of protected areas currently represent about 26% of Mozambique's surface area, exceeding the country's target for the National Biodiversity Strategy and Action Plan (NBSAP: 2003-2010) and one Aichi 2020 goal. In the framework of the country's efforts for the implementation of the NBSAP, from 2010-2014 new wildlife protected areas were created including marine and coastal area. The new protected areas comprises the only aquatic (freshwater) protected area, Lake Niassa Partial Reserve, and an additional national park, the National Park of Mágoè, as well as several hunting reserves called *Coutadas*. Other protected areas comprise forest reserves created for plant conservation, and those include the Bobole Forest Reserve that protects the *Raphia australis*; the Derre Forest Reserve to protect tree species of commercial value and the Matibane Forest Reserve to protect *Androstachys johnsonii*. However, the efficiency and effectiveness of conservation activities in these reserves remains a challenge. The presence of human settlements within Conservation Areas is a phenomenon that leads to the destruction of the natural habitat. Cattle raising and shifting cultivation are common practices of the people living within those areas. On the other hand, the communities living within Conservation Areas are negatively affected by the presence of wildlife and human deaths, agricultural losses have been reported. With exception of the National Reserve of Gile in Zambézia Province, there are populations living within Conservation Areas. In some cases, Conservation Areas were established already with people inside and in other cases, populations occupied them after the establishment, especially during the civil war in Mozambique and in the period that followed the Peace Accords<sup>11</sup>.

Mozambique has a rich diversity of **wild mammals**, with the largest population of dugongs of the East African coast. About 50% of the bird species of southern Africa occur in Mozambique. The variety of species and their habitats provides an attraction for both domestic and international tourists and stimulates the tourism industry. There are also three sub-species of large terrestrial mammals that are endemic or near-endemic to Mozambique: *Equus burchelli subsp. boehmi* (Boehm's zebra), *Connochaetes taurinus johnstoni* (Niassa Wildebeest) and *Aepycerus melampus subsp. johnstonii* (Johnston's impala). In the last five years new species were discovered in Mozambique as a result of new scientific studies and expeditions in previously inaccessible locations. Some of the species have been identified and these include: pygmy chameleon (*Rhampholeon sp.*), a new species of butterfly (*Cymothoe sp.*), and freshwater crab (*Potamonautes sp.*). The country is also rich in **marine biodiversity** as it has 4th longest coastline in Africa, and five of the world's seven sea turtle species nest on its beaches.

Animal diversity is threatened by pressure on wildlife habitat from agriculture, fires, poaching and infrastructure. The most endangered mammals in Mozambique include white rhino (*Ceratotherium simum*), common tsessebe (*Damaliscus lunatus*), sitatunga (*Tragelaphus spekei*), black rhino (*Diceros bicornis*), the giraffe (*Giraffa camelopardalis*), grey palapala (*Sable equinum*), reedbuck (*Redunca fulvorufula*) and the cheetah (*Acinomyx jutabus*). Two hundred and sixty bird species are of concern because of their global and national conservation status. There are five species of sea turtles along the coast of Mozambique *Caretta caretta* (loggerhead turtle), *Lepidochelys olivacea* (pacific ridley turtle), *Chelonia mydas* (green turtle), *Dermochelys coriacea* (giant turtle) and *Eretmochelys imbricata* (hawksbill sea turtle). All sea turtles are included in the IUCN Red List of threatened species. The dugong, a sea mammal, is seriously threatened, and the population of the Bazaruto Archipelago probably represents the only viable population in Southern Africa.

Concerning **plant diversity**, the most recent botanic expeditions estimate the country to have 5,781 species of plants. 35 of these constitute new taxa and 105 represent new records for Mozambique of species already known from other countries. Of all plant species recorded in Mozambique, about 800 are endemic or near endemic. The mountainous areas of Mozambique are relatively rich in endemic species with at least 45 species of plants that are only found in Chimanimani.

Some of the most important biodiversity areas are adjacent to protected areas, often playing an important role as corridors allowing wildlife to migrate seasonally. A significant part of Mozambique's biodiversity is in forests that are not covered by protected areas, justifying the project's investment in developing PES mechanisms to improve management of these forests.

### 1.1.3 Legal, policy and institutional context

This project aims to implement measures to promote biodiversity conservation and climate change mitigation in *miombo* ecosystems of Mozambique, while improving local people's livelihoods. It is closely aligned with a number of Mozambican laws, policies, strategies, programmes and action plans with similar aims. The relevant national laws, policies and strategies are briefly highlighted below.

The **Constitution of the Republic of Mozambique**, revised in 2004, article 117 states that "The State shall promote efforts to guarantee the ecological balance and the conservation and preservation of the environment, with a view to improving the quality of life of its citizens". This article aims to guarantee that environmental values are fully integrated into economic and social sector policies, including educational programs and policies. It also aims to prevent and control environmental pollution and soil erosion through integrated land use planning, with the objective of promoting the rational use of natural resources for socioeconomic development.

Recognizing that the country's persistent environmental and natural resources management challenges need to be urgently addressed if Mozambique is to make progress in its efforts to create wealth, alleviate poverty, and promote gender equality, the fifth priority area of the **Government of Mozambique five year plan's ( 2015-2019)** focuses on "Ensuring sustainable and transparent

management of environment and natural resources”. During the United Nations Conference on Sustainable Development (Rio+20), the Government of Mozambique launched a Green Economy Roadmap. The overall objective of the Mozambique Action Plan is to guide the integration of policies and practices into environmental sustainable planning to make Mozambique an inclusive middle-income country, based on the protection, restoration, and sustainable use of natural capital and ecosystem services, ensuring efficient and inclusive development within planetary boundaries.

**The Forest and wildlife Policy and Law (1999)** prescribes good natural resource management practices and local community participation. The law provides a framework for the government to delegate forest and wildlife resource management responsibilities to civil society, private sector and local communities provided the latter respect laws and regulations promoting sustainability and benefit sharing. Although the National Strategy for the Promotion of Integrated Community-based Natural Resources Management (CBNRM) was never formally approved, about 70 CBNRM initiatives have been implemented since the 1990’s, the majority of them related to forest management.<sup>9</sup>

A landmark in this policy framework is the **Ministerial Decree (“Diploma Ministerial”)** approved in 2005 that authorizes the benefit sharing arrangements for local communities whose customary lands are under Forest and Wildlife Concessions. Since then, the government of Mozambique, through the (former) Ministries for Coordination of Environmental Affairs, Agriculture and Tourism, has been working to increase effective community involvement in the sustainable use, conservation and management of natural resources, though the disbursement of the 20% decree funds is not yet conditional on local communities’ environmental performance. The current project proposes to turn the 20% benefit sharing arrangement into a PES scheme in order to complement these efforts.

**The Land Policy and Law** contains the procedures governing land administration and management in Mozambique. The main elements of the land regulatory framework are: (i) state ownership over the land; (ii) recognition of customary rights over the land; (iii) a consultation with local communities before awarding land use rights title; (iv) land use rights to other citizen or foreigners requires authorizations and is valid for 50 years, subject to renewal. Nevertheless, the land law is not entirely harmonized with the forest law. A land use right title does not imply rights over forest and other resources, and awarding a forest operation (forest concession or simple license) does not exclude a land use right title. A recent assessment of the legal framework for REDD+ in Mozambique<sup>10</sup> indicates that, in practical terms, this discrepancy between the two laws can create a lack of incentives for forest conservation among local communities. The upcoming reform of the forest law offers an opportunity for better alignment with the land law. A **Land Tenure Program** was launched in April 2015, aiming at strengthening the land management and administration system, focusing on access, registration, information management as well as implementation of climate change mitigation and adaptation programs.

Mozambique has embarked on its Reduced Emissions from Deforestation and Forest degradation (REDD+) readiness process since 2008. The **REDD+ Decree (2013)** provides the legal basis for REDD+ implementation including the institutional framework in the country. The Decree creates the REDD+’s Technical Unit as well as the REDD+ Technical Group; while also clarifying the roles and responsibilities for REDD+ between the former Ministry of Environment (MICOA) and the former Ministry of Agriculture (MINAG), which used to be responsible for forests before they were transferred to MITADER. Both PES and REDD+ emphasise environmental performance, systematic assessment and reward for results.

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<sup>9</sup> Siteo, A., Salomão, A. and Wertz-Kanounnikoff, S. 2012. The context of REDD+ in Mozambique: Drivers, agents and institutions. Occasional Paper 79. CIFOR, Bogor, Indonesia. [http://www.cifor.org/publications/pdf\\_files/OccPapers/OP-79.pdf](http://www.cifor.org/publications/pdf_files/OccPapers/OP-79.pdf)

<sup>10</sup> Nemus/Beta. 2015. Análise do Quadro Legal e Institucional para a Implementação do REDD+ em Moçambique.

The **Environmental Strategy for Sustainable Development** (2007–2017) seeks to create a common vision for Mozambique for better environmental management leading to sustainable development that will contribute to the eradication of poverty. The strategy sets out key goals and strategies for its natural resources, biodiversity, urban areas, population, and atmospheric pollution. The strategy aims in particular at ensuring equal access to land and related resources. The document promotes a sound management and use of all natural resources to maintain their ability to function and produce for present and future generations, and therefore support food security and the eradication of hunger.

The **Biodiversity Conservation Law**, approved in 2014, is strengthening the country's commitment to enforce legislation that promotes the protection, conservation and sustainable use of biological diversity for the benefit of human kind and the Mozambicans in particular. The Conservation area categories comprises: integral natural reserve, national park, natural and cultural monument, special reserve, area of environmental protection, official hunting area, community conservation area, sanctuary, game farm and municipal ecological park.

The **Rural Development strategy's** (2007-2025) vision is the Government's commitment to achieve the medium and long term promotion of a dynamic, healthy, vigorous and stable environment for rural communities. The idea is built on five strategic objectives, namely: (i) competitiveness, productivity and wealth accumulation; (ii) productive and sustainable management of natural resources and the environment; (iii) development of human capital, innovation and technology; (iv) diversification and efficiency of social capital, infrastructure and institutions and; (v) good governance and planning for the market.

In addition, the Ministry of Planning and Development (MPD) and the Coordinating Ministry for the Environment (MICOA, now under MITADER) have been working on the **Poverty-Environment Initiative (PEI)** with UNDP and UNEP since 2005, to integrate environment into the country's economic and social plans.<sup>11</sup> This demonstrates the interest of the Mozambican government in mainstreaming environmental concerns in government policy making and expenditure. The PES mechanism to be established by the project could help to translate this environmental mainstreaming into practical results on the ground.

Mozambique ratified international conventions such as the United Nations Convention on Biological Diversity (CBD) in 1992, taking on the commitment to promote international cooperation on the management and sustainable use of biological resources for the implementation of the objectives of the Convention. The **National Biodiversity Strategy and Action Plan (NBSAP)** was first formulated in 2003 (for the period until 2010) and the process of revising and updating is ongoing<sup>12</sup>. To consolidate the progress made in the implementation of the previous strategy, the fifth national report on the CBD in Mozambique emphasises that the benefits of biodiversity conservation must be shared equitably, and that this is achieved in part through the Ministerial Decree providing for 20% of tax receipts from forest and wildlife concessions to be distributed to local communities. In this sense, there is a direct alignment with this project.

In terms of climate change mitigation, Mozambique ratified the UN Framework Convention on Climate Change (UNFCCC) in 1994 and advanced in strategies for sustainability and conservation of the environment. Notably, the relevant and approved national Policies and strategies are:

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<sup>11</sup> Sector ministries such as Agriculture, Fisheries, Tourism, Energy, Health, Mineral Resources, Public Works, Women and Social Affairs have also been involved in the implementation of this project, see <http://www.unpei.org/what-we-do/pei-countries/mozambique#sthash.2fm7QjTc.dpuf>

<sup>12</sup> Government of Mozambique. 2014. Fifth National Report on the Implementation of Convention on Biological Diversity in Mozambique

The **National Adaptation Programme of Action (NAPA)** was adopted in 2007. The objective of the NAPA is to contribute to minimizing the negative impacts of climate change on the most vulnerable populations, in order to implement sustainable development and fight against poverty and losses due to natural disasters in Mozambique. The NAPA document gives an overview of the priorities and urgent activities to be undertaken to cope with and adapt to climate change.

The **National Climate Change Adaptation and Mitigation Strategy** (2013 – 2025) is implemented by the Ministry of Land, Environment and Rural Development (MITADER), through small projects financed yearly by the **Economic and Social Plan (PES)**. The overall objective of the strategy is "to establish guidelines for action to build resilience, including the reduction of climate risks, communities and the national economy and promote the development of low carbon and green economy, through their integration in the sector planning process".

The recent **Gender, Environment and Climate Change Action Plan** (2015-2019) aims at “developing and enhancing, in an integrated way, the gender perspective, in its cross-cutting dimensions with the environment sector, toward improving the quality of life of the population, in particular women and the communities, through mitigation and adaptation to climate change and the sustainable use of natural resources”<sup>13</sup>. The Strategy has six objectives: (i) Contribute to the empowerment of women and local communities, through access to technologies and other activities aimed at the mitigation and adaptation to climate change and the sustainable use of natural resources; (ii) Ensure gender equity in environmental decision-making, training and capacity building processes; (iii) Ensure that plans, policies, programs, strategies and budgets promote gender equity, access to natural resources and measures for the mitigation and adaptation to climate change; (iv) Ensure that the staff and technicians of all cross-cutting sectors within the major environmental sector have an understanding of gender equity and are able to contribute to the purposes of this strategy; (v) Contribute to turning MITADER into an institution that actively practices and promotes gender equity in environmental management; and (vi) Make MITADER Gender Department operational, as a national mechanism for the implementation and monitoring of priority actions within the scope of gender, environment and climate change. The GEF project will be particularly well aligned to this strategy by ensuring women’s representation in the Natural Resource Management (NRM) committees as well as their participation in training and other relevant project activities.

#### **1.1.4 Key government institutions**

**The Ministry of Land, Environment and Rural Development (MITADER).** After the new Government took over in early 2015, the Ministry of Environment was expanded and renamed the Ministry of Land, Environment and Rural Development (MITADER) and its role was redefined to focus on policy implementation, rather than just coordination as previously. MITADER is now responsible for all matters regarding: i) land use planning and administration; ii) administration, management and use of forest and wildlife; iii) administration and management of the national network of conservation areas, iv) planning, promotion and coordination of integrated and sustainable rural development, iv) cross-sectoral coordination and sustainable use of natural resources in favour of sustainable development. Its broad responsibility covers inter-sectorial coordination, environmental research and management, environmental impact assessment, planning and spatial development, environmental promotion, education and dissemination, and environmental inspection and supervision. It is now one of the lead institution in coordinating the formulation and approval of the National Climate Change Adaptation and Mitigation Strategy (2013 – 2025), the implementation of Agenda 21, and focal point of United Nations Framework Convention for Climate Change (UNFCCC).

The agencies within MITADER that will be involved in the project are:

- the **National Administration for Conservation Areas (ANAC)**;

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<sup>13</sup> MICOA. 2010. Gender, Environment and Climate Change Strategy and Action Plan (2014 – 2019)

- the **National Directorate of Environment (DINAB)**, which has the responsibility to promote policies, plans and norms for the correct use of the environment and for environmental quality control (mainly air, water and soil); disseminate information, materials and tools aiming to contribute to proper environmental management;
- the **National Directorate of Forest (DINAF)** which has the responsibility of forest and wildlife licensing, conservation and inventory outside conservation areas; and
- the **National Fund for Sustainable Development (FNDS)** which fosters and promotes activities designed to ensure sustainable development and climate change adaptation and mitigation.

The **Ministry of Agriculture and Food Security (MASA)**. It's main responsibilities include the administration, management, protection and conservation of natural resources associated to agricultural activities, in particular land, water, forests, domestic animals and wildlife; the promotion of agricultural production, agro-industry and commerce agricultural inputs and products; development of agriculture research and extension services and technical assistance to farmers.

The agencies within MASA that will be involved in the project are:

- the **National Directorate for Agricultural Extension (DNEA)**, responsible for extending and disseminating practices, technologies and knowledge aiming at increasing crop yields, production and the income of farming communities;
- the **Agrarian Development Fund (FDA)** with responsibilities in the areas of agriculture, livestock and, prior to the establishment of MITADER, forestry and wildlife as well;
- the **National Directorate of Agriculture and Silviculture (DINAS)**, responsible for applying the laws related to development of forest plantation and related activities.

Other Ministries that will be involved in the project less intensively include:

- the **Ministry of Economy and Finance**, responsible to guide the allocations of financial resources at sectorial as well as territorial level;
- **Ministry of Mineral Resources and Energy**, responsible for the licensing and revenue sharing of the funds in the mining and energy sectors;
- the **Ministry of the Sea, Inland waters and Fisheries**, responsible for the licensing and revenue sharing of the funds in the fisheries sector.

**Decentralized government services** at provincial and district level will also be involved in the project's implementation. The **Provincial Government of Zambézia** will be involved through the Provincial Directorate of Agriculture and Food Security (DPASA) and the Provincial Directorate of Land, Environment and Rural Development (DPTADER). The **District Government** of the seven Districts will be involved through the District Services for Economic Activities (SDAE) which undertake agriculture and other economic activities at the district level and the District Services for Planning and Infrastructure (SDPI) responsible for environmental and planning activities at district.

### 1.1.5 Civil society

At the local level several stakeholders from the **civil society** were identified as implementation partners:

- **26 NRM Committees** (from the selected communities: Mocubela-sede, Gunguro, Murrua, Mulevala sede, Nante, Bala, Namahipe, Naico, Nahetxe, Moneia, Txalane, Naburi, Impaca, Gingama, Muzo and Mulela), which receive funds under the existing government forest tax revenue sharing mechanism.
- **NGOs and local development and environment associations** who are working with the 26 NRM Committees.

- **COSV** (Coordinamento delle Organizzazioni per il Servizio Volontario) has been working in Mozambique since 1976. In the last years, COSV has focused on forest conservation in Gilè area and water and sanitation interventions in Ile and Lugela districts. Its current activities are related to conservation of natural resources in the National Reserve of Gilè and in its buffer zones through the strengthening of economic and productive activities of rural communities, such as sustainable agriculture, the production of cash crops, the production of local seeds, storage and processing of food, farming.
- **ADRA** (Adventist Development and Relief Agency) has been working in Mozambique since 1987 and particularly in the Zambézia Province. In Zambézia ADRA is facilitating farmers' capacity on food security and livelihoods. Its role in the GEF project will be in reducing the local communities' dependence on forest resources.
- **RADEZA** (Rede de Organizações para Ambiente e Desenvolvimento Sustentável da Zambézia) was created in 2004, since then it has been actively involved in activities related to environment and natural resources management, specifically forest and wildlife in Zambézia. RADEZA is represented in all districts of the province, but its activities are concentrated in the 15 districts with forest and mining resources. Its interventions are on advocacy, capacity development and awareness to local communities on issues related to environment and natural resources. RADEZA is involved in activities such as dissemination of the 20% decree, identification of beneficiary communities, support in the creation of the NRMCS and facilitating the opening of bank accounts and monitoring of projects implemented by local communities. It is also supporting small scale mining associations and sustainable practices and artisanal fisheries.
- **FONGZA** (Forum das Organizações Não-Governamentais da Zambézia) is a Forum coordinating NGOs involved in governance issues in Zambézia Province. FONGZA has been promoting and supporting lessons of good management of public affairs and advocacy campaigns to the civil society. FONGZA was responsible for the publication on "Forest Governance in Mozambique. Chinese Take away." (2006) which was commissioned to provide an update on the forest resource situation in Zambézia Province and equip civil society with the necessary information to demand sound governance of this valuable resource.
- **ACODEMAZA** (Associação Comunitária de Defesa e Saneamento do Meio Ambiente da Zambézia) was created in 1999, and it is one of the first NGOs working specifically on issues related to environment and conservation of natural resources in Zambézia. ACODEMAZA has led the CBRNM development initiative in Zambézia. Similarly to RADEZA, it is currently involved in activities such as dissemination of the 20% decree, identification of beneficiary communities, support in the creation of the NRMCS and facilitating e opening of bank accounts and monitoring of projects implemented by local communities.
- **ORAM** (Associação Rural de Ajuda Mútua) was created in 1992 with the objective of promoting justice on land issues. ORAM represents farmers' rights in the decision-making process on access and sustainable use of land resources.

### 1.1.6 Academic and research institutions

The **International Institute for Environment and Development** (IIED) is an international development and environment policy research organisation. IIED has been helping to facilitate the REDD+ process in Mozambique since 2009, and in the Zambézia Province IIED works in collaboration with forest operators to promote sustainable forest management, supporting them to switch from simple licences to concessions, and to collaborate more closely with local communities.

## 1.1.7 Private sector

The **private sector** has also shown an interest in being involved in the project's implementation. Potential PES partnerships will be explored with cashew nut traders, forest and wildlife operators and forest plantation companies.

The Foundation for the Conservation of Biodiversity - BIOFUND is a non-profit, private entity, which was created in 2011 using best practice principles for Conservation Trust Funds accepted worldwide. BIOFUND is Mozambique's first such fund and it has been chosen as the preferred fund manager for several innovative national initiatives for conservation finance in areas such as carbon crediting and biodiversity offsetting. The income of the trust fund is allocated to Mozambique's conservation area network, based on criteria and conditions set by the various stakeholders who include the National Administration of Conservation Areas (ANAC), donors, local governments, communities, and others.

## 1.2 Project site context

### 1.2.1 Forests and biodiversity

Zambézia, the province where the field activities of this project will be implemented, has significant forest cover and forestry activity in 14 (out of 16) districts (see Figure 23). The forest cover is estimated at 5,063,600 ha, about 49.1% of the total land area. The province accounts for 13% of Mozambique's forests. Districts with forest activities are Alto Molocué, Chinde, Gilé, Gurué, Ile, Lugela, Maganja da Costa, Milanje, Mocuba, Mopeia, Morrumbala, Nhamarroi, Nicoadala and Pebane. Morrumbala district presents the highest forest area, followed by Gilé, Mocuba and Pebane, while Namacurra districts and Gúruè have less potential.

Miombo is the forest ecosystem that is characteristic of the province. Thanks to the presence of *miombo*, the province is rich in wildlife species like crocodiles, hippos, elephants and monkeys. It is one of the key reptile hotspots in the country (recently two new endemic reptile species were identified- a species of snake belonging to the genus *Dromophis*, and a dwarf gecko, *Lygodactylus sp.*) and is also home to endangered species like antelopes and rhinos. Zambézia province has three conservation areas (Derre Forest Reserve, Gilé Wildlife Reserve and a Marine Reserve with mangrove forests).

Due to its ecological and climatic conditions, Zambézia province is also very rich in endemic plant species, some of which are endangered (*Cleistochlamys kirkii*, *Diplorhynchus condylocarpon*), and vulnerable to extinction (*Lannea stuhlmannii*, *Rhus sp*, *Sterculia appendiculata*, *Sterculia quinqueloba*). It is also rich in tree species of commercial importance such as *Millettia stuhlmannii*, *Pterocarpus angolensis*, *Azelia quanzensis*, *Combretum imberbe*, *Swartzia madagascariensis*, *Erythroploeum africanum*, *Erythroploeum suaveolens*, *Brachystegia spiciformis* and *Julbernardia globiflora*, to mention some of the main species. The province's production forest area is evenly balanced between simple licenses and forest concessions. According to the Mozambican government<sup>14</sup>, the Provincial Services for Forests and Wildlife (SPFFB) issued cutting permits for a total of 46,055 m<sup>3</sup> of logs in 2014. Simple licenses account for 45 percent of this volume, with the remainder being issued for forest concessions.

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<sup>14</sup> DNTF 2015. Relatório de balanço das actividades 2014.

## 1.2.2 Socio-economic information

In 2007, Zambézia Province had a human population of about 3.85 million people, 1.2 million of which lives in the project area.<sup>15</sup> A recent household survey<sup>16</sup> shows that agriculture, forestry and fisheries play an important role in the Zambézia Province economy and represent the main economic activity of most of its households (77.9%), and about 20% are female-headed households. However, these sectors contribution are not accounted for in the statistics. Women play a key role in farming, collecting firewood, cooking, carrying of family members. The level of illiteracy in the province is high (59.3%) and even highest among female (71.9%) than male (54.3%) headed households. The access to services, inputs and production technologies are more oriented to agriculture production. About 5.4% of the households receive extension information on forestry, while 98.2% on agriculture<sup>17</sup>.

The people in the project area are highly dependent on *miombo* forests for their livelihoods, but quantitative data on benefits local communities derive from *miombo* are rare. In the first systematic survey of income derived from forests in developing countries, covering 8,000 households in 24 countries including Mozambique, CIFOR found that forests and other natural areas accounting for 28% of household income, nearly as much as crops.<sup>18</sup> No disaggregated data on the socioeconomic benefits of forests are available for the project districts, so an overview of the produce and services derived from *miombo* forests is provided here. This is based on published assessments of the use of *miombo* woodland in Zambézia Province and elsewhere in Mozambique, as well as from other countries.

Household studies show that *miombo* woodland resources are a critical element of the rural household economy and contribute significantly to mitigating the impacts of poverty. But at the same time, spatial analysis (for example, in Malawi and Mozambique) confirms the statistical correlation between areas with extensive *miombo* cover and areas with high poverty rates – in other words *miombo* woodlands currently do not appear to provide poor rural households with a pathway out of poverty.

*Miombo* woodlands are a critical part of many farming systems in the area. In the traditional, rotational systems of crop production, *miombo* forests are selectively cut, leaving useful trees standing.<sup>19</sup> The vegetation is subsequently burnt, sterilizing the soil and releasing nutrients for farming. In the absence of modern inputs, and with low population densities, this can be a sustainable system but if cultivation and fires are too frequent, *miombo* regeneration is impaired. *Miombo* leaf litter is also used for composting and fertilizing crop fields, sometimes mixed with manure accumulating in cattle enclosures.

During wetter times of the year, open grassy patches within the *miombo* are sometimes heavily used for grazing, but *miombo* itself becomes quite important as these grass patches are burnt over or are fully grazed late in the season. *Miombo* is seasonal and loses much of its leaf cover during the winter, dry season. In the early spring, the so-called late dry season flush sees the *miombo* coming back to life, with vast swathes of the woodland covered in bright red, orange, and yellow foliage.

Apart from supporting agriculture and livestock-raising activities, forests also contribute directly to people's well-being and income generation. Mainly for women whose role is to collect firewood and

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15 INE 2007. Recenseamento Geral da População e Habitação – Resultados Definitivos, Maputo, Moçambique.

16 INE 2015. Relatório Final do Inquérito ao Orçamento Familiar – IOF.

17 Agricultural Statistics Yearbook 2011-2014

18 Wunder, S. et al. Forests, Livelihoods, and Conservation: Broadening the Empirical Base, World Development (2014), <http://dx.doi.org/10.1016/j.worlddev.2014.03.007>

19 Dewees, P., B. Campbell, Y. Katerere, A. Siteo, A.B. Cunningham, A. Angelsen and S. Wunder. 2011. Managing the *Miombo* Woodlands of Southern Africa: Policies, incentives, and options for the rural poor. Washington DC: Program on Forests (PROFOR). [http://www.profor.info/sites/profor.info/files/docs/Miombo\\_web.pdf](http://www.profor.info/sites/profor.info/files/docs/Miombo_web.pdf)

gather wild foods for their family and for incomes. Two major fruit producing species occur naturally in large stands in *miombo*, namely *Uapaca kirkiana* and *Schinziophyton rautanenii*, both of which have significant economic importance. Additional plant foods comprise tubers and bulbs from woodland from the plant families of Cucurbitaceae and Asclepiadeceae. The roots of *Boscia salicifolia*, found growing on termite mounds within miombo woodlands, are widely eaten during hunger periods in Central Mozambique.<sup>20</sup> Edible leafy vegetables are found growing as “weeds” on land cleared for farming (particularly Amaranthaceae, Capparaceae, and Tiliaceae). A variety of mushrooms, many of which are edible, are produced by fungi growing on the roots of the dominant miombo tree species.<sup>21</sup> Many insects have also become part of the local diet and an important source of animal protein. The best known are masonja, in the Saturniidae family of giant silk moths, whose caterpillars are an important source of protein and cash to local people.

As highlighted above, environmental services from miombo woodlands are essential — for carbon sequestration, for biodiversity conservation, for tourism, and for watershed management — and could become major income-generating opportunities for local communities. The Mozambican land law, through its explicit recognition of local people’s customary rights to land, and the benefits of forest dependent communities envisaged under the forest and wildlife, provides ample opportunity for engaging local communities in payment for ecosystem services (PES) schemes and provide them with the necessary incentives to manage woodlands. Already, wildlife management schemes that display many features of PES have been relatively successful in miombo woodlands in the region.

The project will be implemented in seven districts of the Province (with in brackets the names of participating communities): Maganja da Costa (Muedebo, Ginama, Mocubela Sede, Naico, Muzo, Bala, Nante and Moneia), Pebane (Txalane, Namahipe, Impaca, Mulela and Naburi), Ile (Murrua, Mulevala sede and Gunguro), Gilé (Moneia, Nahetxe and Mamala) and Alto Molocué (Mololo and Mutala)<sup>22</sup>. The project districts and communities were selected based on the following criteria: (i) existence of forest cover and biodiversity of global significance; (ii) 20% revenue sharing mechanism operational; (iii) natural resources management committees (NRMC) in place and operational; (iv) existing NRMC willing to participate in forest conservation and related natural resources management activities; (v) potential for synergies with other actor’s initiatives, particularly the government’s Zambézia Integrated Landscape Management Program, which will be co-funded by a number of donors, including the Forest Carbon Partnership Facility (FCPF) and the World Bank.

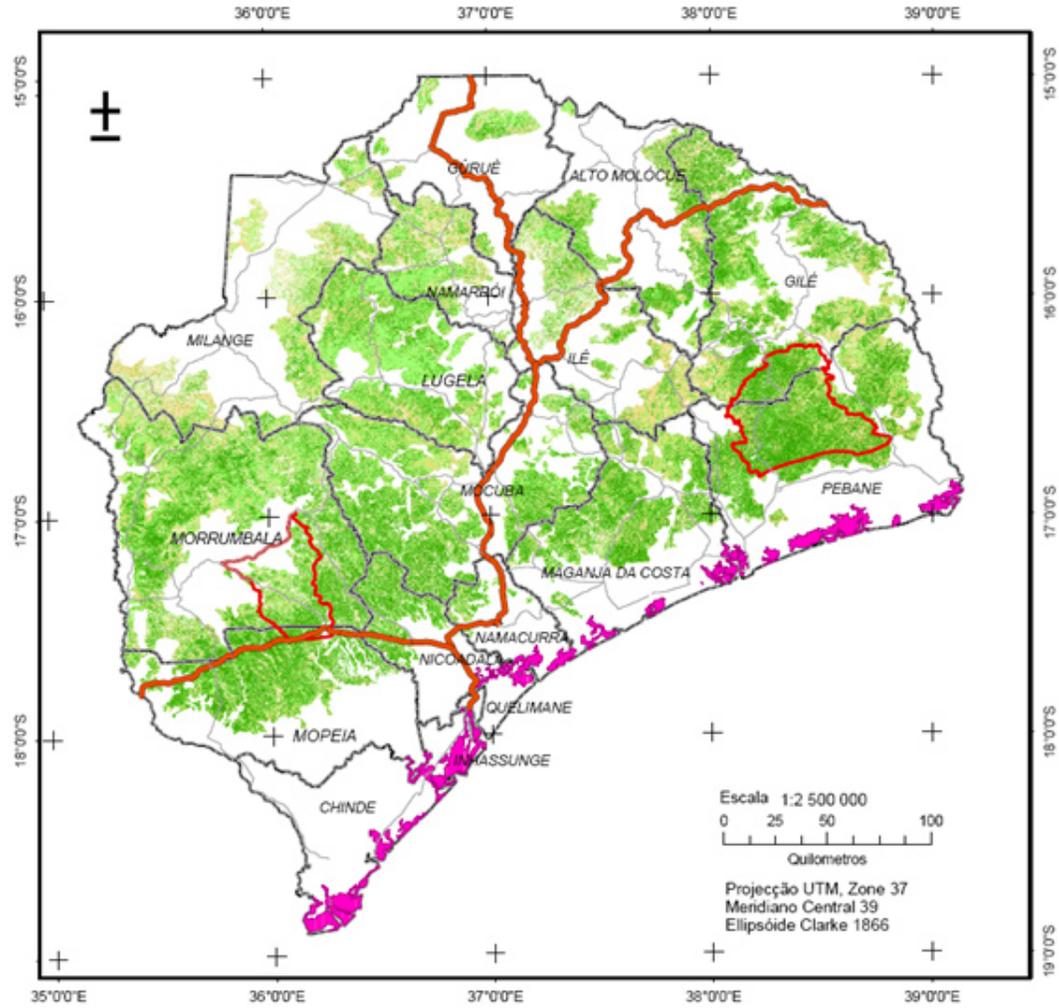
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<sup>20</sup> FAO 2005, cited in Dewees et al. 2011 op. cit.

<sup>21</sup> In Malawi, for example, 362 species of macrofungi are recorded, 14 percent of which are edible (Morris 1994 cited in Dewees et al. 2011 op. cit.).

<sup>22</sup> As noted above, at the beginning of project preparation, there were only five districts, but two of these have been subdivided in 2015: Mocubela having been split off from Maganja da Costa and Mulevale from Pebane.

Figure 2. Zambézia Province. Forest cover map.<sup>23</sup>



**PROVÍNCIA DE ZAMBÉZIA**

Mapa de localização das florestas



República de Moçambique  
 Ministério de Agricultura  
 Direcção Nacional de Florestas e Fauna Bravia  
 Departamento de Florestas  
 Unidade de Inventário Florestal  
 Maputo (2005)

**LEGENDA**

- Estradas principais
  - Outras estradas
  - Limites de Distritos
  - Limites de reservas
- Classes florestais**
- Outros usos
  - Floresta densa (>100 m<sup>3</sup>/ha)
  - Floresta meia densa (70-100 m<sup>3</sup>/ha)
  - Floresta aberta (<70 m<sup>3</sup>/ha)
  - Mangal

<sup>23</sup> Since project preparation started, Maganja da Costa was split into two districts (Maganja da Costa and Mocubela) and Pebane was split into another two districts (Pebane and Mulevala)

The following information summarizes the data collected in each of the specific districts selected for the project.

The distribution of the population over the five (now seven, see footnote 22 above) districts of the project area is shown in Table 1.

**Table 1. Demographics of districts in the project area.**

District	Surface area (km2)	Population number <sup>24</sup>	Population density/km2
Pebane	10,182	224,262	22.03
Maganja da Costa <sup>25</sup>	7,597	314,444	41.39
Ile <sup>26</sup>	5,643	198,424	35.16
Alto Molocué	6,343	375,504	59.20
Gilé	9,526	331,706	34.82

**Pebane District<sup>27</sup>:** Smallholder agriculture is the dominant economic activity in the district, involving one or more members of almost all the households. It is mainly small-scale, low-input and non-mechanized. There is potential for increasing the production of the cash crops cashew and coconut, but yields are currently limited by the age of the trees and by pests and diseases. From 2010 to 2014, the communities participating in the 20% forestry and wildlife tax revenue sharing mechanism received 2.4 million meticaís, about US\$ 800,000. Most of this was invested in social expenditure, such as the building of schools and the replacement of school roofs with corrugated iron.

**Maganja da Costa District<sup>28</sup>:** Smallholder agriculture occupies 75% of the population, and is highly diversified with crops including cassava, rice, sweet potato, sorghum, groundnuts, cowpea, yoke beans, tomato, onion, corn, pumpkin, cabbage, okra, cucumber, garlic, lettuce and watermelon. Fisheries are also important. They are mainly small-scale, whether in the sea or in rivers and lakes – with some aquaculture ponds having been established as well. From 2010 to 2014, the communities participating in the 20% forestry and wildlife tax revenue sharing mechanism received 3.7 million meticaís, about US\$ 120,000.

**Ile District<sup>29</sup>:** Smallholder agriculture is the dominant activity in the district and involves almost all households. Crops grown include corn, beans, cassava, sorghum, peanuts, sunflower seeds, cashew nuts, cotton and tea. There is little irrigation. In recent years, growing of peanuts and beans has increased and there are plans for local investment in processing these crops. Forestry sector operations in the District are also increasing, with 2,000 ha of hybrid clones of Eucalypts having been planted in the first year, with a total area of 44,400 ha of Eucalypt plantations planned over the coming 12 years.<sup>30</sup>

**Alto Molocué District<sup>31</sup>:** has one of the highest population densities of the project area. Smallholder agriculture is the dominant economic activity, most commonly with intercropping of cassava, maize and beans, or sorghum, maize and cowpea, and to a lesser extent peanuts.

**Gilé District<sup>32</sup>:** Smallholder agriculture is the dominant economic activity, mainly cassava, which is sometimes intercropped with millet. Cashew nuts are one of the main sources of cash income. In

<sup>24</sup> Data extrapolated from last population census, done in 2007.

<sup>25</sup> Includes data from the District of Mocubela, which was part of Maganja da Costa District until recently.

<sup>26</sup> Includes data from the District of Mulevala, which was part of Ilé District until recently.

<sup>27</sup> MAE, 2005. Perfil do Distrito de Pebane, Província da Zambézia.

<sup>28</sup> MAE, 2005. Perfil do Distrito de Maganja da Costa, Província da Zambézia.

<sup>29</sup> MAE, 2005. Perfil do Distrito de Ile, Província da Zambézia.

<sup>30</sup> IMPACTO 2014. Zambézia a forestry project Environmental impact assessment report. Maputo, Mozambique.

<sup>31</sup> MAE, 2005. Perfil do Distrito de Alto Molocué, Província de Zambézia.

<sup>32</sup> MAE, 2005. Perfil do Distrito de Gilé, Província da Zambézia

2002, a major aquaculture initiative was launched in the district, with 76 ponds established – 31 of which are now actively used. The Gilé Reserve (2,861 km<sup>2</sup>), which consists mainly of miombo woodland and protects a number of species that are threatened with extinction, covers over a quarter of the District. There are no people inside the Reserve, but there are 10 communities around it, and they have organized themselves in Natural Resource Management Committees. From 2010 to 2014, the communities participating in the 20% forestry and wildlife tax revenue sharing mechanism received 0.75 million meticaís, about US\$ 25,000.

## SECTION 2: PROJECT RATIONALE

### 2.1 Main threats to the environment

#### 2.1.1 Deforestation, forest degradation and fragmentation

Continuing deforestation, forest degradation and fragmentation are reducing the capacity of the forests of Mozambique to deliver ecosystem services such as carbon sequestration and biodiversity conservation. From 1990 to 2010, Mozambique lost around 4,356,000 ha of forest. The rate of natural forest loss has increased from 0.21% (1972-1990) to 0.58% (1990-2005). In addition, the Mangrove area decreased from 408,000 ha in 1972 to 357,000 ha in 2004, with a total loss of 51,000 ha over a period of 32 years. Timber harvesting concentrates on just a few species, some of which have declined significantly as a consequence. The tree species most exploited include *Pterocarpus angolensis* (bloodwood), *Millettia stuhlmannii* (Indian beech), *Azelia quanzensis* (pod mahogany), *Dalbergia melanoxylon* (blackwood or Mozambique ebony), *Combretum imberbe* (leadwood), *Julbernardia globiflora* (African munondo). The level of exploitation of *Combretum imberbe* exceeds the annual allowable cut (AAC), while the level of exploitation of other species is between 56% and 85% of the AAC. *Pterocarpus angolensis* and *Dalbergia melanoxylon* are near threatened according to the IUCN Red List of Threatened Species.<sup>33</sup>

With 0.75%, Zambézia province has the fourth highest deforestation rate in Mozambique, preceded only by Maputo (1.67%), Nampula (1.18%) and Manica (0.75%), which have important urban development. In terms of total area, Zambézia Province has the second highest forest loss of all provinces, with 31,000 ha lost annually, mainly due to shifting cultivation and charcoal exploitation. Within the province, Morrumbala District has the largest forest area, followed by Gile, Mocuba and Pebane, while Namacurra and Gúruè Districts have less potential. Miombo is the characteristic forest ecosystem of the province. Poor forest governance resulting in intensive and illegal logging in Zambézia is also an important cause of forest degradation. A recent national habitat mapping in Mozambique<sup>34</sup>, shows that 74.2% of national surface is covered with "natural" areas, 7.8% with "modified" areas and 18% mixed. Modified areas are closely associated with the concentration of human population, and the province of Zambézia as well as Nampula, coastal area of the South, the Limpopo Corridor, the Beira Corridor, generally show large modified areas.

Deforestation rates of the project site were estimated using freely available Global Forest Watch historical data and results are shown in Table 3<sup>35</sup>. Using the same data, historical annual emissions were calculated using an emission factor of 227.17 tCO<sub>2</sub>eq/ha, based on Above Ground Biomass 135; Below Ground Biomass 37.8; Soil Organic Carbon (SOC) 155.25; Ratio of SOC emitted during first 8 years after clearing 35%.

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<sup>33</sup> <http://www.iucnredlist.org/>

<sup>34</sup> Source: <http://www.biofundmoz.com/habitats/#>

<sup>35</sup> Emission Reductions Program Idea Note (ER-PIN): Mozambique (2015). Zambézia Integrated Landscape Management Program

**Table 2. Forest area, deforestation rate, annual emissions of the project area**

District	Forest area(ha)	Annual Deforestation rate (2000 – 2013)	Annual emissions (tCO <sub>2</sub> eq)
Alto Molocué	331,595	0.98%	846,541
Gilé	618,190	0.56%	846,996
Ile	104,828	1.41%	411,346
Maganja da Costa	137,474	0.63%	215,781
Mocubela	348,979	0.41%	346,612
Mulevala	122,096	0.89%	280,061
Pebane	639,135	0.60%	936,942
<b>Total</b>	<b>2,524,610</b>	<b>0.71%</b>	<b>3,884,464</b>

There are two primary causes of deforestation:

- Shifting cultivation, often associated with unsustainable charcoal production and firewood collection.

Shifting cultivation is the dominant form of agriculture in much of Zambézia province. Traditional long-fallow systems that allow for miombo regeneration are increasingly replaced with shorter fallows. In combination with frequent wildfires, this leads to deforestation. Shifting cultivation is often associated with charcoal production and/or firewood collection. Only about 1-5% of the total charcoal production in Mozambique is registered, the rest is informal and uncontrolled, contributing significantly to forest degradation. Charcoal is an important source of energy, and the major part of the production feeds urban areas. Wood consumption for energy (firewood and charcoal) is estimated at 9.3 and 5.5 million tonnes per year, respectively, for rural and urban areas, equivalent to a per capita consumption of 1-1.2 m<sup>3</sup> per year. Clear-cutting or felling of desirable trees for charcoal production is more common in Mozambique, it takes 8-10 tonnes of wood to make a tonne of charcoal with the traditional methods (earth mounds) used. Charcoal production is an important economic activity that brings substantial income to rural households. Charcoal production happens in two ways. Either producers from urban centres hire members of local communities to produce charcoal, or members of local communities themselves take up the whole production process and sell charcoal to traders directly or at local markets. The former type of operation is usually conducted at a much larger scale. In either case, the need is to streamline charcoal production with active engagement and involvement of local communities, ensuring the production is sustainable, managed and monitored properly. Local communities do not just collect firewood for their own subsistence, but also conduct it as a quick profit making endeavour to sell it to urban markets.

- Illegal logging and unsustainable resource exploitation.

In principle, all logging in Mozambique is governed by regulation and licensing, either through forest concessions (FCs) or simple license (SLs), with effective management plans for sustainable logging. Factors such as illegal logging, the limited capacities of the private sector to use sustainable exploitation techniques and the lack of coordination between actors to guarantee efficient control are compromising the sustainable management of Mozambican forests. In recent years, about 90% of logging in Mozambique has been illegal, with rules and regulations constantly flouted and little enforcement. The volume of illegal wood increased by 88% from 2007 to 2012 and it is destined for both domestic consumption and export. Payment

of logging permits derived from unlicensed wood would have represented revenues of 11.6 million USD for the year 2011<sup>36</sup>. In most cases, whether FC or SL, forest extraction happens without any reference to management plans. Illegal logging is highest in open access forest areas without any permit, but it is also frequent in protected areas. Although current commercial logging is reported to be less than 25% of the legally permitted logging capacity, the large volume of wood extracted illegally threatens the sustainability of the whole sector. It is important to note that in many places where illegal logging takes place, local communities have been complicit, because of their perception that they have very little long term stake in the forest. Large-scale illegal logging is undertaken by private logging companies, most of them exporters. In 2011 several major Mozambican timber exporting provinces reported that more than 90% of all sawn timber and log exports went to China.<sup>37</sup>

### **2.1.2 Illegal hunting of wild animals**

Poaching for commercial purposes is targeting threatened wildlife and it is harmful to biodiversity. This type of hunting specializes in exporting illegal trophies, which are trafficked internationally. Areas close to the borders with neighbouring countries are the most affected by these illegal practices and international routes involve some Asian countries. Two icons in particular (elephant and rhino) are going through an unprecedented crisis. Evidence has emerged that local communities sometimes support and are involved in this illegal activity, sometimes using weapons belonging to Border Guards and the Police of the Republic of Mozambique. The causes that have led to these high levels of poaching and illegal trade are complex. Some factors include poverty at the local level, governance at the national level, weak control capacity at the Conservation Area level (Mozambique has approximately one inspector per 315 km<sup>2</sup> which is 6 times lower than the recommended staff density) and the burgeoning demand for ivory and rhino horn at the global level.

### **2.1.3 Compounding effect of climate change**

In recent decades, climate change has increasingly impacted Mozambique and in particular the lives of smallholder farmers who are highly dependent on natural resources. Temperatures are increasing, rainfall patterns are changing, and the traditional hot and rainy season and cold and dry season are increasingly variable, which affects agricultural activities. Climate models are predicting geographically varied gains and losses depending on changing rainfall patterns. The adverse effects of climate change also impact the livestock sector as changes in precipitation patterns affect the availability of forage, grazing areas and drying up of watering points. The increasing variability in rainfall patterns is likely to increase the risk of destructive wildfires, which is already a major agent of forest loss in the country, and it may also indirectly impact on forests, through the human displacement it is likely to cause.

## **2.2 Baseline projects and programmes addressing main threats**

For the purpose of this project, the baseline has two main parts: (a) the initiatives that the project will directly build on and add value to; and (b) the initiatives that the project has important thematic or geographic complementarities with.

**(a) Existing mechanisms for sharing government revenue with local communities that the project will directly build on and add value to, by turning them into PES schemes.** The project will directly build on and add value to two initiatives:

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<sup>36</sup> FAO & Faculty of Agronomy and Forestry Engineering, Eduardo Mondlane University (2013), "Assessment of harvested volume and illegal logging in Mozambican Natural Forest"

<sup>37</sup> EIA (2013), "Log smuggling, illegal logging and corruption in Mozambique"

- *Ministerial Decree 93/2005 (May 4<sup>th</sup>)*. In 2005 the Government approved a Ministerial Decree establishing the mechanism to share 20% of revenues from wildlife and forest use with the local communities that inhabit the areas where such natural resource use is taking place. The current functioning of the revenue sharing mechanism and its shortcomings are described in detail under the section on Barriers below. While the decree has a nationwide reach, the project will initially work with MITADER to improve the effectiveness and transparency in the implementation of the Decree, and make payments conditional on environmental performance, in seven districts in Zambézia Province only. Zambézia is one province where almost all money collected under the current mechanism is channelled to the beneficiaries' communities in a timely fashion. Towards the end of the project, it will also develop a replication plan to implement the improved revenue sharing mechanism, including the PES element, across the whole of the country.
- *Other sector funds and revenue sharing mechanisms*. In addition to the forestry fund mentioned above, there are many other funds and revenue sharing mechanisms operating in the different sectors that would be able to invest in PES and have expressed an interest in doing so to the FAO project preparation team. These include mining (DNM-MIREME), agriculture (FDA), fisheries (FFP), energy (FUNAE) and tourism (INATUR). But at present, none of these invest in the maintenance and restoration of ecosystem services, or in the compensation of local communities (or other non-state actors) in return for delivering these ecosystem services. The project will work with these sector funds and revenue sharing mechanisms to establish a shared set of PES rules, and to start implementation of some PES pilot activities where sufficient interest exists.

**(b) Initiatives with which the project has important thematic or geographic complementarities.**

- The *Forest Carbon Partnership Facility (FCPF)* has provided a REDD+ Readiness grant to assist Mozambique in getting ready for the implementation of a national Reduced Emissions from Deforestation and Forest Degradation (REDD+) program. REDD+ is the only other form of PES currently under preparation in Mozambique (aside from the PES mechanisms to be developed under this project).<sup>38</sup> Both PES and REDD+ emphasise environmental performance, systematic assessment and reward for results. Therefore, the FAO team has worked closely with MITADER's REDD+ staff during project preparation. MITADER staff are aware that continuing the forest revenue sharing with the local communities without making it conditional on their environmental performance could seriously undermine the implementation of REDD+ in Mozambique, so they are supportive of the project's objective to turn the 20% Decree into a PES mechanism. The government does not want PES or REDD+ to provide payments to individual households as this would create significant conflict in rural communities. Therefore, the National PES mechanism to be established by the project will be based on community-level incentives.
- *REDD+ Monitoring Reporting and Verification (MRV) system*. The Forest Carbon Partnership Facility (FCPF) is providing a second grant to assist Mozambique with REDD+ Readiness, including the establishment of the REDD+ Monitoring Reporting and Verification (MRV) system. Specifically, the grant will help to establish a national forest resource information platform; generate CO2 emissions MRV data for the 10 provinces of the country; create reference emissions levels (RELs) and Reference Levels (RLs); and develop datasets of biomass and carbon estimates. This ongoing work on REDD+ and on MRV will also help to define performance metrics for PES and help the GEF project measure its results indicators, including CO2 emissions avoided. In addition, JICA is also providing technical assistance on REDD+ MRV.

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<sup>38</sup> REDD+ can be construed as PES, with CO2 emissions reduction as the Ecosystem Service that is rewarded.

- *The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) together with the Southern African Development Community (SADC) embarked in a project to develop MRV Systems.* Two pilot sites were selected in mopane woodlands of Mozambique and Zambia, respectively. Although, in Mozambique the forest inventory was cancelled due to risk of mines, the project relied on test sites in Zambia to ascertain biomass and emissions in Miombo woodlands and the data collected within the project can be used to establish a reference level to infer on future forest cover changes and emissions. The project contributed to develop technical capacities within the national forest directorates.<sup>39</sup>
- *The Zambézia Integrated Landscape Management Program (ZILMP),* is a flagship initiative of MITADER planned for 2016-2020. This program, which will be co-funded by the Forest Investment Program (FIP) and the government of Mozambique, aims to promote integrated management of forest and agriculture landscapes in Zambézia Province, by promoting land use carbon emissions reductions, mainly from reducing deforestation. The project has two components: (i) enhancing forest governance at the national level, and (ii) sectoral interventions in forestry, agriculture and biomass at the landscape level in Zambézia Province.<sup>40</sup> The complementarity with the GEF project lies in the fact that ZILMP will work to achieve CO<sub>2</sub> emissions reductions in the same seven Districts in Zambézia Province but in different communities, thus reducing the likelihood of “leakage” of deforestation and forest degradation from the project area to adjacent areas.
- The project *"National Forest Monitoring and Information Systems for a transparent and truthful REDD+ process"* (GCP/GLO/456/GER) will build capacity in eighteen countries in Africa (including Mozambique), South America and Asia, to enable them to do their own Greenhouse Gas inventory from Agriculture, Forestry and Other Land Uses according to international standards. The initiative is funded by the International Climate Initiative of the German Ministry for Environment, BMUB.<sup>41</sup> Training in Mozambique will start in June 2016 and the tree cover and tree cover change assessment will be completed in December 2016. The project also includes the development of Collect Earth (CE), an innovative Free and Open Source Software (FOSS) developed by the Forestry Department of the Food and Agriculture Organization of the United Nations (UN FAO) in collaboration with Google. CE allows extensive and detailed land assessment based on sampling approaches. The integration with Google technologies such as Google Earth, Earth Engine and Earth Engine Code Editor and the availability of free satellite images at high and very high resolution allow powerful, quick and robust historical land analysis. Thanks to its flexibility and accuracy, CE can facilitate the establishment of baseline assessments and trends monitoring also through specific indicators such as the number of trees/shrubs, the area covered by trees/shrubs, the country-specific land use classification, the number of crop harvests per year, etc. The user friendliness and smooth learning curve of CE make it a perfect tool for capacity development in developing countries.<sup>42</sup>
- *The Mozambique Conservation Areas for Biodiversity and Development Project - MOZBIO program* is a platform to promote conservation, growth and poverty reduction in and around protected areas that is being implemented over the 2014-2018 period. The program simultaneously invests in biodiversity conservation, tourism development and poverty reduction in 11 protected areas nationwide. The MOZBIO program will contribute to the GEF project through the funding of income-generating sustainable forest management activities for

<sup>39</sup> GIZ/SADC. 2015. REDD+ in Mopane woodlands of Southern Africa

<sup>40</sup> The FIP Investment plan is available on [http://media.wix.com/ugd/187613\\_16c46334212646789b022866df40c5e5.pdf](http://media.wix.com/ugd/187613_16c46334212646789b022866df40c5e5.pdf)

<sup>41</sup> See <http://www.international-climate-initiative.com/en/> and <http://www.bmub.bund.de/en/> respectively.

<sup>42</sup> Several countries have already completed the national LULUCF assessment and other international initiatives have adopted the CE system in their activities. CE also integrates with the ALU software developed by US EPA and Colorado State University to perform National Greenhouse Gas Inventories. For further information please see <http://www.openforis.org/tools/collect-earth.html> and <http://www.fao.org/forestry/nfms-for-redd/en/>

local communities in the buffer area of the Gilé Wildlife Reserve in Zambézia Province, to the tune of US\$ 1 million. Planned income-generating activities include growing of cashew nuts in agroforestry systems and sustainable forest management activities, as alternatives to activities causing deforestation and forest degradation, such as shifting cultivation and uncontrolled charcoal production. The project will also address the issues involved to register community associations in the area and create incentives towards conservation among local communities and local governments, which in turn reduces the pressure on natural resources. These activities are interrelated with and will complement the GEF project in maintaining sustainable activities for PES.

- *The Dedicated Grant Mechanism (DGM)* aims to promote sustainable local development through donations to local communities to develop their own projects and enhance community participation on FIP and REDD+ process. The DGM is a global initiative that was conceived and developed as a special window under the FIP to provide grants to Indigenous Peoples and Local Communities (IPLCs) intended to enhance their capacity and support initiatives to strengthen their participation in FIP and other REDD+ processes at the local, national and global levels in the FIP and the REDD+ process. DGM will operate alongside the CBZILMP and will be guided by civil society organizations directly involved in the development of sustainable community natural resources management in subjects such as Land Governance, Sustainable management of natural resources, Community participation, Gender and rural development. The total budget of the mechanism for Mozambique is 4.5 million and the consultation process to ensure national stakeholder representation has started
- The recently announced “*Standing Forest*” (*Floresta em Pé*) project will make a major investment in controlling illegal logging, which will improve the enabling environment for sustainable forest management in the country, and in Zambézia Province, where illegal logging has been rife. The “*Floresta em Pé*” project is a planned 10.6 billion meticaís (the equivalent of US\$300 million) forestry project that is part of an ambitious national rural development program (“*Programa Estrela*”<sup>43</sup>) launched by the Mozambican government in 2015. Over the 2015-2019 period, the “*Floresta em Pé*” project intends to finance the certification of 50 forest concessions; capacity building for 800 forest and environmental law enforcement officers; building of five control posts; distribution of 12,000 hives to 800 beekeeping associations; establishment of 20 honey processing facilities; financing of 20 district carpentry workshops and the opening of two forestry nurseries. Under this project, a revision of the forest law is also planned, to place more emphasis on (i) forest conservation; (ii) integrating climate change; (iii) developing innovative models of forest resource use, abandoning the system of Simple Licences; (iv) reinforcing the rights of local communities and enhancing community forest management; (v) regulating the charcoal production systems; and (vi) enhancing forest law enforcement.

**Table 3. Co-financing summary**

<b>Project/Program</b>	<b>Source of funds</b>	<b>Date</b>	<b>Contribution to FAO/GEF project</b>
Ministerial Decree 93/2005 (May 4 <sup>th</sup> ) that establishes mechanism for channelling 20% of fees from forest and wildlife concessions and licences nationwide to local communities	Government of Mozambique	2005-ongoing	USD 4.8 million
REDD+ Readiness Preparation Grant (national)	FCPF	2012-2017	USD 3.6 million

<sup>43</sup> The full title of the program is “Programa nacional de desenvolvimento rural – Estrela”

<b>Project/Program</b>	<b>Source of funds</b>	<b>Date</b>	<b>Contribution to FAO/GEF project</b>
Zambézia Integrated Landscape Management Program	FIP	2016-2020	USD 24.0 million
National Forest Monitoring and Information Systems for a transparent and truthful REDD+ process	FAO, BMUB	2014-2017	USD 0.2 million
Dedicated Grant Mechanism	FIP	2016-2020	USD 5 million
<b>TOTAL</b>			<b>USD 37,600,000</b>

## **2.3 Justification for and barriers to PES mechanisms and incremental reasoning**

### **2.3.1 Justification for payment for ecosystem services mechanisms**

How could deforestation and forest degradation in the project area be reduced most effectively and efficiently? There is a strictly protected area in the project area, the Gilé Reserve, straddling the border between the Gilé and Pebane Districts, which has a much lower deforestation rate than the surrounding areas: 0.009% for the Reserve versus 0.61% outside. However, establishing large additional strictly protected areas would be difficult as the rest of the project area is densely populated and people are highly dependent on forest resources for their energy and other livelihood needs. Therefore, it would take a long time to negotiate with the local communities, and in the end it might be impossible to enforce.

An alternative approach would be to improve incentives for the local communities in the project area to conserve forests. As noted above, local communities currently derive little benefit from the forest management and conservation activities in the project area. A payment for ecosystem services (PES) mechanism could help to change this, especially if it were combined with a program to help communities improve agricultural productivity and energy efficiency, for example through conservation agriculture, more sustainable charcoal production and other income-generating activities based on sustainable forest management, such as bee-keeping.

The existing government revenue sharing mechanism that allocates 20% of taxes paid by forestry operators to local communities would be an ideal candidate for testing PES, for a number of reasons. First, as it is based on an existing domestic source of finance, it would not run into the problems that many PES projects have faced once external funding for the payments dried up. Second, it would help to improve the management of forest concessions and licences (the source of the 20% revenue share), as it would reduce their destruction by wildfires and by illegal logging, which local communities would have a strong incentive to prevent or to signal to government enforcement agents.

Third, making the 20% revenue share conditional on the environmental performance of the local communities would align it with the Reduced Emissions from Deforestation and Degradation (REDD+) programme that the government is preparing in the same area. Both the Ministry of Lands, Environment and Rural Development (MITADER), which is responsible for forests, and the provincial and district authorities consulted during project preparation are in favour of testing PES in the project area, as long as the payments are made at community and not individual/family level. Apart from testing forestry PES with MITADER over 4 million hectares in Zambézia Province as well as preparing the ground for its national replication (component 3) and building capacity for this (component 2), the project will also initiate the mainstreaming of PES in other sectors (component 1). Given the mixed results of previous PES projects, the project preparation team has emphasized the incorporation of lessons learned from experience and the clarification of key issues as required by

STAP. In the next session, the main barriers to introducing PES, and the way the project intends to address these, are highlighted.

### **2.3.2 Barriers to the introduction and implementation of payment for ecosystem services mechanisms**

Barrier 1: Lack of an enabling policy and regulatory environment for PES

The first barrier is a lack of an enabling policy and regulatory environment for Payment for Ecosystem Services (PES). This barrier is due to a few gaps in the policy and regulatory framework, to poor law enforcement and partial implementation of regulations, and to a lack of awareness of decision makers about PES. This barrier is reinforced by a lack of awareness of decision makers, especially outside the forestry sector, on the potential for PES to contribute to ecosystem conservation and restoration as well as rural people's livelihoods.

Mozambique has a progressive legal framework for the promotion of sustainable forest and land management and the participation of local communities, including the Law on Forests and Wildlife (1999) and the Land Law (1997). A Ministerial Decree concerning Forestry should be highlighted: the 2005 decree establishing a mechanism for channelling 20% of forestry and wildlife concession and licence fees to local communities<sup>44</sup>. Through these laws and regulations, Mozambique seeks to balance social, environmental and economic issues, paying special attention to the role and benefits of rural communities. A number of regulations have been adopted to define mechanisms for benefit sharing with local communities and for delegating some implementation functions to non-governmental, civil society and private actors. Unfortunately, these regulations are interpreted in very different ways by different stakeholders at different levels.

As a consequence, the practical results of these laws and regulations on the ground have not been as intended. The regulatory framework is inadequately enforced and there is a lack of coordination between different stakeholders. The absence of clear and transparent rules provides room for the exercise of discretionary powers, which allows for favouritism and is a fertile ground for corruption.

Currently, payments from the 20% Decree are channelled to communities living in areas where timber is extracted and wildlife based tourism or hunting is taking place, without any conditionality, except for the establishment of a Natural Resource Management Committee and the opening of a bank account. The mere fact of living in the area where such activities are conducted is considered to be a sufficient condition for eligibility. No environmental performance criteria are applied, so communities that burn the forest and facilitate illegal logging in near-by FC and SL are receiving the same amount as communities that control fire and inform authorities of the presence of illegal loggers – an issue that the project will address head-on. There is a missed opportunity to tie such payment to environmental performance, for example to the reduction of destructive wildfires, which is one of the key causes of forest degradation in the country. At the same time, the project will also help to improve transparency and equity in the implementation of the Decree, and strengthen the capacity of local communities to improve the management of forest lands (see barrier 2 below for details).

Moreover, though by law NRM Committees must have at least 30% female participation, women are usually marginalized in the decision-making process in the NRM Committees and the local associations, whereas they are the household members who are most dependant on forest products for their income and who play a major role in the use and management of the forest resources. Despite improvements in Mozambican land law, women are still marginalized in practice in terms of their

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<sup>44</sup> Disbursement of the 20% revenue share is conditional on local communities having formed a Natural Resources Management Committee and opened a bank account. According to available data, Zambézia is the province in which most money is rewarded to local communities in the framework of the implementation of the 2005 Ministerial Decree.

access to land access and of their role in related decision-making processes. The effective economic and political empowerment of women is required to improve household incomes of forest communities but also to ensure the sustainability of forest resources management.

#### Incremental reasoning

The project will develop a common set of rules for Payment for Ecosystem Services (PES), together with MITADER and other key sector ministries. The project will help the government amend existing regulations to help integrate PES rules and clarify conditions for the participation of local communities, men and women alike. In addition, the project will develop communication strategies and engage key sector funds and revenue sharing mechanisms in policy dialogue, in order to raise awareness about the potential of PES. This dialogue will be informed by pilot PES implementation in Zambézia Province as well as by best practice from other countries. FAO, with its close links to most of the relevant sector ministries and with experience with PES design and implementation in many countries, is well-placed to support this.

The project will rely on the government's "Floresta em Pé" project and the component of the Forest Investment Program dedicated to national policy and institutional strengthening to improve forest governance and law enforcement more generally speaking.

#### Barrier 2: Weak human and institutional capacity to implement PES mechanisms

A detailed study of the implementation of the 20% Decree was conducted in 2012<sup>45</sup>, looking at the status of distribution of benefits from forests and wildlife to local communities and the problems encountered in the disbursement of the 20% as well as the planning and implementation of community-level activities using the funds disbursed. The study found that despite this being the focus of CBNRM in the past decade the knowledge of the Ministerial Decree n° 93/2005 and its practical implications was still limited particularly at local level, not just with the communities but also with the local administrative authorities. The institutional capacity of government institutions in charge of forests for implementation of the decree is limited due to a combination of factors. The study found that CBNRM in general, and more specifically the accompaniment of the NRMCS in obtaining and managing the 20% revenue share received low priority in terms of allocation of human resources in all Provincial Forest and Wildlife Services, and that funds budgeted for these activities were often not released. The absence of more detailed guiding principles for the implementation of the 20% Decree (which consists of 1.5 pages of text only) also severely limits its correct application on the ground and leads to conflicts as the basis for revenue sharing is not transparent for the beneficiaries.

The meagre funds raised through the 20% mechanism, the requirement for formal registration of the Natural Resource Management Committees (NRMCS) and opening of bank accounts, and the limited transparency and accountability of the local institutions involved hinder the potential benefit of this legal provision. While there are several stakeholders involved, including communities and private sector operators whose licenses entail payment of royalties, the limited coverage by NGOs to support all communities (about 1089 in 2012 across the country) eligible for this revenue sharing also limits the number of beneficiaries. The absence of transparency, documentation and timely sharing of information on revenue generated annually by Government and indication of beneficiaries also means that eligible communities are not aware of their entitlements. The community leaders and members of local management committees are at the centre of this process in terms of taking responsibility for managing resources. These local leaders are often not accountable to the rest of the community. Women are particularly marginalized. Finally, the lack of a monitoring framework at all levels reduce

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<sup>45</sup> Chidiamassamba et al. 2012. Estudo do impacto do Diploma Ministerial n° 93/2005 sobre os mecanismos que regulam a canalização dos 20% das taxas de exploração florestal e faunística às comunidades. ("Study of the impact of Ministerial Decree No 93/2005 on the mechanisms for channelling 20% of forest and wildlife taxes to communities")

the opportunity for making adjustments in the process and to improve decision making processes that could lead to greater impact on community's livelihoods and on the resources.

The field mission undertaken during project preparation revealed that NGOs such as RADEZA, ORAM, FONGZA and ACODEMAZA are actively involved in the dissemination of the 20% Decree, the identification of local communities that qualify to receive these funds, and the provision of support for their formal registration and opening of bank accounts.<sup>46</sup> They also train local community members in the areas of leadership, participatory management of natural resources and monitoring of the projects. The project will partner with these local organizations already working in the field, strengthening their capacity to engage effectively with local communities, and addressing their weaknesses<sup>47</sup>, such as lack of internal management and financial self-sufficiency, lack of capacity to empower local communities and of having a mandate from them. In addition, the project will strengthen their ability to integrate PES, which is a new subject in the country and less understood at local level, into the existing 20% revenue sharing mechanism.

### Incremental reasoning

The project will remedy the lack of human and institutional capacity to implement PES mechanisms<sup>48</sup> in a number of ways. At the institutional level, rules of the game will be established for engaging with local communities and agreeing PES performance criteria with them, as well as transparent rules for sharing revenue across different communities and frameworks for monitoring implementation. At the individual level, capacity will be strengthened both through courses and "on-the-job", by involving government and NGO staff and members of Natural Resource Management Committee (who represent the local communities) actively in the implementation of pilot PES activities under Component 3. Prior capacity assessments will enable the project to come up with well-tailored individual training courses and institutional strengthening programmes and to help government bodies develop institutional mandates for PES and mechanisms for their implementation.

#### Barrier 3: Insufficient incentives for local communities to engage in forest conservation

While communities have clearly defined legal rights allowing them to benefit from forest conservation and sustainable management, they are only rarely able to assert those rights in practice. As a consequence, many communities engage in unsustainable forest use activities, e.g. illegal charcoal exploitation and helping large-scale illegal loggers. As described above, a forestry and wildlife revenue sharing mechanism ("the 20% Decree") was established in 2005, but this has suffered from a lack of transparency and efficiency in implementation, and is not conditional on the environmental performance of local communities. The project will improve this revenue sharing mechanism by making it more transparent and equitable and by integrating PES in it.

Zambézia disburses more money than any other province through the 20% Ministerial Decree, but according to an evaluation of the implementation of the decree carried out in 2012, it is also one of the provinces with the most problems regarding the use of these funds.<sup>49</sup> The present project intends to improve the effectiveness of and transparency in the implementation of the Decree, while at the same time enhancing its contribution to sustainable natural resource management, by making disbursement of funds under the Decree conditional on local communities meeting certain environmental performance standards. This will also make the Decree more supportive of the government's evolving

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<sup>46</sup> Diploma Ministerial Nr. 93, issued in 2005.

<sup>47</sup> These weaknesses are often of a structural nature, caused by donor dependence and the multiplication of activities. IBIS 2012. IBIS in Mozambique. Country Strategy 2013-2017.

<sup>48</sup> This is the key entry point for the project. Institutional capacity constraints, especially with regards to the implementation of the 20% forest revenue sharing mechanism that the project will attempt to turn into an operational PES mechanism,

<sup>49</sup> Chidiamassamba et al. 2012. Estudo do impacto do Diploma Ministerial n° 93/2005 sobre os mecanismos que regulam a canalização dos 20% das taxas de exploração florestal e faunística às comunidades.

REDD+ strategy. The project will test the resulting forestry PES scheme in seven Districts in Zambézia Province before the government replicates it throughout the country.

During the process of data gathering for the formulation of this project, local communities as well as forest operators emphasised that there is a dramatic decline of forest resources in Zambézia due to illegal logging and corruption, often perpetrated with involvement of local communities and leaders. In order to protect communities and provide incentives for conservation it was pointed out that agreed criteria should be used to disburse the funds. Private sector actors stressed that they are willing to be part of the process.

### Incremental reasoning

The project will remedy this situation by implementing activities that will help communities in seven Districts in Zambézia Province to access benefits due to them under the law, and by making the 20% revenue sharing conditional on good environmental performance, according to criteria agreed with the communities. The project will also develop a replication plan to roll out the improved forest and wildlife revenue sharing mechanism (including a new PES element) nationwide.

## **2.4 Expected global environmental benefits**

### **2.4.1 SFM**

The total project area is 3.9 million ha, slightly more than half of which is covered in forest. The annual deforestation in the project area is currently 17,101 ha, implying a projected 85,505 ha forest loss for the proposed five-year project period. By promoting the sustainable use and conservation of miombo dryland forest ecosystems, this project, working under the aegis of the ZILMP, aims to reduce deforestation by 30% in the first four years and by 40% thereafter.<sup>50</sup> This will result in a reduction of deforestation of 27,361 ha over the five-year project duration. The proposed GEF PES project would account for about a quarter of this, 6,840 ha. In addition, forest degradation will be reduced through better forest management and reduced wildfire.

**Table 4. Overview of SFM activities to be undertaken in the project.**

Main SFM activities	Description	Strategies/activities
Stimulate vegetative regrowth from rootstocks and stumps	<i>Miombo</i> species persist through vegetative regrowth from rootstocks & cut stems, the impact of shifting cultivation (clear cut) stimulates typical natural disturbances to which <i>Miombo</i> woodlands are adapted to ensure sustainable resource use, as long as regrowth from rootstocks and stumps is promoted and wildfire managed, especially during the first few years after cutting.	<ul style="list-style-type: none"> <li>• Develop capacity of NRMC on subjects such as species and structure of the miombo forest and cutting trees at ground level to stimulate coppicing</li> <li>• Develop and implement specific training courses for small scale farmers on <i>miombo</i> vegetation dynamics and how they can benefit from mimicking these</li> <li>• Introduce regular, managed harvesting cycle (Cyclic clearing-cropping-fallow-woodland process)</li> </ul>
Selective thinning and pruning	Thinning will create growing space, better growth, thicker stems and better hygiene and pruning small branches and forked stems will produce more straight poles.	<ul style="list-style-type: none"> <li>• Support the introduction and development of secondary forest management</li> <li>• Support the use of thinning and pruning resources for the production of poles &amp; fuel wood</li> </ul>
Non-timber forest products (NTFPs)	Sustainable forest management is not only about wood, but about managing the supply of both wood and non-timber product to satisfy the needs of users. Management actions can increase the production of NTFPs such as honey, mushrooms and fruits. Special measures may be needed for NTFPs that derive from (potentially) destructive harvesting, such as medicinal bark.	<ul style="list-style-type: none"> <li>• Develop capacity to consider various options to optimize/improve use of natural resources through alternative resources in:               <ol style="list-style-type: none"> <li>i) disturbed woodland or degraded sites;</li> <li>ii) multiple-use agricultural and forestry systems;</li> <li>iii) domesticating NTFPs in home gardens</li> </ol> </li> </ul>

<sup>50</sup> Emission Reductions Program Idea Note (ER-PIN): Mozambique (2015). Zambézia Integrated Landscape Management Program

Main SFM activities	Description	Strategies/activities
Develop alternative resources	Some products from some species may be in such short supply that alternatives are needed	<ul style="list-style-type: none"> <li>• Develop alternative products/substitute resources through: <ul style="list-style-type: none"> <li>i) Other species, including introduced tree species</li> <li>ii) Other plant parts (leaves versus bark for medicinal use)</li> <li>iii) Change to other products (Beekeeping, etc)</li> <li>iv) Domestication through selective breeding</li> </ul> </li> </ul>
<b>Wildfire management</b>	Wildfire is an important cause of forest degradation in Zambézia Province and reducing it is a priority for the reduction of CO2 emissions	<ul style="list-style-type: none"> <li>• Help communities reduce destructive wildfire by <ul style="list-style-type: none"> <li>i) agreeing rules and seasons for the use of fire</li> <li>ii) develop fire breaks around regenerating areas where fire should be excluded</li> <li>(iii) use early burning to prevent destructive late dry season fires where appropriate</li> </ul> </li> </ul>

## 2.4.2 CCM

The annual GHG emissions from deforestation and forest degradation in the project area are around 3.9 million tCO<sub>2</sub>eq (see Table 2). The emissions reduction potential of the ZILMP to which the proposed GEF PES project would contribute is about 10.9 million tCO<sub>2</sub>eq for the 8 years of the program, based on a 30% reduction of deforestation in the first 4 years and a 40% reduction of deforestation in the last 4 years of the program. In addition, the carbon sequestration potential is about 4 million tCO<sub>2</sub>eq. Out of this total potential of 14.9 million tCO<sub>2</sub>eq, the government of Mozambique would seek to sell about 10.4 million tCO<sub>2</sub>eq (70%) to the Carbon Fund of the Forest Carbon Partnership Facility, leaving about 4.5 million tCO<sub>2</sub>eq unsold.<sup>51</sup>

Specific to the GEF project, the direct Global Environmental Benefits (GEBs) to be generated are: avoided deforestation of 6,840 ha of diverse miombo forest ecosystems and 1.49 million tonnes CO<sub>2</sub><sup>52</sup> equivalent worth of emissions related to deforestation and degradation. This assessment has been made after a detailed analysis and, among others, using the following:

- Guidelines for greenhouse gas emissions accounting and reporting for GEF projects<sup>53</sup> (for the overall approach)
- FAO's EX-ACT: Ex-ante greenhouse gas balance of agriculture and forestry development programs<sup>54</sup> (for calculating specific impacts)
- Mozambique Forest Carbon Partnership Facility (FCPF) Emission Reductions Program Idea Note ER-PIN<sup>55</sup> (as one of the main data sources on land use land cover changes including type deforestation and forest degradation)
- More specifically for the area calculation:
  - the specific project activity area- that is the pilot testing of revenue sharing mechanism in 7 Districts in Zambézia Province where the avoided deforestation is expected
  - Current general annual rate of deforestation of 0.71%
  - Within the above 7 districts, the potential capacities of the 26 NRM project committees to implement, and their views

<sup>51</sup> Emission Reductions Program Idea Note (ER-PIN): Mozambique (2015). Zambézia Integrated Landscape Management Program

<sup>52</sup> This is slightly higher than the 1.39 million tCO<sub>2</sub>eq mentioned in the PIF, which in the absence of reliable carbon data, was based on more conservative estimates.

<sup>53</sup> [http://beta.thegef.org/sites/default/files/council-meeting-documents/EN\\_GEF.C.48.Inf.\\_09\\_Guideline\\_on\\_GHG\\_Accounting\\_and\\_Reporting\\_for\\_GEF\\_Projects\\_4.pdf](http://beta.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.Inf._09_Guideline_on_GHG_Accounting_and_Reporting_for_GEF_Projects_4.pdf)

<sup>54</sup> <http://www.fao.org/tc/exact/ex-act-home/en/>

<sup>55</sup> Using the figure of 217.48 tCO<sub>2</sub>eq/ha, or 59.31 tC/ha, cf Mozambique's ER-PIN.

- Forest vegetation type in these specific locations ( e.g., the relative share of tropical moist, tropical dry, and tropical wet zones)
- Time lag in building the necessary capacities (particularly of local communities)- and the onset of intended benefits after implementing the SFM practices as anticipated in Outcome 2 and Outcome 3.
- The complementary role the GEF project vis-à-vis the other larger projects (e.g., FIP, FCPF) that have similar objectives and generate bigger impacts. The GEF project is an integral part of these national interventions that endeavour to bring down current rates deforestation.
- Ex ante carbon impact assessment experts’ and key project stakeholders’ inputs/suggestions on some of the assumptions and variables.

### **2.4.3 BD**

As concerns biodiversity conservation, the main focus of the project is on integrating biodiversity into sector policies and regulations, and in implementing some of these regulations in the pilot area, consisting of seven districts in the Zambézia Province, covering about 3 million hectares.

In doing so, the project will contribute to achieving Aichi Target 14: “By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.” At the same time, the project will help to achieve objective 2.1 of the Mozambique NBSAP “To promote the sustainable and integrated use of flora resources (timber and non-timber), ensuring the creation of benefits for all those involved in their exploitation, with an emphasis on local communities.” The project will help to mainstream biodiversity conservation in the forestry and wildlife sector, by integrating a PES element in the existing revenue sharing mechanism and improving its implementation over an area of almost 4 million hectares in Zambézia Province. In addition, the project will also elaborate a replication plan to roll out the improved forest and wildlife revenue sharing mechanism nationwide and help to develop rules for the application of PES in other sectors such as mining, agriculture and fisheries. For these other sectors, the project may move beyond the development of regulations, if some sectors are sufficiently interested to engage in the implementation of PES pilots. Whether or not other sector pilots will be implemented will be decided at the mid-point of the project implementation period.

In addition, sustainable management of forests, incorporating biodiversity concerns, around the conservation areas in Zambézia province will no doubt contribute to conservation of globally important plant and animal species. As mentioned above, the project districts and the province in general are home to important endemic plant species and endangered wildlife. It will be difficult, however, to monitor biodiversity impacts of the project directly, as the underlying wildlife and plant populations occur in a highly diffuse manner and fluctuate considerably over time – and it will be even harder to assign changes in plant and wildlife populations to specific project activities. Therefore, the project will use proxies such as deforestation rate and wildfire incidence to assess its biodiversity impact on the ground.

## SECTION 3: THE GEF ALTERNATIVE

### 3.1 Incremental reasoning and overall strategy for the project

The Government of Mozambique has put in place a policy and regulatory framework that supports community involvement and benefit sharing in the sustainable use and conservation of forest and wildlife resources, through the 20% revenue sharing mechanism described above. However, it has not been able to ensure that this mechanism contributes to forest conservation, because disbursement of the 20% revenue share is currently not conditional on the environmental performance of the local communities and because of a lack of institutional capacity to implement the existing policy and regulatory framework effectively. Without GEF, revenue sharing would probably continue, but in the absence of a strong link between the payments made and the forest management performance of local communities, the provision of forest ecosystem services, including global environmental benefits such as forest carbon emissions reductions and biodiversity conservation would be much lower. In addition, without GEF the socioeconomic development impact of the 20% revenue sharing mechanism would be hampered by the lack of communication and information sharing by government officials involved in its implementation and by the limited ability of the local Natural Resource Management Committees to use the funds effectively and transparently.

The GEF investment will support the design of a national PES mechanism that will channel the 20% revenue share towards those communities whose resource use practices contribute to forest conservation. In view of the problems encountered in implementing the decree highlighted in Section 2.3 above, the GEF funds will also help to build the capacity of key government and non-government stakeholders for more transparent and effective implementation of the revenue sharing mechanism. With local communities, through the PES scheme, undertaking sustainable resource utilization practices and monitoring to prevent illegal activities in the miombo woodlands, threats to biodiversity will be significantly reduced. The SFM practices, sustainable agriculture and fire control measures adopted by the communities, in combination with the reduction in illegal logging brought about by improved community monitoring will ensure that the forest cover is maintained, and that degraded forests are restored, thus enhancing carbon stocks and reducing greenhouse gas (GHG) emissions while conserving biodiversity.

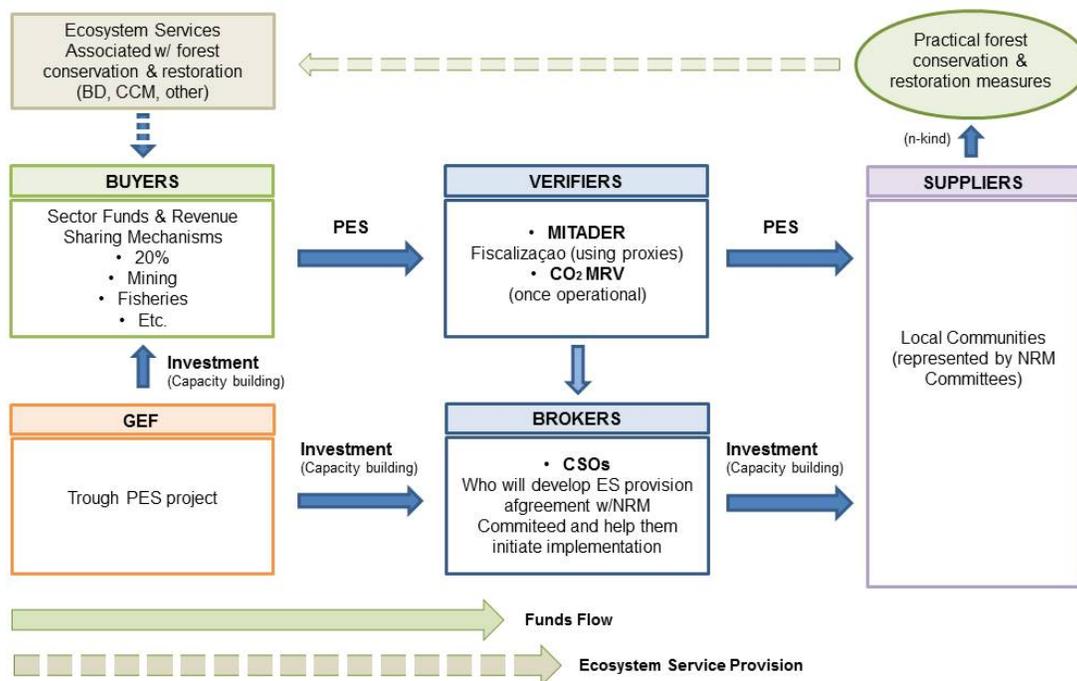
Following GEF STAP (2010)<sup>56</sup>, PES can be defined as (i) voluntary; (ii) contingent transactions between: (iii) at least one seller and (iv) one buyer (v) over a well-defined Ecosystem Service, or a land use likely to secure that service. The PES mechanism that the project will put in place is summarized in Figure 3. On the right are the local communities, who are the “sellers” of forest ecosystem services such as carbon sequestration and biodiversity conservation, which result from concrete activities such as sustainable forest management (SFM), sustainable agriculture (reducing shifting cultivation) and wildfire control. On the left are the “buyers” of the forest ecosystem services: government revenue sharing mechanisms and funds of different sectors. For the time being, the buyers are all state actors, so there is no “market” as such – though that might change in the future. Of these, only the forest sector revenue sharing mechanism has committed to PES implementation on the ground (Component 3); other sectors will participate in the project to explore the potential for them to invest in supply of and payment for ecosystem services (Component 1). The contingent transactions in the diagram are represented by arrows, which represent the flows of ecosystem services (dotted lines) and of funds (solid lines). In the middle of the diagram are the “verifiers” from the Ministry in charge of forests (MITADER), who verify the environmental performance of local communities and authorize PES payments on the basis of such verification, and the “brokers” (NGOs), who will be contracted by the project to work with local communities to improve their agricultural and forestry practices. It is worth noting that GEF funds will only be used for improving government and local

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<sup>56</sup> Wunder, S.; Wertz-Kanounikoff, S.; Ferraro, P. 2010. Payments for Environmental Services and the Global Environment Facility: A STAP advisory document. GEF, Washington, D.C.

community capacity to engage in PES and for facilitating improved land use practices by communities; all PES payments to local communities will be funded by existing government revenue sharing mechanisms and funds, thus improving the chances of project results being sustainable.

**Figure 3: Integrating PES into government sector funds and revenue sharing mechanisms**



After the proposed project’s closure in 2020, when a replication plan developed by the project will help to roll out the improved forestry revenue sharing mechanism tested in Zambézia Province nationwide, the US\$3.6 million GEF contribution will cause an estimated US\$14 million of government forestry revenue per decade to be invested in a functional mechanism to make payments for the ecosystem services (PES) provided by the *miombo* woodlands to the local communities that have helped to conserve and restore them. If in addition the project achieves its objective of generating an interest in forest PES investments with government funds and revenue sharing mechanisms in other sectors, a multiple of this amount could be mobilized.

The direct **project beneficiaries** will be the local communities organized into 26 Natural Resource Management Committees (NRMC) from the 7 districts of the Province of Zambézia that make up the project area: Alto-Molocué, Maganja da Costa, Pebane, Gilé, Ile, Mocubela and Mulevala. This amounts to around 150,000 rural dwellers, including more than 50% women<sup>57</sup>. These 150,000 people (or 25,000 rural households) will benefit from the more transparent implementation of the 20% forest tax revenue sharing mechanism and from the increased capacity of their NRMC to use the funds in an effective and efficient way. In addition, 40% of the direct beneficiaries (10,000 households) will benefit from increased revenue from additional income generating activities facilitated by the project. The project will also train 30 MITADER and NGO staff working on the implementation of the improved forestry revenue sharing mechanism and at least 10 officials of other government sector funds (agriculture, mining, tourism, fisheries, infrastructure) and revenue sharing mechanisms in developing operational procedures for and implementation of Payment for Ecosystem Services mechanisms.

<sup>57</sup> NRMC represent an average of 6,000 inhabitants each, see Fernandes 2015 op. cit..

Indirectly, the project will benefit the remainder of the rural population of the 7 districts to be covered by the project, an additional 850,000 people. In addition, through mainstreaming payment for ecosystem services in 5 government sectoral funds and revenue sharing mechanisms, the project will indirectly support the majority of Mozambique's rural population of 17.2 million.

### **3.2 Project objectives, outcomes and outputs**

The objective of the proposed project is to: *“promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the improvement of existing revenue sharing mechanism that , supports sustainable use and conservation of forests and wildlife and improve local peoples' livelihoods.”*

#### **Component 1: Improved national revenue sharing mechanism**

##### **Outcome 1: National Revenue Sharing Mechanisms (RSM) improved**

###### *Description of incrementality*

Outcome 1 focuses on improving the national enabling environment for investment in and payment for the provision of ecosystem services by developing and promoting the adoption of a common set of rules by a number of sectoral funds and revenue sharing mechanisms (including forestry, agriculture, mining, fisheries, infrastructure) and by amending the current forestry and wildlife revenue sharing mechanism to reward local community engagement in forest conservation. In so doing, Outcome 1 will contribute to removing the first barrier: No. 1, *“Lack of an enabling policy and regulatory environment for Payment for Ecosystem Services.”*

Mozambique has a long history of Community-Based Natural Resources Management (CBNRM) projects that have been implemented by the government and by NGOs, usually with support from bilateral or multilateral donors. A total of 107 CBNRM projects existed until 2010, but only one of these, the Nhambita Carbon Project, has created direct incentives for local communities to engage in sustainable forest management. This is in part due to a lack of awareness among government policy makers about new tools such as Payment for Ecosystem Service (PES) mechanisms, and how these can be implemented together with poor rural communities – and especially with the women, who are responsible for many of the land use activities – to achieve both poverty reduction and forest conservation objectives.

In the baseline, the government would continue to engage in CBNRM projects and share 20% of forestry and wildlife revenue with local communities, but the transparency and equity of the application of the revenue sharing mechanism would not be improved, nor would it apply PES.<sup>58</sup> By raising awareness with government officials about PES, and by involving not just the forest administration but also other sector funds and revenue sharing mechanisms in policy dialogue on how to design and implement PES investments, the project would help the country to mainstream biodiversity conservation in sector development policies and to create long-term sustainable local sources of funding for transparent and equitable revenue sharing mechanisms integrating PES.

##### **Output 1.1: Forestry and wildlife revenue sharing mechanism (“20% Decree”) ameliorated to reward local community engagement in sustainable forest management**

Under this output, there will be 2 main activities: (i) completion of a legal study and proposal for revised text of the 20% Decree, in year 2; (ii) organization of a national seminar, in year 3, to seek consensus on revised 20% Decree text.

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<sup>58</sup> A recent report commissioned by the government (Chidiamassamba (2012 op. cit.) analyzes the lack of transparency and equity and other shortcomings of the forestry and wildlife revenue sharing mechanism as it is currently applied.

### **Activity 1.1.1 Completion of a legal study and proposal for revised text of the 20% Decree**

A legal study and proposal for revised text of the 20% Decree will be completed in year 2. A multi-stakeholder committee will be formed to ensure that the draft text is balanced and does not unduly disfavour one or other stakeholder group.

### **Activity 1.1.2 Organization of a national seminar, to seek consensus on revised 20% Decree text**

The draft text produced under Activity 1.1.1 will be tabled in a national seminar to seek consensus on a new decree that would institutionalize the Forestry RSM. This seminar, which will be held in year 3, will review lessons learned from experience with RSM worldwide as well as from the project activities in Zambézia Province and will propose a revised text for the forest revenue sharing decree.

### **Output 1.2: Common set of “rules of the game” developed for the integration of environmental performance criteria into existing sector funds and revenue sharing mechanisms, both for forestry and for other sectors**

This Output is concerned with developing and promoting the adoption of a common set of rules by a number of sector funds and revenue sharing mechanisms (including forestry, agriculture, mining, fisheries, infrastructure). All of these funds and revenue sharing mechanisms have demonstrated an interest in PES during the project preparation process, but forestry is the only one that is prepared to experiment with making its revenue sharing mechanism conditional on the environmental performance of local communities. (This will be done in seven Districts in Zambézia Province, see Outcome 3).

This output can only be completed once some experience in Zambézia Province (see Outcome 3) will have been gained, so that lessons learned from the field can be incorporated.

The project will work with those different funds and revenue sharing mechanisms that will have confirmed their interest in integrating PES in their modus operandi. If during the first two years of the project one or more of these other sector funds and revenue sharing mechanisms show a major interest in PES, a decision can be taken during the mid-term review to add one or a few field pilots to the activities planned under Outcome 3.

There are three activities associated with this output: (i) the development of communication strategies and the implementation of an awareness-raising program on integrating PES in existing revenue sharing mechanisms; (iii) the organization of cross-sectoral multi-stakeholder policy dialogue on PES.

### **Activity 1.2.1 Development of communication strategies for sectoral funds and revenue sharing mechanisms other than forestry**

The main target audience for this activity consists of the sectors other than forestry, such as agriculture, energy, fisheries, mining and tourism. The Ministry responsible for Forestry has already bought in to the idea of PES and is willing to test the modification of an existing forestry tax revenue sharing mechanism to make payments conditional on environmental performance,...

The activity concerns the development of the communication strategies the project will use to engage in multi-stakeholder policy dialogue with five sectoral funds and revenue sharing mechanisms. This activity will not adopt a “top-down, one size fits all” approach, but will instead identify the main environment and sustainable development concerns of each of the sector funds and revenue sharing mechanisms, and assess how PES can contribute to addressing these. For example in the case of the revenue sharing mechanism of the mining sector, the experience elsewhere with the involvement of local communities in post-mining restoration – which is a major challenge in Mozambique as it is in many other countries – and the use of PES to incentivize this will be reviewed and lessons learned summarized for discussion with mining sector officials.

The main government counterpart agency for the project, the Ministry of Lands, Environment and Rural Development, as well as NGOs and universities with experience in conservation agriculture and other CBNRM practices, will be closely involved in the development of the communication strategies, to ensure that they are fully on board with the dialogue with other sector funds and revenue sharing mechanisms, and to facilitate cross-sectoral collaboration on PES in the future.

**Activity 1.2.2 Conduct meetings, presentations and discussions with other sector funds and revenue sharing mechanisms interested in adopting PES rules**

This activity will be carefully sequenced. First, meetings will be held with individual sector funds and revenue sharing mechanisms interested in learning more about how PES mechanisms could be implemented in their particular sector. The content to be tabled at these meetings with the individual Sector Funds and Revenue Sharing Mechanisms will be guided by the specific communication strategies developed under Activity 1.2.1. Two meetings with sector funds and revenue sharing mechanisms (agriculture, mining, energy, fisheries, tourism,) will be held in year 1, two meetings in year 2, and one in year 3.

**Activity 1.2.3 Organize high-level RSM workshop with interested sector funds and revenue sharing mechanisms**

Subsequently, a high-level workshop will be organized with all interested sector funds, which will include high-ranking officials from the sector ministries as well as the executives and senior professional staff of the sector funds and revenue sharing mechanisms. This high-level workshop will be held in year 3 to share initial results from forestry PES implementation in Zambézia province and to review opportunities for PES in other sectors.

**Activity 1.2.4 Finalize the “rules of the game” for both for forestry and other sectors**

Based on the policy dialogues conducted with the different sector funds and revenue sharing mechanisms, and on lessons learned from experience in testing the integration of PES in the government forestry revenue sharing mechanism in Zambézia Province (see component 3), the rules of the game will be finalized and proposed for adoption by the government.

**Activity 1.2.5 Test PES with other interested sector funds and revenue sharing mechanisms**

If any of the Sector Funds and revenue sharing mechanisms other than forestry shows a major interest before the end of year two in testing PES implementation in its particular sector, a pilot effort in Zambézia Province, where the project will already be working in the field (see Component 3) could be considered. A contingency of US\$200,000 will be held in reserve for this. This contingency can be reallocated by the time of the Mid-Term Review if Sector Fund interest has not materialized by then.

**Component 2: Strengthening capacities for improved RSM**

**Outcome 2. Enhanced human and institutional capacity to oversee and implement improved RSM**

Description of incrementality

Outcome 2 will focus on building capacity for applying Payment for Ecosystem Services (PES) with providers, intermediaries and government “buyers” of ecosystem services at national, provincial and local level. In so doing, it will address Barrier No. 2, “Insufficient human and institutional capacity to implement PES.”

The 2012 assessment of the forestry and wildlife revenue sharing mechanism (20% decree) demonstrated severe capacity problems with all the actors, at all levels. In the baseline, ongoing capacity building programs funded by the government and by donors would continue to operate, but in the absence of a large-scale effort to test PES on the ground in an area of about 3 million hectares, there would not be the same opportunity for “on-the-job” capacity building activities targeting community members of NRMCs (specifically including women who have so far often been marginalized in decision making) and NGOs as well as government foresters, which will give them a much-needed reality check to otherwise often theoretical training courses.

This outcome is associated with three outputs: (i) a gender-sensitive, on-the-job PES capacity development program for forestry institutions, NGOs and community-level Natural Resource Management Committees in Zambézia Province (see also Outcome 3); (ii) enhanced institutional capacity for applying PES (vision, mandate, priorities) of the oversight bodies and managers of sectoral funds and revenue sharing mechanisms other than forestry; and (iii) enhanced institutional capacity for inter-sectoral coordination re PES, especially at Province and District levels.

**Output 2.1 Capacity development programme for Forestry institutions, NGOs and community-level Natural Resource Management Committees active in Zambézia RSM implementation (see component 3) designed and implemented.**

Under this output, there will be 2 activities: (i) completion of a RSM (including PES) implementation capacity needs assessment for government staff, NGO personnel and members of community-level Natural Resource Management Committees (NRMC) in Zambézia Province (see also Outcome 3); (ii) elaboration and execution of PES training courses for government and NGO staff and NRMC members involved in the implementation of the forestry revenue sharing mechanism, as well as an institutional capacity development program for the institutions involved.

**Activity 2.1.1 Completion of a RSM (including PES) implementation capacity needs assessment for government and NGO staff and NRMC members**

There are three distinct target audiences for this activity, each with different existing capacities and requirements: Government staff involved in the implementation of the 20% forestry revenue sharing mechanism; NGO personnel; and members of community-level Natural Resource Management Committees. Many capacity building efforts fail because they assume they know what their target audience knows and what they need to learn. In Mozambique for example, there is 20+ years of experience with Community-Based Natural Resource Management (CBNRM) that can provide many pointers for effective integration of PES in the existing forestry revenue sharing mechanism. To avoid poorly targeted capacity building activities, a PES implementation capacity needs assessment of key stakeholders will be carried out immediately at the start of the project. The results of this activity will inform all subsequent individual training and institutional capacity building activities to be implemented by the project. The assessment will follow the Knowledge-Attitude-Practice methodology used in all FAO capacity building projects.

**Activity 2.1.2 Elaboration and execution of PES training courses for government and NGO staff and NRMC members**

Based on the above-mentioned capacity needs assessment, a curriculum for PES Training for key government and NGO staff will be developed in year 1 by an international consultant working closely with the CTA.

**Activity 2.1.3 Implementation of PES training courses for government and NGO staff and NRMC members**

This activity will be executed in two stages. First, the CTA will train the government and NGO master trainers. Then, the latter will train other personnel and NRM Committee members involved in PES

implementation, including both process-oriented training (e.g. basics of equitable representation, facilitating community decision-making and organization) and substantive issues (e.g. conservation agriculture, alternative income generating activities based on sustainable forest management). The curriculum will put special emphasis on the inclusion of women, who have often been marginalized in rural development initiatives, and, more specifically, in the NRM Committees.

**Table 5. Overview of conservation agriculture activities in the project.**

Main Conservation Agriculture activities	Description	Strategies/activities
Direct seeding or planting	Direct seeding involves growing crops without mechanical seedbed preparation and with minimal soil disturbance since the harvest of the previous crop. This term is synonymous with no-till farming, zero tillage, no-tillage, direct drilling.	<ul style="list-style-type: none"> <li>• Land preparation for seeding or planting under no-tillage involves slashing or rolling the weeds, previous crop residues or cover crops; or spraying herbicides for weed control, and seeding directly through the mulch.</li> <li>• Crop residues are retained either completely or to a suitable amount to guarantee the complete soil cover,</li> <li>• Fertilizer and amendments are either broadcast on the soil surface or applied during seeding.</li> </ul>
Permanent soil cover	A permanent soil cover protects the soil against the deleterious effects of exposure to rain and sun; provides the micro and macro organisms in the soil with a constant supply of "food"; and alter the microclimate in the soil for optimal growth and development of soil organisms, including plant roots.	<ul style="list-style-type: none"> <li>• Use of appropriate/improved seeds for high yields as well as high residue production and good root development.</li> <li>• Integrated management and reduced competition with livestock or other uses e.g. through increased forage and fodder crops in the rotation.</li> <li>• Use of various cover crops, especially multi-purpose crops, like nitrogen fixing, soil-porosity-restoring, pest repellent, etc.</li> <li>• Optimization of crop rotations in spatial, timing and economic terms.</li> <li>• "Targeted" use of herbicides for controlling cover crop and weed development.</li> </ul>
Crop rotations	Crop rotation offers a diverse "diet" to the soil micro organisms while exploring different soil layers for nutrients since they root at different soil depths. Furthermore, a diversity of crops in rotation leads to a diverse soil flora and fauna, as the roots excrete different organic substances that attract different types of bacteria and fungi, which in turn, play an important role in the transformation of these substances into plant available nutrients. Crop rotation also has an important phytosanitary function as it prevents the carry over of crop-specific pests and diseases from one crop to the next via crop residues.	<ul style="list-style-type: none"> <li>• Design and implementation of crop rotations according to the various objectives: food and fodder production (grain, leaf, stalks); residue production; pest and weed control; nutrient uptake and biological subsurface mixing / cultivation.</li> <li>• Use of appropriate / improved seeds for high yields as well as high residue production of above-ground and below-ground parts, given the soil and climate conditions.</li> </ul>

**Output 2.2 Capacity development programme for managers of other sector funds and revenue sharing mechanisms to design and oversee the implementation of improved RSM designed and implemented**

Capacity development activities for managers of other (non-forestry) sector funds and revenue sharing mechanisms would focus more on strategic reasons for adopting PES and on examples of how PES has functioned in different sectors, rather than on detailed guidance for implementation, at least initially. This is in part because the non-forestry funds and revenue sharing mechanisms are not yet committed to PES implementation, although they have expressed an interest in learning more about it. The other reason is that it may not be efficient for these other funds to implement PES activities autonomously, and that they might be better off partnering with MITADER, who are likely to have better capacity for gender-sensitive PES implementation.

#### **Activity 2.2.1 Complete PES design capacity needs assessment for managers and overseers of sector funds and revenue sharing mechanisms**

As for output 2.1, a prior capacity needs assessment will be essential to determine the detailed content of further activities under this output. Again, this assessment will follow the Knowledge-Attitude-Practice methodology used in all FAO capacity building projects.

#### **Activity 2.2.2 Organize PES initiation workshop for managers and boards of sector funds and revenue sharing mechanisms held**

Based on the capacity needs assessment, a one-day workshop will be programmed and developed by an international consultant familiar with PES experience in other countries, in order to guarantee that managers and boards of Mozambican sector funds and revenue sharing mechanisms get a realistic idea of the potential relevance of integrating PES in their respective sectors. This initiation workshop will be organized for five sector funds and revenue sharing mechanisms in year 1. Apart from making the target audience more familiar with PES, it will also be used to gauge interest in PES and gather ideas about how it could be implemented in specific sectors.

#### **Activity 2.2.3. Complete studies for interested sector funds to review organizational mandates and priorities for PES**

After the completion of the PES initiation workshops, a maximum of five studies – if all sector funds are interested – to review organizational visions, mandates and priorities for PES of each of the sector funds and revenue sharing mechanisms will be carried out. Two studies will be completed in year 1, two in year 2, and one in year 3. The order of programming will depend to a large extent on the interest shown by the different sectors.

#### **Output 2.3 Capacity development program developed for cross-sectoral coordination regarding improved RSM especially at Province and District levels**

During project preparation, many stakeholders were concerned that PES development would lead to institutional proliferation (as had some previous environmental projects) and that the PES activities of the project could confuse stakeholders working on REDD+. Therefore, it was decided to combine the final PPG workshop for the PES project with the Zambézia Provincial REDD Forum, to demonstrate that the two initiatives are closely aligned, and that the aim was to mainstream PES and REDD in existing sector institutions. This is also in line with one of the global environment objectives of the project, which is to mainstream biodiversity in the various land use sectors, rather than creating new institutions. It was subsequently agreed with the government that the GEF project would support MITADER to establish a cross-sectoral coordination mechanism for PES, which would ensure strategic and operational alignment with REDD+.

#### **Activity 2.3.1 Identify other land use actors at Provincial and District level**

The project will update the identification of government and non-government land use actors at Provincial and District level carried out during project preparation, to enable targeting of all relevant actors to be made aware of the project's work on PES.

### **Activity 2.3.2 Support RSM and PES discussions in the existing Provincial and District level multi-sectoral fora**

In order to help mainstream PES into government programs, the project will focus as much as possible on supporting PES discussion in the existing Provincial and District level multi-sectoral fora, rather than creating new project-specific coordination structures.

### **Activity 2.3.3 Organize regular information exchange and coordination meetings with other land use actors at Provincial and District level**

Apart from the general PES awareness raising meetings included under activity 2.3.2, the project will also hold information exchange and coordination meetings with specific actors to facilitate project implementation. The modalities for this activity will be agreed with the provincial government at the start of project implementation.

## **Component 3: Pilot testing of improved RSM in Zambézia Province**

### **Outcome 3 Improved<sup>59</sup>, environmental performance-based version of existing government forestry tax revenue sharing mechanism operational in 7 districts of Zambézia Province**

#### *Description of incrementality*

Outcome 3 encompasses outputs and activities that will modify an existing government forestry tax revenue sharing mechanism to make payment conditional on environmental performance of local communities and that will roll out the resulting improved revenue sharing mechanism including PES in seven Districts in Zambézia Province. In so doing, it will address Barrier No. 3, “Insufficient incentives for local communities to engage in forest conservation”. This is the key practical outcome of the project to which most of its quantitative targets (hectares of deforestation and tCO<sub>2</sub>eq of Greenhouse Gas Emissions avoided) are linked. Outcome 3 also includes the elaboration of a national replication plan for the improved forestry and wildlife revenue sharing mechanism thus developed.

Mozambique currently does not have any functioning PES mechanism, but it is developing REDD+, which is a PES mechanism for avoided CO<sub>2</sub> emissions from deforestation and forest degradation. REDD+ has three phases: “readiness”, “investment” and “operational”. Mozambique is currently engaged in the “readiness” and “investment” phases, where REDD+ payments received are not directly linked to CO<sub>2</sub> emission reductions, but should soon move to the “operational phase”, where payments will be performance-related.

In the baseline, the government would continue to pursue REDD+ Readiness and Investment, and would sign a performance-based Emissions Reductions Purchase Agreement with the Carbon Fund of the Forest Carbon Partnership Facility (FCPF), while the sharing of forest and wildlife revenue would continue to be done without considering the environmental performance of local communities. While this would establish REDD+ as a de facto PES mechanism (for avoided carbon emissions from deforestation and forest degradation), it would not be fully effective, as the REDD+ incentive would be dulled by continuing payments under the 20% revenue sharing mechanism regardless of the environmental performance of the recipients. In addition, the country would not necessarily mobilize PES funding from other sectors, which are currently not involved in REDD+ implementation, nor

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<sup>59</sup> While the key modification that will integrate PES in the existing forestry revenue sharing mechanism is to make payments conditional on the environmental performance of local communities, other changes are also important, to guarantee that funds received are spent in an effective, efficient and transparent manner, to tackle the shortcomings highlighted in the government’s review of the mechanism, see Chidiamassamba 2012, op. cit.

would it benefit from the practical innovations the project hopes to test in negotiating environmental performance criteria and agreements with local communities. The latter experience in defining “proxies” for avoided forest carbon emissions may also facilitate the implementation of REDD+ initiatives, until the moment that Monitoring, Reporting and Verification data are strong enough to justify payments based solely on Certified Emissions Reductions (CER).

**Output 3.1. Guidance for improved functioning (transparency and equity) of NRMCs developed and tested in 7 districts of Zambézia Province.**

**Activity 3.1.1 Guidelines for improved functioning of NRMCs drafted based on lessons learned from CBNRM initiatives in Mozambique and elsewhere.**

The project will compile guidelines for the improved functioning of NRMCs in a number of modules (e.g. basics of community representation; facilitating community-level decision-making about forest and land use, and community-level investments; ensuring compliance of community members with agreed rules for forest and land use; accounting for community expenditures; monitoring the performance of community investments; communication results and problems and addressing community queries and complaints; law enforcement in areas under their jurisdiction and reporting of offenses), based on experience with Community-Based Natural Resource Management initiatives in Mozambique and elsewhere. Gender and youth inclusiveness will be an explicit part of each of the modules.

**Activity 3.1.2 Hold a seminar to discuss and modify draft guidelines for improved functioning of Natural Resource Management (NRM) Committees**

The draft guidelines compiled under Activity 3.1.1 will be tabled at a seminar to be held in Quelimane, the capital of Zambézia Province. All the key government and non-government project stakeholders will be invited to discuss the draft guidelines, as well as a number of well-known NGOs and academics who are experienced in CBNRM as resource persons. The comments received at the seminar will be used to modify the draft guidelines, which will subsequently be incorporated in the Letters of Agreement to be signed between FAO and the 6 field NGOs (see Activity 3.2.1 below).

**Activity 3.1.3 Reinforce NRM Committees, build elementary organizational structure and capacity development programs**

In order to complete this activity, FAO will conclude letters of agreement with 6 pre-identified NGOs that have experience with participatory community development in the province, to help improve the capacity of a total of 26 Natural Resource Management (NRM) Committees. 16 NRM Committees will be targeted in the first year, 10 in the second year, and extension work will continue throughout the project.

**Output 3.2 Guidance on performance criteria of improved RSM developed and tested in 7 districts in Zambézia Province through improved version of existing 20% forest and wildlife revenue sharing mechanism**

**Activity 3.2.1 Conclusion of letters of agreement with 6 NGOs to initiate and maintain PES activities with 26 NRM**

In order to complete the proposed activities, FAO will conclude letters of agreement with 6 pre-identified NGOs that have experience with sustainable agriculture and forest management in the province, to initiate and maintain PES extension activities with a total of 26 Natural Resource Management (NRM) Committees.<sup>60</sup> 16 NRM Committees will be targeted in the first year, 10 in the

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<sup>60</sup> These tasks will be integrated in the LOAs mentioned under activity 3.1.3 above.

second year, and extension work will continue throughout the project. The NGOs will use the guidelines developed under output 3.1 in their work with the NRM.

**Activity 3.2.2 NGO support to local communities to initiate and maintain PES activities with 26 NRM Committees.**

The NGOs will work with local communities to i) reinforce the NRM committees and build elementary organizational structure, on subjects such as a participatory and gender decision making, planning, transparency, accountability, monitoring, interest groups, associations and community forestry guards; ii) improve community awareness of forest law, policies and regulations; iii) train NRM Committee members, including women on sustainable forestry management activities, such as stimulate vegetative regrowth, Selective thinning and pruning, NTFPs and develop alternative resources etc.; iv) promote sustainable practices such as conservation agriculture, beekeeping, establishment of nurseries, controlled fires, sustainable fisheries; v) develop business plans for income generating activities related to forestry addressing women's needs and their economic empowerment such as access to markets for non-wood forest products and cash crops; and vi) promote exchange visits and experience sharing among local communities.

Some of the sustainable land use practices that serve as proxies to generate the anticipated environmental service benefits are elaborated in Table 4 and 5. Implementing the agreed practices by the NRM committees will become part of the performance criteria of the improved RSM/PES mechanism.

**Output 3.3 Lessons learned from the application of improved RSM in 7 districts shared with other districts in Zambézia Province**

**Activity 3.3.1 Conduct Seminar series in Zambézia Province to share lessons learned from PES implementation experience gained with MITADER and local authorities**

A seminar series will be held in four towns in Zambézia Province (Quelimane plus 3 others tbd) in year 4 to share lessons from PES application experience and to explain the text of the new Ministerial Decree governing the 20% revenue sharing mechanism. The location of the three seminars to be held outside Quelimane will be based in part on interest shown by the respective District Authorities.

**Activity 3.3.2 Organize exchange visits and experience sharing among local communities**

The project will organize exchange visits between NRM Committee members that have interesting experiences to share, e.g. successful implementation of income-generating activities based on sustainable forest management, of conservation agriculture, of community-level compliance mechanisms.

**Output 3.4 National replication plan for improved forest and wildlife revenue sharing mechanism that is conditional on environmental performance developed**

**Activity 3.4.1 Development of a national replication plan for modified forest and wildlife revenue sharing mechanism that is conditional on environmental performance developed**

In year 4, a draft national replication plan for the modified forestry and wildlife revenue sharing mechanism will be developed by the project team, working in close collaboration with MITADER.

**Activity 3.4.2 Organize a national seminar to discuss the draft national replication plan**

The national replication plan developed under activity 3.4.1 will be tabled and discussed in a national multi-stakeholder seminar, with a view to receiving comments and promoting its adoption by the Mozambican authorities.

### 3.3 Project assumptions

There are a number of assumptions that are essential for the project to be implemented in a timely and effective manner and generate the expected outcomes, but that the project does not control directly, as follows:

Overall assumptions:

- Interim performance criteria (proxy indicators other than directly measured CO2 emissions reductions, e.g. reduced frequency of wildfires) can be devised to measure annual performance of local communities having concluded PES agreements with MITADER;
- Improved forestry and wildlife revenue sharing mechanism will be aligned with national REDD+ MRV system under development by MITADER with FCPF and JICA assistance, once this will have become operational (to prevent confusion among local communities);
- Illegal logging is reduced so that more forestry tax revenue is available for sharing with local communities

Assumptions for component 1:

- National and provincial authorities remain supportive of environmental policy and institutional reform agenda

Assumptions for component 2:

- Staff trained by the project will be sufficiently motivated to continue to work for the government
- Government foresters will be willing to participate in RSM testing and training in the 7 Districts (despite minimal financial incentives)

Assumptions for component 3:

- Government of Mozambique willing to revise the Existing Ministerial decree to make forest (and wildlife) revenue sharing with local communities conditional on their environmental performance
- Suitable community-level incentives can be agreed with MITADER/UT-REDD;
- Provincial and district authorities willing to experiment with more transparent ways of applying the forest revenue sharing mechanism.

Section 5.3 explains how the risks inherent in some of these assumptions will be managed.

## 3.4 Lessons learned from experience with PES implementation and STAP guidance

### 3.4.1 Lessons learned

Compared to command and control approaches, PES schemes usually rely on simple and flexible structures that can be self-supporting over time. They also hold the potential to be effective and cost-efficient because they rely on rewarding positive compliance. Compared to subsidies and other hand-outs, PES systems also make the contractual obligations more direct and visible. As such, they could lead to more sustainable outcomes. While there is no standard approach to PES schemes, they are usually adapted to the very specific conditions in which they are introduced. In fact this adaptation and integration to local conditions determines their success.<sup>61</sup> The lessons learnt from successful PES

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<sup>61</sup> Engel, S., Pagiola, S. and S. Wunder 2008. Designing payments for environmental services in theory and practice: An overview of the issues. *Ecological economics* 65: 663-674.

schemes indicate the following five enabling factors: (i) applying appropriate design elements; (ii) managing transaction costs; (iii) ensuring equity in benefit distribution; (iv) diversifying revenues; (v) building local capacities. Each of these five enabling factors is briefly discussed below.

- ***Applying appropriate design elements.*** Successful examples of PES indicate that the ecosystem service provision in question is clearly defined, visible (understandable) and the service providers and users are properly identified and informed. The service providers (land user communities) have clear and secure property and/or resource use rights, and are organized (e.g., a cooperative). The charges and payments are not set arbitrarily but after systematic consultations and evaluations. The contractual arrangements are consensual, flexible, and are in sync with existing institutions. The compliance of the provision is regularly monitored and the governance systems are transparent, and adaptable over time, i.e., open to learning and improvement.<sup>62</sup>
- ***Managing transaction costs.*** The transaction costs involved in managing a PES scheme are central to its success.<sup>63</sup> The main transaction costs are related to consultation, developing agreements, contract management, and monitoring. Generally, they are high when contractual obligations are complicated or individually done as opposed to collective contracting or contracting through intermediaries. These costs will be relatively high for poor households and those with limited initial capacities and infrastructure. Creating or strengthening existing cooperative institutions and directing some of the incentives to whole community structures may help reduce some of these costs.
- ***Ensuring equity in benefit distribution.*** It is quite possible that introduction of market elements and competition could lead to further marginalization or exclusion of weaker groups, especially women, from natural resources on which they have traditionally depended. For the success and sustainability of PES schemes it is essential that they effectively integrate the concerns of existing forest dependent communities and extend benefits to them.<sup>64</sup> Concerted efforts to secure benefits to these poor people using PES platforms could in fact contribute to the broader goal of sustainable development.
- ***Diversifying revenues.*** PES schemes can also act as effective platforms to provide support for market development and revenue diversification. Such strategies to integrate related goods and niche markets (e.g. certified forest products, handicrafts, organic food) have the potential to bring additional revenues for local communities involved in PES schemes and help cover monitoring costs. Eco-tourism, bioprospecting, and value addition along the commodity value chain etc., need to be part of such revenue diversification strategies.<sup>65</sup>
- ***Building local capacities.*** Community capacity building is a key component of all PES schemes.<sup>66</sup> By supporting capacity building, they can help communities effectively participate in decision making and market development. Women are widely underrepresented in both, therefore the project will have a strong focus on this issue, promoting gender equality. There is also a vast information gap in the market between potential buyers – including not just the private sector but also governments – and suppliers and often this leads to the exploitation of the latter by intermediaries. Strengthening community capacity may reduce such vulnerabilities. Enhanced market participation, improved access to finance and insurance

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<sup>62</sup> Engel *et al* 2008, *op. cit.*

<sup>63</sup> GEF 2010. Payment for ecosystem services. Global Environmental Facility GEF, Washington, DC.

<sup>64</sup> Matta, J.R. and J. Kerr 2006. Can compensation for environmental services sustain collaborative forest management? *Journal of Sustainable Forestry* 23(2): 63-79.

<sup>65</sup> FAO 2012. *PES: Challenges and Opportunities in Africa*. Background paper presented at the African Forest & Wildlife Commission meeting in Cotonou, Benin, 16-20 January 2012.

<sup>66</sup> FAO 2012, *op. cit.*

services, and the development of appropriate local marketing structures may also be needed to help the poor effectively seize emerging market opportunities.

### **3.4.2 Specific PES guidance from STAP reflected in project design**

STAP (2010) provides guidance for the design of GEF-funded PES projects, re the three basic project modalities to choose from and the need to address four common threats to PES effectiveness.<sup>67</sup> The three different ways in which GEF supports PES are: (i) by funding direct payments of Ecosystem Services; (ii) by supporting government-financed multiple service payments for Ecosystem Services schemes. Leveraging biodiversity considerations in REDD design is particularly important under this modality; (iii) by paying for start-up costs of PES projects. Under this modality, careful consideration has to be given if such investment is the only binding constraint to the implementation of the project. For the proposed project FAO has chosen the third modality, paying for start-up costs of PES projects, as the project funds will build the policy and legal instruments and strengthen institutional capacity necessary to modify an existing government forestry revenue sharing mechanism to make payments conditional on environmental performance – but the payments themselves will come from government. Working alongside an emissions reduction program in the Zambézia Province, the leveraging of biodiversity considerations into REDD design is also prominent.

The proposed project contains a number of design elements to address the four main threats to PES effectiveness identified by STAP 2010: (i) non-compliance; (ii) poor administrative selection; (iii) spatial demand spill-overs (“leakage”); and (iv) adverse self-selection, which are described in more detail below.

The project addresses the threat of non-compliance with contractual conditions in two ways: (i) by working with local communities and project partners to develop clear “proxies” enabling the project to assess the environmental performance of local communities unequivocally; and (ii) by working closely with local communities to help them develop the institutional capacity to monitor and enforce intra-community compliance. The threat of poor administrative selection of areas or individuals that cannot supply and ecosystem service effectively, is addressed through the selection of forest-rich Districts with significant deforestation to form part of the project area (see Table 1 above).

The project addresses the third threat, of spatial demand spill-over (which is more commonly known as “leakage”, where destructive activities are simply displaced outside the project area, rather than prevented) through involving participating communities actively in alternative livelihood activities and improved resource management practices. Since most deforestation is caused by small-scale land clearing for agriculture and charcoal burning, this approach reduces the risk of leakage. The risk of leakage is further reduced by the alignment of the GEF project with the ZILMP, which will work in neighbouring communities in the same seven Districts in Zambézia Province. The fourth threat is that of adverse self-selection, where the person concerned would have supplied the Ecosystem Service anyway even without payment, as there are no viable alternatives, This risk, which STAP 2010 deems to be ubiquitous and which is rarely reflected in project design is very limited in Zambézia Province, as the small-scale forest clearing and charcoal-burning activities causing deforestation are a very common livelihood strategy there, including in the more remote areas.

### **3.5 FAO’s comparative advantage**

FAO is the lead UN agency for agriculture, forestry, natural resources management and rural development. Its mandate is to offer Member States the policy and technical ability to raise their levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy while safeguarding natural resources. The proposed

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<sup>67</sup> Payments for Environmental Services and the Global Environment Facility. A STAP advisory document. UNEP Scientific and Technical Advisory Panel. Revised edition, March 2010.

project is aligned with FAO's comparative advantage on multiple levels: i) FAO's experience in dealing with natural resources management and rural development; ii) FAO's experience with PES initiatives and with forest and land use change assessment; and (iii) FAO's existing involvement in sustainable and integrated forest management in Mozambique since 1995. Specifically on PES, FAO has organized a special session titled: "Payments for Forest Ecosystem Services: Challenges and Opportunities in Africa" at the African Forest & Wildlife Commission meeting in Benin in 2012<sup>68</sup> to promote awareness and policy development on the subject. As a follow-up to the recommendations of the Commission, FAO has also developed detailed practical guidelines on developing PES programmes in sub-Saharan Africa involving a number of organizations, governments and practitioners in the region. FAO was also instrumental in organizing an international forum on PES of tropical forests in Costa Rica in 2014<sup>69</sup> where more than 150 participants from 60 countries representing governments, regional and international development partners, civil-society organizations and the private sector attended. PES as a means to financing SFM was also discussed at the 22nd Committee on Forestry (COFO). FAO has also contributed to country-level capacity building efforts on PES in Latin America and the Asia Pacific.

FAO is already considered by GEF as the agency with comparative advantage in forestry. In terms of natural resources management and rural development, FAO has in-house technical expertise in many areas, as well as a capacity to respond to the needs of specific countries. These areas include, among others, policy and strategy development, forestry, sustainable land management and planning. FAO has been one of the main providers of technical assistance for policy making and capacity building on community-based natural resource management. FAO has also launched an Ecosystem Services and Biodiversity (ESB) Portal recently to share lessons learned from PES implementation experience with its members and partners.<sup>70</sup>

In Mozambique, FAO has been the main partner for policy and legal reform in the forestry sector since 1995 and has been one of the main providers of technical assistance for policy making and capacity building for community-based natural resources management. It has provided support to projects such as '*Support for community forestry and wildlife management*' and the EU-FAO Forest Law Enforcement, Governance and Trade initiative (FLEGT).

FAO has promoted and facilitated coordination between different governmental institutions and relevant stakeholders, all involved in rural development.

The proposed project supports the design and the implementation of the PES mechanism in forest areas. It is a cross-cutting issue including sustainable forest management, biodiversity conservation, climate change mitigation and rural development, which are FAO's fields of expertise. The project will be aligned with the FAO project GCP/MOZ/456/GER National forest monitoring and information system for a transparent truthful REDD+. The project will carry out capacity building through training courses on national forest monitoring systems with free and open source software, developed mainly in FAO and in cooperation with Google technologies, using freely available satellite images.

The project also shows a good fit with the FAO Country Program Framework within the UN Delivering as One (2012-2015). Specially, it will contribute to the implementation of one of the priorities identified - improve natural resources management and resilience to food and agricultural threats.

FAO has a fully-fledged Representation in Mozambique. The office has the operational capacity to implement this project and has a dedicated Forestry Programme Officer. In addition, technical

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<sup>68</sup> <http://www.fao.org/docrep/meeting/024/mc849e.pdf>

<sup>69</sup> <http://www.fao.org/forestry/84884/en/>

<sup>70</sup> <http://www.fao.org/ecosystem-services-biodiversity/en/>

backstopping will be provided by a multi-disciplinary project task force comprising FAO technical staff based in Rome and the sub-regional office in Harare.

### **3.6 Alignment with GEF focal areas and FAO strategic objectives**

#### **3.6.1 Alignment with GEF focal areas**

The project is consistent with the GEF-5 Focal Area Strategies for Climate Change Mitigation (CCM) and Biodiversity (BD) as well as with the strategy for the Sustainable Forest Management/REDD+ incentive mechanism.

The project is aligned with CCM-5 (Promotion of conservation and enhancement of carbon stocks through sustainable management of land use, land-use change and forestry) and entails numerous activities from demonstration to capacity development to achieve improved integrated ecosystem management. Innovative features include the broader context of different funds (agriculture, environment, energy, tourism, fisheries, mining) and use of resources for rewarding good practices and tangible results.

The project is also aligned with BD-2 (Mainstream biodiversity conservation and sustainable use into production landscapes/ seascapes and sectors) as it strengthens policy and regulatory frameworks that delegate responsibilities for production forest management to local communities and create incentives for sustainable natural resources use and ecosystem based management. It will enlarge institutional capacity and the knowledge base at national, provincial and local levels to support local user groups and ensure sustainable management of natural resources by incorporating biodiversity valuation in it.

The project will contribute to the objectives of SFM/REDD-1 (Reduce pressures on forest resources and generate sustainable flows of forest ecosystem services) by strengthening the enabling environment within the forestry sector and across sectors and by introducing good management practices promoting sustainable forest management and avoiding deforestation, thus contributing to ecological and social sustainability. It will scale-up innovative and proven participatory forest management practices that enjoy the support of local communities and will lead to improvements in multi-species forest management in the project province, Zambézia.

#### **3.6.2 Alignment with FAO Strategic Objectives**

The project is also aligned with the FAO Strategic Objective 2 (SO2) “Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner” and SO3 – “Reduce rural poverty by helping the rural poor gain access to the resources and services they need”, It also responds to the Mozambique United National Development Assistance Framework (UNDAF 2012-2015), specifically to the Outcome 3 of the economic area (sustainable and effective management of natural resources and disaster risk reduction benefit all people in Mozambique, particularly the most vulnerable), as well as to the FAO Country Programming Framework (CPF 2012-2015) Outcome 3.1 (improved natural resources management, resilience to climate change and capacity to respond to disasters) and Output 3.1.1 “Local communities with improved knowledge on land, water, forestry and wildlife resources management”.

## **SECTION 4 – INNOVATIVENESS, POTENTIAL FOR SCALING UP AND SUSTAINABILITY**

### **4.1 Innovativeness**

The proposed project is highly innovative in a number of respects:

- The project aims to integrate Payment for Ecosystem Services (PES) into the national government forestry and wildlife revenue sharing mechanism (Component 1) and apply the thus modified mechanism in seven Districts in the Zambézia Province in Mozambique (Component 3). While there are many examples of this in Latin America and the developed world, there are few PES mechanisms that are operational at scale in Africa;
- The project proposes to improve an existing government forest revenue sharing mechanism consisting of a 20% restitution of forestry licence fees to local communities by making payment conditional on environmental performance of the communities (e.g. reduction of destructive wildfires, assisting the forest administration by signalling illegal activity). In so doing, the sustainability of the mechanism is guaranteed as it depends on an existing domestic resource mobilization mechanism, rather than on donor or other external funding.
- The integration of PES into the existing forestry and wildlife revenue sharing mechanism directly addresses one of the key underlying causes of deforestation, by increasing the socioeconomic benefits local communities derive from sustainable use of forest resources, without increasing resource extraction.
- The development of a shared set of PES rules to be adopted by sectoral funds and revenue sharing mechanisms other than forestry (mining, tourism, agriculture, fisheries) is also innovative and will allow PES to be “scaled out” to other sectors dependent on ecosystem services provided by forests and other natural ecosystems (Component 1). This is a practical application of the Ecosystem-Based Approach that has been pioneered by FAO.

While the project is highly innovative, it will be implemented using proven practical approaches, including lessons learnt from PES initiatives elsewhere (see Section 1.5) and well-established FAO Capacity Development tools (including the Knowledge / Attitude / Practice methodology and proven peer-to-peer adult education approaches (Component 2).

### **4.2 Potential for scaling up and scaling out**

Given the fact that Payment for Ecosystem Services (PES) has been under implementation for more than two decades in some countries, and given the ample attention it has received in the academic literature on the economics of natural resource management, one would expect large areas to be under PES agreements by now. However, even in countries where PES has received significant political attention, such as Costa Rica, Colombia, Brazil and Mexico, the total area under PES agreements is still less than a million hectares, much lower than the area of national parks or even indigenous reserves.<sup>71</sup> Most PES schemes have not moved beyond the scale at which they were initially conceived, and neither horizontal scaling up (to include larger geographic areas) nor vertical scaling out (taking PES to different sectors) has been common.

This project has fully integrated replicability and potential for scaling-up (to other provinces) and “scaling out” PES (to other sectors) into project design. By consciously aiming to integrate PES into

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<sup>71</sup> Sven Wunder, “PES, scaling up or fading out?” presentation held at FAO Rome, January 27<sup>th</sup> 2016.

existing government sector funds and revenue sharing mechanisms, and aligning the project with the government's flagship Zambézia Integrated Landscape Management Program (ZILMP, to be co-funded by the Forest Investment Program and the government) the chances of the project's results being scaled up nationwide are quite high. Improving forest resource management and enhancing local community benefit sharing is an explicit goal of Mozambique's political leadership and the new super-Ministry of Land, Environment and Rural Development, which is also in charge of natural forests and protected areas.<sup>72</sup> Accordingly, the Government of Mozambique is likely to become a strong partner in replication and scaling-up efforts. In addition, the development of a shared set of PES rules to be adopted by sectoral funds and revenue sharing mechanisms other than forestry (mining, tourism, agriculture, fisheries) will allow PES to be "scaled out" to other sectors dependent on ecosystem services provided by forests and other natural ecosystems – though in a more "exploratory" way given that the dialogue on PES with other sector ministries has only just started.

### **4.3 Sustainability**

The sustainability of project results is of paramount importance to reduce the threats to Mozambique's highly biodiverse miombo forest ecosystems, and to improve the socio-economic condition of the people that depend on the ecosystem services these forests provide. Sustainability has many facets, including environmental, social (including gender equality) and financial, which are analyzed in sections 2.3.1 – 2.3.3 below.

Finally, the sustainability of the project results is made more likely by the project's focus on individual and institutional capacity building with all key stakeholders at all levels, from national government to local NGOs and communities. This is described in detail in section 2.5.

#### **4.3.1 Environmental sustainability**

The environmental sustainability of the project's interventions will be guaranteed by facilitating the adoption by local communities of a menu of improved farming and forest use systems that have been tested and perfected in a number of community-based natural resource management projects implemented in Mozambique at small scale over the last two decades. These include conservation agriculture, reduction of wildlife damage to crops, agroforestry, integrated pest management, fire prevention and control and sustainable forest management among others.

#### **4.3.2 Social sustainability**

Social sustainability is also paramount. The current forestry situation, where illegal private operators make large profits at the expense of the miombo forests and the communities that depend on them, and where the benefits that communities are legally entitled to from formal forest harvesting regimes are often either late in arriving or inefficiently used (see section 1) is clearly unsustainable, socially speaking. MITADER has now embarked on a major policy and institutional reform initiative to control illegal logging, with support from high-level decision makers and a number of donors. By improving the transparency of the existing forest revenue sharing mechanism and the functioning of local NRM Committees, the project will complement these reforms, through improving the communities' use of the funds received and ensuring that benefits are shared equitably.

Stakeholder engagement is a key element to ensure social sustainability of projects. For this project extensive stakeholder consultations were undertaken at both national and local level during the project preparation phase. The project preparation process was successfully launched during a national workshop held on February 17<sup>th</sup>, 2015 in Maputo. The workshop was attended by around 40

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<sup>72</sup> Until early 2015, the responsibility for forests was with the Ministry of Agriculture, for protected areas with Tourism and for Environment with a Coordinating Ministry without a strong field presence.

representatives from government agencies, civil society, bilateral donors (including JICA) and multilateral donors including the World Bank and UNDP. As a result of discussions held at the workshop, some minor changes in project design were agreed, for example keeping the option open to pilot the PES mechanism not just in miombo woodlands but also in mangrove and montane forest ecosystems in Zambézia Province, if interested partners could be identified. The constructive nature of the debate illustrated the good relationships that FAO enjoys with government and non-government stakeholders in Mozambique, and the broad support for FAO's role in executing this GEF-funded PES project. Follow-up meetings confirmed the interest of organizations such as the International Institute for Environment and Development (IIED), the World Bank and the University Eduardo Mondlane and a number of local civil society organizations to collaborate with FAO and the government in the preparation and implementation of the project.

As part of the implementation of the PPG, FAO carried out three field missions to Zambézia Province, one in April and two in July 2015. During the first mission, Pebane, Maganja da Costa, Gilé, Alto Molócue and Ilé Districts were visited to explain the objective of the project and gather stakeholder ideas for project design. The mission met with the provincial Governor, with District administrators, an Environment and Development NGO network (RADEZA), the Mozambican timber producers' association as well as members of Natural Resource Management (NRM) Committees, among others. Stakeholders advised FAO to work with existing NRM Committees to improve their management and organizational capacities; to concentrate on miombo forests, since this is where the forestry revenue shared with local communities (from forest concessions and simple licences) derived from; and to explore whether the incipient mining revenue sharing mechanism could also be used for PES.

In July 2015, the FAO preparation team visited the Districts of Maganja da Costa and Mocubela to discuss the functioning of the existing forestry and wildlife revenue sharing mechanism in more detail with affected stakeholders (provincial and district authorities, local communities) and to identify potential additional sources of PES funding. The team met with district and municipality administrators, technicians from the district extension services, a community forestry association (ACODEMAZA), members of the Natural Resource Management (NRM) Committees and Community Councils, who provided valuable comments on the implementation of the forestry and wildlife revenue sharing mechanism and inputs for the design of the project. Among other comments, local stakeholders emphasized the need to improve the capacity of the NRM committees, to improve the transparency of how the 20% forest tax revenue share was calculated and disbursed, to reduce illegal logging so more revenue could be shared with communities and to ensure that the proposed GEF project would complement existing initiatives, thereby creating synergies and avoiding duplication.

A third mission was undertaken in July 2015 by an international consultant hired with PPG funding. Her mission featured a meeting with the various sector funds and revenue sharing mechanisms, to find out more about what they were doing and to gauge their interest in investing in ecosystem management and restoration, and in payment for ecosystem services. The representatives of the following funds attended: agriculture (FDA); energy (FUNAE), fisheries (IDPPE); mining (DNM-MIREME); and tourism (INATUR). Issues discussed included options for investment in sustainable land use and fisheries management and performance-based payments. The representatives from these sectors confirmed their interest in PES and ventured that earmarking money from their respective funds for PES could be done without any changes in the legal instruments governing their establishment.

The international consultant also held discussions in Zambézia Province at both provincial and district level to gauge interest in PES. She met with the Provincial Directorates of Agriculture, and of Mining and Energy. They both confirmed their interest in PES, and the Mining Directorate explained that private mining and energy companies are required to undertake activities supporting local development under their corporate social responsibility (CSR) obligations – which could also be a source of funds for PES. The monitoring of the performance of CSR investments is poor, however,

and the performance indicators and monitoring system that the project will help set up could help to improve this situation. In the Districts of Maganja da Costa and Mocubela, meetings with the District Administrators and Permanent Secretaries – and with the District Services of Economic Activities and of Planning and Infrastructure in Mocubela – suggested a good understanding of the environmental challenges posed by natural resource use, such as the impact of the use of fire for agricultural land conversion on forests and the impact of mining activities on water and fisheries resources. There was a strong acknowledgement at District level that environmental challenges need to be addressed in a concerted and gender-sensitive manner, including their integration in District Development Plans and the Annual Economic and Social Plans (which is known under the acronym that this document uses for Payment for Ecosystem Services, PES) as well as the budgets for their implementation, and that Payment for Ecosystem Services could help implement such a concerted approach to natural resource management.

A final multi-stakeholder consultation workshop was held in Quelimane, Zambézia Province, on August 7<sup>th</sup> 2015, to share the conclusions of the project preparation phase with local stakeholders. The workshop was hosted jointly with MITADER, and was combined with MITADER's provincial REDD+ Forum. This allowed MITADER and FAO jointly to clarify how the planned PES and REDD+ activities would be aligned, and to explain that both would be implemented through existing institutions at the District level, and that no new institutions would be created. The latter issue was a matter of concern to many participants, who complained about the institutional proliferation that had been caused by earlier projects.

The final workshop was well attended by a diverse audience of about 50 people, including district administrators, government foresters from both national and provincial level, environment and development NGOs and small-scale private timber operators. The main recommendations from this workshop for priority activities under the PES project were:

- Invest in creation, or revitalization, of community-level Natural Resource Management Committees (CGRN in Portuguese) in the project area;
- Integrate PES in the government forestry and wildlife revenue sharing mechanism in such a way that it helps to reduce uncontrolled forest fires, which are a major source of greenhouse gas emissions in the Province;
- Involve timber operators in communication about and coordination of the spending of the 20% tax restitution received by the CGRN;
- Help revive the mechanism included in the forest law for local communities signalling illegal logging activity to receive a 10% share of any fines imposed, and ensure that payments are made promptly.

#### Gender considerations

A key element of social sustainability is gender equality. The Project recognizes that women are vital stakeholders in managing and using forest resources, through their subsistence and economic activities and they will need to be consulted regularly under the project. In forest communities, households' income relies mainly on shifting cultivation, firewood collection, fibre and other products for construction and medicinal products, even more in female-headed households. At the same time, women in the project area are often marginalized in decision-making by Natural Resource Management Committees and other local institutions, and destructive practices such as uncontrolled wildfires for hunting and illegal logging destroy forest products and services that women depend on. The proposed project is consistent with the GEF Policy on Gender Mainstreaming (PL/SD/02. May 1,

2012) and is fully aligned with the gender policy of FAO<sup>73</sup> and will contribute to the following objectives:

- Women participate equally with men as decision-makers in rural institutions and in shaping laws, policies and programs
- Women and men have equal access to and control over decent employment and income, land and other productive resources
- Women and men have equal access to goods and services for agricultural development and to markets

For FAO, gender equality is equal participation of women and men in decision-making, equal ability to exercise their human rights, equal access to and control over resources and the benefits of development, and equal opportunities in employment and in all other aspects of their livelihoods. Environmentally destructive practices used currently often benefit men at the expense of women. For example, the use of uncontrolled forest fires to facilitate hunting by men inadvertently destroys many non-timber forest products used by women for income-generating activities. Women are currently marginalized in the decision-making processes of the Natural Resource Management (NRM) Committees that oversee the spending of the funds from the 20% tax sharing mechanism.

The project will promote participatory approaches and gender equality, reduce destructive forest use and ensure that women are equally represented in NRM Committees, so that they can be fully involved in decisions on how the payments received under the revenue sharing mechanism (which will be conditional on environmental performance) are to be used.

The project will proactively seek to ensure meaningful participation of women, taking into account the specific constraints and barriers they may face.<sup>74</sup> For instance, training sessions targeted at women will be designed and organized at times and in locations that women can easily access and using tools and methods that are mindful of different literacy levels and language barriers. Furthermore, awareness raising and gender sensitization activities will be organized at community level to facilitate equal participation of different categories of women and men (e.g. by age, ethnicity, marital status etc).

The strengthening of the NRM Committees – and the establishment of new ones as necessary – will be based on a participatory approach with a strong emphasis on women’s involvement. Special attention will be given to female-headed households that are often the poorest and the most marginalized. Training content will include not just good practices in forest management and compliance with PES performance conditions, but also awareness development on the role of women. The Project will actively engage women in activities to support the use and the management of forest and the NGOs to be contracted by FAO to implement field activities will equally support men and women, for example with information on market outlets and support for value chain development.

To this end, the project will provide training and technical support to the national partners on the use of the Socio-Economic and Gender Analysis Approach (SEAGA) enabling them to:

- Capture the diverse views, needs/priorities, experiences and visions among members of the community
- Ensure participation of men and women and equitable distribution of benefits
- Support decision making that reflects the views, needs and priorities of men, women and vulnerable groups

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<sup>73</sup> FAO Policy on Gender Equality, 2013: <http://www.fao.org/docrep/017/i3205e/i3205e.pdf>

<sup>74</sup> See Appendix 5 for a detailed treatment of how gender will be taken into account in each of the activities planned under the project.

- Understand institutional context and make plans for how institutions can support community members, especially disadvantaged groups.

The terms of reference to be included in the letters of agreement that FAO will conclude with the NGOs in the field will take into consideration three SEAGA’s guiding principles: i) gender roles and relations are of key importance, ii) disadvantaged persons and groups are a priority in development initiatives and; iii) participation is essential for sustainable development.

Each component of the project will ensure that gender equality is an integral part of the implementation and monitoring and evaluation stages of the project, through:

- Gender Analysis
- Gender Mainstreaming (taking into consideration girls/women’s and boys/men’s rights, responsibilities and opportunities in all activities and better identify the needs of different categories of the population)
- Gender Indicators

### 4.3.3 Financial sustainability

The project proposes to reform an existing government forestry and wildlife revenue sharing mechanism consisting of a 20% restitution of licence fees to local communities by making payment conditional on the environmental performance of the communities (e.g. reduction of destructive wildfires, collaboration with the administration in signalling illegal activity). In so doing, the sustainability of the mechanism is guaranteed as it depends on an existing domestic resource mobilization mechanism, rather than on donor or other external funding.

The project will work with a number of other sectoral funds and government revenue sharing mechanisms (including mining, tourism) that have shown an interest in PES to develop modus operandi for investing in the provision of ecosystem services by local communities. Again, because the effort depends on domestic resources, sustainability is more likely to occur.

### 4.4 Capacity development

Tracking capacity development results is particularly challenging because of the intrinsic nature of an ongoing and non-linear change process, involving ‘softer’ aspects (learning, behaviour change, process, engagement, political will) that are more difficult to capture compared to technical interventions or hardware investments.

In the past, the completion of outputs such as training courses, policy documents, or signature of institutional collaboration agreements amongst institutions were considered sufficient capacity development ‘results’. But despite the challenges inherent in measuring capacity development results, international development discourse (e.g. Declarations of Paris, Accra and Busan) and resource partners increasingly want to know to what extent those *outputs are used and taken up* by national actors to produce longer-term results (i.e. sustainable outcomes).

**Table 6. Capacity Development dimensions**

CD dimension	Output level	Outcome level
Individual	Did producers <b>learn</b> new knowledge or skills through training?	Are trained producers <b>applying</b> the new knowledge/skills, or have they adopted new behaviours?
Organizational	Do organizations have improved <b>methods</b> in place?	Are organizations <b>delivering better services</b> ?

<b>CD dimension</b>	<b>Output level</b>	<b>Outcome level</b>
Enabling environment	Are new or <b>improved policies</b> and framework in place?	Do policies and institutional frameworks support the <b>implementation and sustainability</b> of changes?

This renewed understanding requires a focus beyond tracking outputs (e.g. number of training sessions organized; number of policies or strategies produced etc.) to also capture outcome level results (e.g. utilization of the skills acquired in the training; improved organizational performance; use of improved methods for policy and strategy development to become standard practice adopted by policy makers in the future). The Monitoring and Evaluation Plan (see section 4.2) to be developed during project inception will include tailor-made indicators tackling the outcome level of the individual, organizational and enabling environment aspects of capacity development, to ensure that the project results are sustainable.

## **SECTION 5 – INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS**

### **5.1 Institutional arrangements**

#### **5.1.1 Roles and responsibilities of institutions**

##### **FAO**

In accordance with its comparative advantage as illustrated in section 1, the Food and Agriculture Organization of the United Nations (FAO) will be the GEF Agency for the project. FAO will:

- Manage and disburse GEF funds in accordance with the rules and procedures of FAO, and in accordance with the agreement between FAO and the GEF Trustee.
- Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- Provide technical guidance to ensure that appropriate technical quality is applied to all activities;
- Carry out at least one supervision mission per year;
- Report to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, on project progress, and
- Provide financial reports to the GEF Trustee.

Within FAO, a multidisciplinary Project Task Force (PTF) will be established by the BH which is mandated to ensure that the project is implemented in a coherent and consistent manner and complies with the organization's goals and policies, as well as with the provision of adequate levels of technical, operational and administrative support throughout the project cycle. The PTF comprises at least of the Budget Holder (BH), the Lead Technical Officer (LTO) and the TCI GEF Funding Liaison Officer (FLO). The role of the BH is described in detail in section 5.4.2 Financial Management and Reporting, below.

##### **MITADER**

As the Project Executing Partner and Lead Coordination Agency, MITADER will have the following roles and responsibilities with regards to the project:

- Chair the Project Steering Committee (PSC) and house the Project Management Unit (PMU);
- Ensure coordination with other relevant initiatives and cooperation with other government line agencies and other actors, both in Zambézia Province and at national level;
- Through its Provincial Forest and Wildlife Service in Zambézia Province, coordinate implementation of the field activities of the project by the relevant District government agencies (SDAE and SDPI), NGOs and community-based natural resource management (NRM) committees involved;
- Be responsible for delivering the project outputs in a timely and cost-effective manner.

All these functions are described in more detail in section 5.2 below.

## Other Ministries

The main Ministries other than MITADER that will be involved in the project are those whose sector funds or revenue sharing mechanisms have shown a preliminary interest in PES, and who will be involved in awareness-raising activities under Component 1. This category includes the following Ministries: the **Ministry of Mineral Resources and Energy**; the **Ministry of the Sea, Inland waters and Fisheries and the Ministry of Agriculture and Food Security (MASA)**. The timely allocation of the 20% decree, and of any other form of government payment, depends, in part, on processes within the **Ministry of Economy and Finance**. The project will involve the Ministry of Economy and Finance in the design of PES schemes for sectors other than forestry once any of these sectors show an interest in moving forward with establishing PES rules and pilot efforts.

In this project the National Directorate for Agricultural Extension (DNEA), an agency of the **Ministry of Agriculture and Food Security (MASA)** together with FAO staff in the Maputo office will be responsible for the extension work and disseminating practices, technologies and knowledge and transmission of sustainable agricultural practices to local providers (NGOs), for example conservation agriculture, alternative income-generating activities and securing community land rights. Most NGOs identified in the project area have focused on community mobilization and organization, and are less aware of newer practices such as conservation agriculture.

## NGOs and community-based organizations

At the local level the involvement of the **Non-governmental organization (NGOs)** will be essential for the success of the programme, facilitating the dialogue for a mutual understanding. In that sense and in close collaboration with the respective provincial and district level government institutions, these NGOs will be the recipients of most of the targeted training and capacity development activities supported by the project, empowering them to implement sustainable forest management (SFM) practices effectively and efficiently and thereby paving the way for broader adoption and mainstreaming of these practices by local communities. They will be trained on the implementation of PES in order to continue to expand and spread environmental good practices.

Through their local knowledge and ongoing work with the local communities, they will be able to adapt the project implementation to the current situation.

**Natural Resource Management (NRM) committees**, who receive funds under the existing government forest tax revenue sharing mechanism, will implement activities in the field to reduce pressure on forest resources, such as fire control, conservation agriculture, and sustainable harvesting of forest products. In addition, the revenue sharing mechanism should constitute a stimulus for local communities' involvement in law enforcement in areas under their jurisdiction and reporting of offenses. They NRM committees will be supported by NGOs who will be contracted under the project to carry out the following tasks:

- Support project team on the field
- Assess NRM Committee functioning in the project area and help communities to improve the effectiveness of their NRM Committees as needed (e.g. fair representation of all stakeholder groups including women and youth, transparency of decision-making and financial operations), with emphasis to the capacity building, sustainable agriculture and forest management, to initiate and maintain PES capacity building activities
- Facilitate the elaboration of community-level rules for forest use that, in case of compliance, could be rewarded by payments under the modified government forestry and wildlife revenue sharing mechanism
- Articulate with the Provincial Services of Forestry and Wildlife - SPFFB of DPTADER and report on illegal activities.

- Help communities to develop ways of enforcing their forest use rules, both within the community and, in collaboration with District-level authorities, more generally

The following NGOs have been pre-identified for the conclusion of LoAs for project implementation: RADEZA (*Rede de Organizações para Ambiente e Desenvolvimento Sustentável da Zambézia*), FONGZA (*Forum das Organizações Não-Governamentais da Zambézia*), ACODEMAZA (Associação Comunitária de Defesa e Saneamento do Meio Ambiente da Zambézia), COSV (Coordinamento delle Organizzazioni per il Servizio Volontario) and ORAM (Rural Association for Mutual Aid). In close collaboration with the respective provincial and district level government institutions, these NGOs will be the recipients of most of the targeted training and capacity development activities supported by the project, empowering them to implement sustainable forest management (SFM) practices effectively and efficiently and thereby paving the way for broader adoption and mainstreaming of these practices by local communities.

International organizations.

The **International Institute for Environment and Development (IIED)** and COSV (Coordinamento delle Organizzazioni per il Servizio Volontario - a non-profit voluntary organization involved in international cooperation) are the international organizations already working in the area and promoting sustainable forest management and conservation activities. Synergies and complementarities with these initiatives will be ensured by involving these organizations in training sessions and policy dialogue. IIED was also involved in the preparation of this project, given its T-REDD+ project, which is under implementation in the Beira Corridor, and its prior experience with PES in other countries.

Private sector

The **private sector** has also shown an interest in being involved in the project's implementation. Potential PES partnerships will be explored with:

- Cashew nut traders
- Cashew nuts are being promoted for income generation in the province and in consociation with agricultural crops will promote more sustainable agricultural practices. Cashew nut traders will ensure markets for the local communities and create alternative source of income for them
- Forest and wildlife operators pay taxes, out of which 20% are shared with local communities in the area by the government. The involvement of forest operators in the mechanism for channelling the revenue has been recommended during the consultation process for this project.

### 5.1.2 Coordination with other initiatives

Coordination will be ensured by the FAO office in Mozambique in close collaboration with MITADER, which will also ensure coordination with related national initiatives. Day-to-day coordination of activities will be supported by the project staff and management unit.

The project will be implemented in close collaboration with a number of partner projects and a range of ongoing initiatives in Mozambique related to forest management and climate change mitigation. Coordination across the projects will be important. A regular coordination and consultation with the ZILMP will be incorporated into the project's knowledge exchange mechanisms to maximize synergies and avoid duplication. The collaboration with other projects will take the form of co-financing agreements or sharing of best practices and lessons learned, or both. These partner projects fall into two categories: (i) baseline projects in Mozambique (discussed earlier), which are the related

projects and programmes that the present project will directly collaborate with through co-financing arrangements; and (ii) related projects with which coordination will focus on exchanging lessons and sharing inputs and technical expertise. This second category especially concerns other PES projects – funded by GEF or other donors – in Africa. In particular, FAO will ensure coordination with two other GEF projects ongoing in Mozambique, related to biodiversity conservation and development.

The National REDD+ Strategy preparation process is underway in Mozambique and will serve as a reference framework. JICA is currently assisting the government in establishing a sustainable forest resource information platform, and UT-REDD+ has received a follow-up grant from the Forest Carbon Partnership Facility to establish the REDD+ MRV (Monitoring, Reporting and Verification) system. This platform will be used to monitor the carbon benefits of the project.

MITADER will ensure coordination with its projects and activities that are ongoing in the Zambézia Province: (i) Zambézia Integrated Landscape Management Program (ZILMP, co-funded by the Forest Investment Program and the government, under preparation); (ii) Mozambique Conservation Areas for Biodiversity and Development Project (MOZBIO program), which is currently funding SFM activities for local income generation around a number of Mozambican Protected Areas including the Gilé Reserve; and (iii) the REDD+ Readiness Preparation Grant. Specifically, the contribution to this project will be through the funding of income-generating sustainable forest management activities for local communities in the seven Districts in Zambézia Province as well as establishing and training of community based natural resource management committees that are not covered under the GEF project.

In order to reduce the deforestation and forest degradation that result from the widespread and inefficient use of firewood and charcoal, the project will build linkages with the National Biomass Energy Strategy, which aims to modernize the charcoal supply chain, and promote access to modern biomass technology. Synergies will also be ensured with GEF Projects -“*Towards sustainable energy for all in Mozambique: promoting market-based dissemination of integrated renewable energy systems for productive activities in rural areas*”, under formulation and to be implemented by UNIDO, which will tackle interventions for demonstration projects on integrated renewable energy system in selected productive sectors, such forest plantations, agriculture and livestock’s waste.

Synergies and complementarities with FAO’s agricultural extension projects implemented in the same area such as i) the GEF Project implemented by FAO “*Accelerate Progress towards MDG1c in Mozambique*”, through advisory services to smallholder farmers from different sources. Equally, cooperation will be established with the EU-FLEGT FAO project that addresses the drivers of illegal timber trade in Mozambique.

## **5.2 Implementation arrangements**

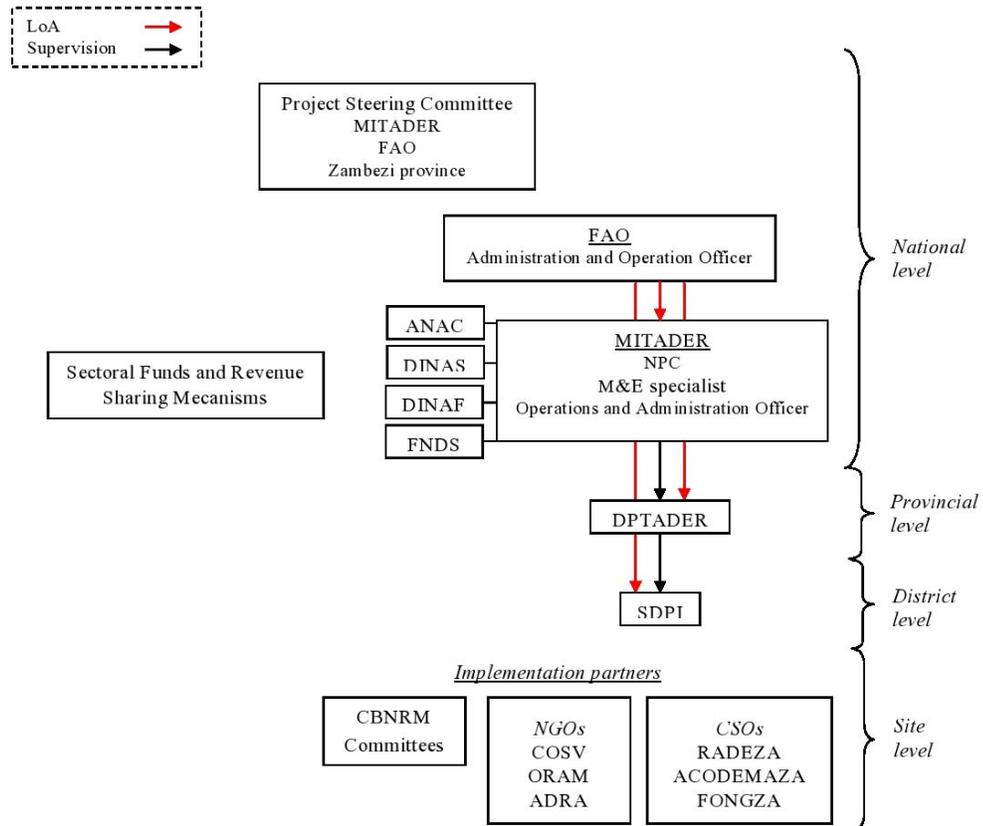
A Project Steering Committee (PSC) will be established and chaired by MITADER. It will be comprised of representatives from FAO, MITADER and representatives from Zambézia province. The Chief Technical Advisor (in the first three years of the project) and then the National Project Coordinator (in the last two years of the project) will be the Secretary to the PSC. The PSC will meet at least twice a year to ensure:

- Oversight and assurance of technical quality of outputs;
- Close linkages between the project and other ongoing projects and programmes relevant to the project;
- Timely availability and effectiveness of co-financing support;
- Sustainability of key project outcomes, including up-scaling and replication;
- Effective coordination of government partner work under this project; and

- Approval of the six-monthly Project Progress and Financial Reports, the Annual Work Plan and Budget.

The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will (i) technically oversee activities in their sector, (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project and (iii) facilitate coordination and links between the project activities and the work plan of their agency.

**Figure 4: Organigram**



A Project Management Unit (PMU) will be established within MITADER. The PMU will work closely with the provincial, district and local governance structures in their operations. The PMU will be hosted by MITADER and will include:

- a full time international Chief Technical Advisor (CTA) with expertise in PES and development of institutional capacity for the five years of project implementation
- a field manager supporting the MITADER staff in Zambézia Province
- a full time monitoring and evaluation expert (who will also be the communications officer) for the full duration of the project
- a full time operation and administration officer
- two drivers (one supporting the PMU and one supporting the field work in Zambézia Province)

The ToRs of PMU staff are provided in Appendix 5. The PMU staff will be recruited by the project and will report (through the CTA) to the BH. The PMU will carry out its functions in line with FAO rules and regulations.

Some key functions of the PMU are:

- Technically identify, plan, design and support all project activities
- Liaise with government agencies and regularly advocate on behalf of the project
- Prepare the Annual Work Plan and Budget (AWP/B) and monitoring plan
- Be responsible for day-to-day implementation of the project in line with the AWP
- Ensure a results-based approach to project implementation, including maintaining a focus on project outcomes and impacts as defined by the results framework indicators
- Coordinate project interventions with other ongoing activities
- Monitor project progress
- Be responsible for the elaboration of FAO Project Progress Reports (PPR) and the annual Project Implementation Review (PIR)
- Facilitate and support the mid-term evaluation/review and final evaluation of the project.

The PMU personnel will be supported by national and international consultants, who will be recruited during project implementation as needed. The functions and ToR of required consultants are also presented in Appendix 5.

## **5.3 Risk management**

### **5.3.1 Risks to the achievement of the project objective.**

A thorough assessment of potential risks to the achievement of the project's objectives has been conducted. The overall risk can be classified as medium and manageable. The fact that forestry and environment have recently been brought under the same ministry (MITADER), and that this ministry has embarked on an ambitious forest policy and institutional reform effort supported by the World Bank and other donors, with a strong focus on Reduced Emissions from Deforestation and Degradation (REDD+) helps to mitigate a considerable part of the existing risks.

The following table summarizes the main identified risks, rates their importance (low, medium or high) and highlights planned mitigation measures included in the project design. A more detailed description of the key risks and mitigation measures is given in sections 5,3,2-5.3.4

**Table 7. Risks to achieving project objective**

<b>Risk</b>	<b>Rating</b>	<b>Mitigation measures</b>
Insufficient coordination and collaboration among government institutions and community-based natural resources management committees may make it hard to implement the PES mechanism.	Medium	The project mitigates this risk by (i) including representatives from all stakeholders in the Project Steering Committee; (ii) involving the national and provincial authorities actively in the preparation and implementation of the project, with clear roles and responsibilities for all; (iii) training government and NGO staff together in dedicated PES training courses to create a joint sense of purpose; (iv) increasing transparency in the application of the forest and wildlife revenue sharing mechanism, to increase trust and facilitate coordination between community-based institutions and government agencies.
Weak capacity of institutions at local government and community level may make it hard to change the status quo of illegal forest use. This would reduce the effectiveness of a tool such as payment for ecosystem services (PES), even if the project were to achieve its objective of integrating PES into the existing national forestry and wildlife revenue sharing mechanism.	Medium	The project has a strong focus on institutional capacity building, not just through training government staff and community members but also through clarifying the “rules of the game” for PES and the resulting roles and responsibilities of government institutions and community-based organizations. The capacity needs assessments that the project will carry out at the start of the project for each of the key institutions involved in project implementation from national to community level increases the likelihood that functional capacities will be developed and maintained beyond the project duration.  The fact that forestry and environment have recently been brought under the same ministry (MITADER), and that this ministry has embarked on an ambitious forest policy and institutional reform effort supported by the World Bank and other donors, with a strong focus on Reduced Emissions from Deforestation and Degradation (REDD+) also helps to mitigate this risk, both by creating incentives for local communities to engage in better forest resource management and by enhancing law enforcement.
Potential climate change impacts, such as increased fire frequency due to higher temperatures and less reliable rainfall, may prevent the project from having the expected positive environmental outcomes, even if the project is successful in encouraging local communities to improve forest management.	Medium	The improved forest management practices that the project will encourage local communities to adopt (such as fire control, conservation agriculture, sustainable wood harvesting) will considerably reduce the exposure and susceptibility of the miombo forest ecosystem to catastrophic fire. The introduction of such improved practices over a large contiguous area, working alongside similar efforts funded by other donors, will further mitigate the risks that climate change is likely to cause.
The risk of “leakage” – simply displacing illegal and destructive forest use activities to other areas without a net positive environmental benefit – is inherent in any forest conservation intervention implemented at sub-national level.	Low-Medium	The project actively mitigates the risk of “leakage” by: (i) helping local actors to engage in sustainable use of natural resources rather than in destructive activities by rewarding the former and discouraging the latter – thus reducing the risk of a simple displacement of their former activities to a new area; (ii) promoting the introduction of improved forest use and management practices over a large contiguous area, working alongside similar efforts funded by other donors, thus decreasing the spatial probability of important “leakage” events. Further risk mitigation measures are likely to be devised under the Emissions Reduction Purchase

Risk	Rating	Mitigation measures
		Agreement the government intends to conclude with the Carbon Fund of the Forest Carbon Partnership Facility.
Deterioration of the security situation (political instability) in the Province that may disrupt project activities	Medium	Armed conflicts and unrest are localized. Project activities will take into account security issues and will follow the minimum operation security standard set by UNDSS.

### *Institutional coordination and capacity risks*

**Institutional coordination risks** are primarily due to the likelihood of insufficient coordination and cooperation between stakeholders, especially across different administrative levels (national to provincial and provincial to district) and between local government agencies and community-based natural resources management institutions. These institutional coordination risks are aggravated by weak institutional capacity (see below) at all levels.

The project mitigates the risk of a lack of institutional coordination in a number of different ways. First, including representatives from all stakeholders, including from local government, in the national-level Project Steering Committee will ensure that provincial-level authorities are more familiar with the project’s strategic thrust, and more able to provide feedback about project implementation challenges at field level. Second, national and provincial authorities have been actively involved in the preparation of the project, and this will continue during the implementation of the project. The definition of clear roles and responsibilities for all institutions involved in the project will further help to reduce coordination problems. Third, the provision of Payment for Environmental Services training to mixed groups of government and NGO staff will increase mutual understanding about the challenges each of the stakeholders are facing and help to create a joint sense of purpose. And finally, increasing transparency in the application of the forest and wildlife revenue sharing mechanism, as recommended by the recent government review of the mechanism (Chidiamassamba 2012) will help to increase trust and facilitate coordination between community-based natural resources management institutions and government agencies.

Another key risk is the fact that **weak institutional capacity**, especially at local government and community level, may make it hard to change the status quo of illegal forest use. This would reduce the effectiveness of a tool such as payment for ecosystem services (PES), even if the project were to achieve its objective of integrating PES into the existing national forestry and wildlife revenue sharing mechanism.

One specific weakness in current forest policy implementation merits special attention in this respect. The Forest and Wildlife regulation establishes that 50% of the fines collected from legal offenders are to be given to forest patrol agents and communities that participate in law enforcement activities or report offenders. From the period of 2007 to 2014 about USD 10.5 million has been collected in fines as detailed below. But the mechanism for sharing of 50% of the fines with forest patrol agents and communities has not been approved yet, and its implementation is problematic, often occurring late. While the dysfunction of the fine sharing scheme does not fall under the project’s activities to improve the 20% revenue sharing mechanism including integration of a PES element, it does reduce local communities’ incentives for helping the forest authorities to conserve forests by preventing illegal activity, so it should be addressed by ongoing government efforts to improve forest governance.

To mitigate this risk, the project has a strong focus on institutional capacity building and on dialogue with the government. This includes individual capacity building activities such as training government and NGO staff, who will in turn help train community members but also measures to help institutions become more effective. The latter will be done through clarifying (and simplifying where possible) the “rules of the game” for the improved forest revenue sharing mechanism (including PES) and the

resulting roles and responsibilities of government institutions and community-based organizations. The capacity needs assessment, a well-established tool in FAO's capacity development toolkit, that the project will carry out at the start of the project for each of the key institutions involved in project implementation from national to community level increases the likelihood that functional capacities will be developed at institutional and individual level – and maintained beyond the project duration.

The 20% revenue sharing mechanism itself should constitute a stimulus for local communities' involvement in law enforcement in areas under their jurisdiction, if they become aware that illegal logging reduces the available funds. Therefore, focus on institutional capacity building related to law enforcement and reporting of offenses have been reinforced in the guidance for improved functioning (transparency and equity) of NRMCS output.

The fact that forestry and environment have recently been brought under the same ministry (MITADER), and that this ministry has embarked on an ambitious forest policy and institutional reform effort supported by the World Bank and other donors, with a strong focus on Reduced Emissions from Deforestation and Degradation (REDD+), also helps to mitigate this risk, both by creating incentives for local communities to engage in better forest resource management and by investing in improved means for forest and wildlife law enforcement.

### *Risks due to climate change impacts on miombo forest ecosystems*

Potential **climate change impacts, such as increased fire frequency due to higher temperatures and less reliable rainfall**, may prevent the project from having the expected positive environmental outcomes, even it were successful in encouraging local communities to improve their forest management practices. Apart from causing further forest loss and degradation, this would also make the successful integration of PES into the forestry and wildlife revenue sharing mechanism much harder, as community performance would have to be judged against a “moving baseline” and it would be hard to design a robust performance metric.

The risk of climate change, which affects a broad range of development and environmental projects of GEF and other agencies, can only be partially mitigated. Nevertheless, the improved forest management practices that the project will encourage local communities to adopt (such as fire control, conservation agriculture, sustainable wood harvesting) will considerably reduce the exposure and susceptibility of the miombo forest ecosystem to catastrophic fires. This in turn would help to maintain miombo forest biodiversity and the human livelihoods dependent upon it, thus further reinforcing a “virtuous circle”. Additional sustainable practices that could be rewarded under an improved revenue sharing mechanism incorporating PES, some of which are likely to be used already by some communities, will be identified as project implementation advances and interaction with community-level natural resource management institutions in the field intensifies.

The introduction of such improved practices over a large contiguous area, working alongside similar efforts funded by other donors working in Zambézia Province, will further mitigate the risks that climate change is likely to cause, as the “edge” of the joined-up project area becomes smaller in relation to its “core”.

### *Leakage risk*

The **risk of “leakage”** – a term that gained credence in the REDD+ debate and indicates the displacement of destructive (and often illegal) forest use activities from the project area to other areas without a net positive environmental benefit at the larger scale – is inherent in any forest conservation intervention implemented at sub-national level.

The project actively mitigates the risk of “leakage” in two major ways. First, the project does not aim to displace local communities engaged in destructive forest use, but rather help them to engage in

sustainable use of natural resources that is at the same time more productive from the local community's point of view. Conservation agriculture is a good case in point, where simple techniques to enhance yield and reduce wildlife damage can make a major difference to local livelihoods. In addition, the project will directly reward communities for engaging in sustainable forest management activities, thus generating a double bonus for local communities.

Second, the introduction of improved forest use and management practices over a large contiguous area, working alongside similar efforts funded by other donors, decreases the probability of important "leakage" events. Further risk mitigation measures to address leakage are likely to be devised under the Emissions Reduction Purchase Agreement the government intends to conclude with the Carbon Fund of the Forest Carbon Partnership Facility, and under the Zambézia Integrated Landscape Management Project co-funded by the Forest Investment Program, one of the Climate Investment Funds managed by the World Bank, and the government.

### ***Political instability***

Mozambique is facing increasing political instability and unrest. So far it does not affect the select pilot areas of the project, since it is localized along the main highways (EN1 and EN6). RENAMO, the opposition party, has been reported to conduct military attacks on those two main roads. As a result, it has sparked a wave of panic, with schools closing and resident fleeing their homes in central Mozambique (Sofala, Manica and Tete Provinces).

While in part of central Mozambique, the armed conflict prevails, Zambézia Province and the selected pilot areas of this project have not been affected as yet. To mitigate this risk the project will ensure that the UNDSS's Minimum Operating Security Standards and Standard Operating Procedures are applied for all project activities in the field.

### **5.3.2 Potential socio-economic risks posed by the project**

This section describes the potential environmental and social impacts of the project, using the checklist of the FAO Environmental Impact Assessment (EIA) guidelines. Review of the checklist shows that project is a Category C (as per old guidelines) to be translated into Low Risk category according to March 2015 Environmental and Social guidelines.

It is important to recognize that currently there is intense competition over natural resources in the project area, such as land, water, forests, biodiversity, and productive landscapes. And as a result of the direct pressures and drivers of change, their degradation is escalating. While the current project aims to address this challenge through the promotion of sustainable resource management, the proposed activities involve changes in access and security of rights of local communities to forest resources and the associated socio-economic benefits. While the impacts of these changes, particularly making the payment of 20% of forest revenues to local communities conditional upon their support to conservation and sustainable management, are unknown at this stage, it may create some tensions at the local level. Community members who are engaged in illegal activities are also required to give up their unsustainable practices and as a result, could be severely affected. There could also be significant variation in terms of who benefits from the project incentives, investments, and associated productivity improvements. This could be a major challenge to the concept of equitable benefits sharing.

Overall, these challenges pose a MEDIUM socio-economic risk, which will be addressed during the project implementation involving all levels of government. Mitigation efforts include clearly clarifying various dimensions of resource governance- tenure and access to natural resources, compensation, and related conflict resolution and grievance mechanisms. Among other strategies, the project activities will also be designed applying FAO's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT). FAO will also incorporate in the project specific mechanisms to consult with project-

affected representative communities and/or groups and civil society representatives. Stakeholder engagement, including local communities, disadvantaged and vulnerable groups will be a key component in designing, implementing and monitoring individual activities.

## 5.4. Financial management

### 5.4.1 Financial planning

The total cost of the project will be USD 41.2 million, to be financed through a US\$ 3,637,748 GEF grant and USD 37.6 million in co-financing, as detailed in Table 6.

Table 6 below shows the cost by component and by sources of financing and Table 3 shows the sources and type of confirmed co-financing. The FAO will, as the GEF Agency, only be responsible for the execution of the GEF resources and the FAO co-financing.

**Table 8. Summary of Financial Contributions (all figures in US\$)**

		Component 1	Component 2	Component 3	Component 4	Project Management	Total
		USD	USD	USD	USD	USD	USD
Implementation of the 20% Decree	Cash			4,800,000			4,800,000
Establishment of REDD+ MRV platform	Grant		3,000,000	2,000,000			5,000,000
REDD+ Readiness Preparation Grant	Grant		1,200,000	1,800,000	600,000		3,600,000
Forest Investment Program (FIP)	Grant	951,414	1,043,130	20,862,598	571,429	571,429	24,000,000
FAO tree cover assessment training	In-Kind		200,000				200,000
<b>Total Co-finance</b>		<b>951,414</b>	<b>5,443,130</b>	<b>29,462,598</b>	<b>1,171,429</b>	<b>571,429</b>	<b>37,600,000</b>
<b>GEF</b>	<b>Grant</b>	<b>634,214</b>	<b>748,053</b>	<b>1,534,804</b>	<b>547,451</b>	<b>173,226</b>	<b>3,637,748</b>
<b>Total Project</b>		<b>1,585,628</b>	<b>6,191,183</b>	<b>30,997,402</b>	<b>1,718,880</b>	<b>744,655</b>	<b>41,237,748</b>

### 5.4.2 Financial management and reporting

**Financial Records.** FAO shall maintain a separate account in United States dollars for the project's GEF resources showing all income and expenditures. Expenditures incurred in a currency other than United States dollars shall be converted into United States dollars at the United Nations operational rate of exchange on the date of the transaction. FAO shall administer the project in accordance with its regulations, rules and directives.

**Financial Reports.** The BH shall prepare six-monthly project expenditure accounts and final accounts for the project, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the un-liquidated obligations as follows:

- Details of project expenditures on a component-by-component and output-by-output basis, reported in line with project budget codes as set out in the project document, as at 30 June and 31 December each year.
- Final accounts on completion of the project on a component-by-component and output-by-output basis, reported in line with project budget codes as set out in the project document.

- A final statement of account in line with FAO Oracle project budget codes, reflecting actual final expenditures under the project, when all obligations have been liquidated.

The BH will submit the above financial reports for review and monitoring by the LTO and the FAO GEF Coordination Unit. Financial reports for submission to the donor (GEF) will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

**Budget Revisions.** Semi-annual budget revisions will be prepared by the BH in accordance with FAO standard guidelines and procedures.

**Responsibility for Cost Overruns.** The BH is authorized to enter into commitments or incur expenditures up to a maximum of 20 percent over and above the annual amount foreseen in the project budget under any budget sub-line provided the total cost of the annual budget is not exceeded.

Any cost overrun (expenditure in excess of the budgeted amount) on a specific budget sub-line over and above the 20 percent flexibility should be discussed with the GEF Coordination Unit with a view to ascertaining whether it will involve a major change in project scope or design. If it is deemed to be a minor change, the BH shall prepare a budget revision in accordance with FAO standard procedures. If it involves a major change in the project's objectives or scope, a budget revision and justification should be prepared by the BH for discussion with the GEF Secretariat.

Savings in one budget sub-line may not be applied to overruns of more than 20 percent in other sub-lines even if the total cost remains unchanged, unless this is specifically authorized by the GEF Coordination Unit upon presentation of the request. In such a case, a revision to the project document amending the budget will be prepared by the BH.

Under no circumstances can expenditures exceed the approved total project budget or be approved beyond the NTE date of the project. Any over-expenditure is the responsibility of the BH.

**Audit.** The project shall be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.

The audit regime at FAO consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the Governing Bodies of the Organization and reporting directly to them, and an internal audit function headed by the FAO Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO which establish a framework for the terms of reference of each. Internal audits of imprest accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis.

**Procurement.** Careful procurement planning is necessary for securing goods, services and works in a timely manner, on a "Best Value for Money" basis. It requires analysis of needs and constraints, including forecast of the reasonable timeframe required to execute the procurement process. Procurement and delivery of inputs in technical cooperation projects will follow FAO's rules and regulations for the procurement of supplies, equipment and services (i.e. Manual Sections 502 and 507). *Manual Section 502*: "Procurement of Goods, Works and Services" establishes the principles and procedures that apply to procurement of all goods, works and services on behalf of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Procurement Not Governed by Manual Section 502. *Manual Section 507* establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely

acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole life costs and benefits.

As per the guidance in FAO's Project Cycle Guide, the BH will draw up an annual procurement plan for major items, which will be the basis of requests for procurement actions during implementation. The first procurement plan will be prepared at the time of project start-up, if not sooner, in close consultation with the CTA and LTU. The plan will include a description of the goods, works, or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.

The procurement plan shall be updated every 12 months and submitted to FAO BH and LTO for clearance, together with the AWP/B and annual financial statement of expenditures report for the next instalment of funds.

The BH, in close collaboration with the CTA, the LTO and the Budget and Operations Officer will procure the equipment and services provided for in the detailed budget in Appendix 3, in line with the AWO and Budget and in accordance with FAO's rules and regulations.

## **SECTION 6 – MONITORING, REPORTING AND EVALUATION**

### **6.1. Oversight**

Project oversight will be carried out by the Project Steering Committee (PSC), the FAO GEF Coordination Unit and relevant Technical Units in HQ. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed project global environmental benefits/adaptation benefits are being delivered.

The FAO GEF Unit and HQ Technical Units will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions.

### **6.2 Monitoring**

Project monitoring will be carried out by the Project Management Unit (PMU) and the FAO budget holder. Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At inception the results matrix will be reviewed to finalize identification of: i) outputs ii) indicators; and iii) missing baseline information and targets. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc) will also be developed during project inception by the M&E specialist.

### **6.3 Reporting**

Specific reports that will be prepared under the M&E program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) annual Project Implementation Review (PIR); (v) Technical Reports; (vi) co-financing reports; and (vii) Terminal Report. In addition, assessment of the GEF Monitoring Evaluation Tracking Tools against the baseline (completed during project preparation) will be required at midterm and final project evaluation.

**Project Inception Report.** It is recommended that the PMU prepare a draft project inception report in consultation with the LTO, BH and other project partners. Elements of this report should be discussed during the Project Inception Workshop and the report subsequently finalized. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, a detailed project monitoring plan. The draft inception report will be circulated to the PSC for review and comments before its finalization, no later than one month after project start-up. The report should be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FPMIS by the BH.

**Results-based Annual Work Plan and Budget (AWP/B).** The draft of the first AWP/B will be prepared by the PMU in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The Inception Workshop (IW) inputs will be incorporated and the PMU will submit a final draft AWP/B within two weeks of the IW to the BH. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its review. Once comments have been incorporated, the BH will circulate the AWP/B to the LTO and the GEF Coordination Unit for comments/clearance prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project's Results Framework indicators so that the project's work is contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the

project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year. The AWP/B should be approved by the Project Steering Committee and uploaded on the FPMIS by the BH.

Project Progress Reports (PPR). PPRs will be prepared by the PMU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework (Annex 1). The purpose of the PPR is to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action in a timely manner. They will also report on projects risks and implementation of the risk mitigation plan. The Budget Holder has the responsibility to coordinate the preparation and finalization of the PPR, in consultation with the PMU, LTO and the FLO. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

Annual Project Implementation Review (PIR). The BH (in collaboration with the PMU and the LTO) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the TCI GEF Funding Liaison Officer (FLO) for review and approval **no later than (check each year with GEF Unit but roughly end June/early July each year)**. The FAO GEF Coordination Unit will submit the PIR to the GEF Secretariat and GEF Evaluation Office as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be uploaded on the FPMIS by the FLO.

Key milestones for the PIR process:

- Early July: the LTOs submit the draft PIRs (after consultations with BHs, project teams) to the GEF Coordination Unit ([faogef@fao.org](mailto:faogef@fao.org) , copying respective GEF Unit officer) for initial review
- Mid July: GEF Unit responsible officers review main elements of PIR and discuss with LTO as required
- Early/mid-August: GEF Coordination Unit prepares and finalizes the FAO Summary Tables and sends to the GEF Secretariat by (date is communicated each year by the GEF Secretariat through the FAO GEF Unit
- September/October: PIRs are finalized. PIRs carefully and thoroughly reviewed by the GEF Coordination Unit and discussed with the LTOs for final review and clearance
- Mid November 17: (date to be confirmed by the GEF): the GEF Coordination Unit submits the final PIR reports -cleared by the LTU and approved by the GEF Unit- to the GEF Secretariat and the GEF Independent Evaluation Office

Technical Reports: Technical reports will be prepared by national, international consultants (partner organizations under LOAs) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

Co-financing Reports: The BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

GEF Tracking Tools: Following the GEF policies and procedures, the relevant tracking tools for full sized projects will be submitted at three moments: (i) with the project document at CEO endorsement; (ii) at the project’s mid-term review/evaluation; and (iii) with the project’s terminal evaluation or final completion report. The TT will be uploaded in FPMIS by the GEF Unit. The TT are developed by the Project Design Specialist, in close collaboration with the FAO Project Task Force. They are filled in by the PMU and made available for the mid-term review an again for the final evaluation.

Terminal Report: Within two months before the end date of the project, and one month before the Final Evaluation, the PMU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or technical details. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

## 6.4 Evaluation

For full-sized projects, a **Mid-Term Review/Evaluation** will be undertaken at project mid-term to review progress and effectiveness of implementation in terms of achieving the project objectives, outcomes and outputs. The government has expressed a strong interest in being actively involved in the Mid-Term Review, given that the project aims to modify and improve the implementation of a national forestry and wildlife revenue sharing mechanism. Findings and recommendations of this review/evaluation will be instrumental for bringing improvement in the overall project design and execution strategy for the remaining period of the project’s term. FAO will arrange for the mid-term review/evaluation in consultation with the project partners. The evaluation will, *inter alia*:

- review the effectiveness, efficiency and timeliness of project implementation
- analyze effectiveness of partnership arrangements
- identify issues requiring decisions and remedial actions
- propose any mid-course corrections and/or adjustments to the implementation strategy as necessary
- highlight technical achievements and lessons learned derived from project design, implementation and management

It is recommended that an independent **Final Evaluation (FE)** be carried out three months prior to the terminal review meeting of the project partners. The FE will aim to identify the project impacts and sustainability of project results and the degree of achievement of long-term results. This evaluation will also have the purpose of indicating future actions needed to sustain project results and disseminate products and best-practices within the country and to neighbouring countries.

**Table 9. Summary of the main M&E activities, responsible parties and timeframe**

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget (USD)
Inception Workshop	The Chief Technical Advisor (CTA) leads the organization, in close consultation with FAO (BH, LTO and FAO GEF Unit).	Within first two months of project inception in Maputo and Zambézia	7,200

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget (USD)
Inception report	CTA with inputs from project partners.  Cleared by FAO and the Project Steering Committee.	Immediately after the project inception workshop	USD 0 - project inception report is developed by the CTA.
Design of monitoring and evaluation system	Monitoring and Evaluation Officer with support from the CTA and FAO Lead Technical Officer	Within the first six months after the project inception	11,320
Field-based impact monitoring and support	PMU with support from other project partners	Continually	55,350
Supervision missions	FAO LTO and FAO Mozambique	Annual or as required.	Paid by GEF Agency fee
Project progress reports (PPRs)	PMU.  Submitted to FAO MOZ (Budget Holder). Finalized reports submitted to the FAO GEF Unit by the LTO, and to the PSC by the CTA.	Six- monthly	USD 0 (as completed by CTA and PPF)
Project Implementation Review (PIR)	FAO LTO with inputs from the CTA and FAO Budget Holder. Submitted by the FAO GEF Coordination Unit to the GEF Secretariat. Final report also submitted to the PSC and the GEF Operational Focal Point by the CTA.	Annually	Paid by GEF Agency fee
Co-financing Reports	BH with support from PMU	Six monthly and annually as part of PPR and PIR.	-
Technical reports	PMU, Consultants, FAO	As appropriate	component budgets
Mid- term Review	External Consultant, in consultation with the project team including the FAO GEF Coordination Unit, the LTO, and other partners	At mid-point of project implementation	43,006

Type of monitoring and evaluation activity	Responsible parties	Time frame	Budget (USD)
Final evaluation	External Consultant, FAO independent Evaluation Office in consultation with the project team including the FAO GEF Coordination Unit, the LTO, and other partners	At the end of project implementation	63,006
Terminal Workshop and Report	PMU	At least one month before end of project	7,000
<b>TOTAL</b>			<b>186,882</b>

## 6.5 Communication

Giving high visibility to the project and ensuring effective communications about its results are crucial for three main reasons. First, it will allow the project to function as a catalyst for raising general societal awareness on the importance and value of the ecosystem services that are provided by healthy forest resources. Second, to further the ongoing political dynamic towards highlighting the role of forests for Mozambique's sustainably development based on the principles of SFM, including biodiversity conservation and carbon emissions reduction. Third, to prepare the ground for direct and immediate replication and scaling up of PES activities, both in sectors other than forestry and in provinces other than Zambézia.

Sustainability and effectiveness of the project calls for an appropriation of the process by the local communities, and it requires close collaboration with government institutions at national, provincial and district levels. Inadequate mechanisms for their effective participation could seriously compromise the delivery of both local and global benefits. For this purpose, awareness campaigns about how the integration of PES will modify the existing forestry and wildlife revenue sharing mechanism will be organised at the early stage of the project under output 3.1 at community level. It is an important step in making understandable the mid and long-term benefits from sustainable forest management. They will include a fundamental participation phase as regard to good practices to be rewarded. Those information sharing and exchanges sessions will have also to include national and local government's institutions representatives, the NRM Committees concerned and other civil society organisations involved. PES best practices will then be developed and disseminated under output 4.2 through appropriate communication materials.

Throughout the project, information will be shared on a transparent and continuous basis. Trained local facilitators from the communities will be key stakeholders for effective awareness-raising and dialogue. Consultation processes will involve government institutions, NRM Committees and other civil society organisations, and will also provide opportunities for the expression of any grievance, question or request for advice. Regarding the rewarding process and the sharing of the 20% tax revenues with the local communities, a mechanism for addressing disputes will be set up.

Practically demonstrating the effectiveness of SFM practices remains one of the most powerful instruments for inducing widespread adoption. On a regular basis, results from the monitoring system will be communicated through different activities such as field visits and training sessions. Component 2, working alongside component 3 of the project, will provide training sessions on SFM for the communities and capacity building programmes for government institutions and civil society organisations.

Ultimately, project progress reports, the mid-term evaluation/review and final evaluation will be valuable document for all partners that will intervene in the future in the region.



### Annex 1: Results Framework

Objective and Outcomes	Indicator	Baseline	Mid-project target	End of Project target	Source of Information	Assumptions
<b>Project objective</b>  Promote biodiversity conservation and climate change mitigation in miombo forest ecosystems, through the improvement of the existing revenue sharing mechanism that supports sustainable use and conservation of forests and wildlife and improves local peoples' livelihoods	Carbon stored in forest ecosystems and emissions avoided from deforestation and forest degradation from this project (Mt CO <sub>2</sub> e, direct lifetime)	0	n.a.	1.49	REDD+ MRV system that is being established with assistance of FCPF and FAO Forestry Department..	Interim performance criteria (proxy indicators other than directly measured CO <sub>2</sub> emissions reductions, e.g. reduced frequency of wildfires) can be devised to measure annual performance of local communities having concluded PES agreements with MITADER; Improved forestry and wildlife revenue sharing mechanism will be aligned with national REDD+ MRV system under development by MITADER with FCPF and JICA assistance, once this will have become operational (to prevent confusion among local communities); .  Illegal logging is reduced so that more forestry tax revenue is available for sharing with local communities.
	Area (ha) where local communities are implementing one or more SFM practices (fire control, conservation agriculture, sustainable wood production) under RSMagreement <sup>75</sup>	0	50,000	300,000	PES agreements concluded between MITADER and local communities.	

<sup>75</sup> This indicator provides the information for Part III (Management Practices Applied) of Objective 2 of the BD Tracking Tool, mainstreaming of BD conservation in production landscapes.

Objective and Outcomes	Indicator	Baseline	Mid-project target	End of Project target	Source of Information	Assumptions
	Number of households that are reporting increased revenue based on alternative income-generating activities, disaggregated by male and female-headed households.	0	n.a.	10,000 <sup>76</sup>	Reports from partner NGOs working in Zambézia Province	
<b>Outcome 1. National Revenue Sharing Mechanism (RSM) improved</b>	Adoption of legal text to modify 20% forest revenue sharing mechanism into RSM	0	0	1	Official journal of the government of Mozambique	National and provincial authorities remain supportive of environmental policy and institutional reform agenda.
	Number of productive sectors where PES rules: (i) have been adopted and (ii) are under implementation <sup>77</sup>	(i): 0 (ii): 0	(i): 2 (ii): 0	(i): 3 (ii): 1	Sector funds and revenue sharing mechanisms rules and regulations and project records	
Output 1.1 Forestry and wildlife revenue sharing mechanism (“20% Decree”) ameliorated to reward local community engagement in sustainable forest management Output 1.2 Common set of “rules of the game” developed for the integration of environmental performance criteria into existing sector funds and revenue sharing mechanisms, both for forestry and for other sectors						
<b>Outcome 2. Enhanced human and institutional capacity to oversee and implement improved RSM</b>	Number of government and NGO staff whose capacity to implement revenue sharing mechanisms (RSM) has improved as a result of the training received	0	Gov staff: 5 NGO staff: 5	Gov staff: 15 NGO staff: 15	Knowledge, Attitude and Practice (KAP) <sup>78</sup> surveys of government and NGO involved in implementing improved RSM	Staff trained by the project will be sufficiently motivated to continue to work for the government  Government foresters willing to participate in RSM testing and training in the 7 Districts (despite minimal financial incentives)
	Number of NRM Committees whose capacity to implement RSM schemes	0	10	20	Knowledge, Attitude and Practice (KAP) surveys of NRM committees involved	

<sup>76</sup> This is equivalent to 40% of the 25,000 households (150,000 people) that are represented by the 26 NRM Committees the project will work with.

<sup>77</sup> This indicator provides the information for Part V (Policy and regulatory frameworks) of objective 2 of the BD Tracking Tool, mainstreaming of BD conservation in production landscapes.

<sup>78</sup> The KAP methodology is a standard tool used in most FAO capacity building efforts. A detailed learning needs assessment will be conducted in the first year of project implementation to define exiting knowledge levels, job tasks, roles and responsibilities of government and NGO staff and community-level Natural Resource Management Committees, and to determine learning goals. Further KAP surveys will be carried out at mid-term and end of project to measure changes in PES capacity of the different target audiences.

Objective and Outcomes	Indicator	Baseline	Mid-project target	End of Project target	Source of Information	Assumptions
	has increased as a result of the training received				in implementation of RSM	
	Numbers of staff/overseers of other sectoral funds and revenue sharing mechanisms whose awareness about environmental performance criteria for RSM has improved	0	6	10	Knowledge, Attitude and Practice (KAP) surveys of staff/overseers of other sector funds and revenue sharing mechanisms having participated in RSM awareness-raising activities	
	Quality and relevance of institutional / intersectoral coordination mechanisms <sup>79</sup>	0	2	8	Project records and government documents.	
<p>Outputs:</p> <p>2.1 Capacity development program<sup>80</sup> for Forestry institutions, NGOs and community-level Natural Resource Management Committees active in Zambézia RSM implementation (see component 3) designed and implemented</p> <p>2.2 Capacity development program for managers of other sector funds and revenue sharing mechanisms to design and oversee the implementation of improved RSM designed and implemented</p> <p>2.3 Capacity development program developed for cross-sectoral coordination re improved RSM, especially at Province and District levels</p>						
<b>Outcome 3. Improved, environmental performance-based version of existing government forestry tax revenue sharing mechanism operational in 7 districts of Zambézia Province</b>	Percentage of total forestry tax revenue shared with local communities in Zambezi Province conditional on RSM agreements	0	10%	50%	Records of RSM environmental agreements with local communities Records of disbursement of incentives	Govt of Mozambique willing to revise the existing Ministerial decree to make forest (and wildlife) revenue sharing with local communities conditional on their environmental performance
	Custom indicator to measure improvement in	0	10	20	Custom-made scorecard to be assessed by partner	Suitable community-level incentives can be agreed with MITADER/UT-REDD.

<sup>79</sup> This indicator is designed to capture the extent to which improved RSM issues are coordinated across relevant institutions such as ministries, government agencies, or other bodies with a responsibility to integrate CRM into their activities. The indicator takes the form of a scorecard (0-10) based on five criteria relating to the nature of coordination mechanisms and processes.

<sup>80</sup> Capacity development programs will be based on good learning practices for effective capacity development in FAO Learning Module 3 on Effective Learning ([www.fao.org/capacitydevelopment](http://www.fao.org/capacitydevelopment)), including action-oriented peer-to-peer adult learning

Objective and Outcomes	Indicator	Baseline	Mid-project target	End of Project target	Source of Information	Assumptions
	functionality and gender equity of NRM committees <sup>81</sup>				NGOs.	Provincial and district authorities willing to experiment with more transparent ways of applying the forest revenue sharing mechanism.
	Percentage of women beneficiaries	n.a.	50%	50%	Project surveys and records.	
	National replication plan developed and disseminated	0	0	1	Publications, workshop records.	
<b>Outputs:</b> 3.1 Guidance for improved functioning (transparency and equity) of NRMCs developed and tested in 7 districts of Zambezi Province 3.2 Guidance on performance criteria of improved RSM developed and tested in 7 districts in Zambezi Province through improved version of existing 20% forest and wildlife revenue sharing mechanism 3.3 Lessons learned from the application of improved RSM in 7 districts shared with other districts in Zambezi province 3.4 National replication plan for improved forest and wildlife revenue sharing mechanism that is conditional on environmental performance developed						

<sup>81</sup> Improved functionality assessed measured through score card from 0-5 based on criteria such as improved record keeping, improved representation of women in NRM Committee leadership, types of activities funded, assessment of whether funds were spent in accordance with NRMC decisions. At the end of the project 20 out of the 26 NRM committees should have reached a score of at least 3 out of 5 on the custom score card.

**Annex 2: Work Plan**

Output	Activities	Responsible institution/entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
<b>PROJECT START UP</b>	Recruit members of PMU team	FAO	■	■																		
	Orient PMU members	FAO	■	■																		
<b>Training – component 4</b>	Organize the National inception workshop	FAO/MITAD ER			■																	
<b>Training – component 4</b>	Organize the local inception workshop	FAO/DPTAD ER			■																	
<b>No cost</b>	Recruit consultants for Component 1 and 2	FAO			■	■																
<b>Gender mainstreaming Cost shared by components 1,2 &amp;3 – consultants and travel</b>	Conduct detailed analysis of mainstreaming needs	FAO			■	■																
	Develop gender mainstreaming strategy	FAO			■	■																
	Monitor and follow-up on gender mainstreaming effectiveness	FAO					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>Monitoring and evaluation</b>	Develop M&E plan	FAO			■	■																
	Develop reporting plan	FAO			■	■																
	Conduct mid-term review	FAO									■	■										
	Conduct final evaluation	FAO																			■	■
	Organize final workshop/lessons learned	FAO																			■	■
<b>PROJECT CLOSURE</b>	Negotiate details of exit/sustainability strategy	FAO									■	■	■	■	■	■	■	■	■	■	■	■
	Terminal Report																					■
	Transfer of equipment																					■
<b>Outcome 1. National Revenue Sharing Mechanisms (RSM) improved</b>																						

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
<b>Output 1.1</b> Forestry and wildlife revenue sharing mechanism (“20% Decree”) ameliorated to reward local community engagement in sustainable forest management	1.1.1 Completion of a legal study and proposal for revised text of the 20% Decree	FAO / MITADER																				
	1.1.2 Organization of a national seminar, to seek consensus on revised 20% Decree text	FAO/MITADER																				
<b>Output 1.2</b> Common set of “rules of the game” developed for the integration of environmental performance criteria into existing sector funds and revenue sharing mechanisms, both for forestry and for other sectors	1.2.1 Development of communication strategies for sectoral funds and revenue sharing mechanisms other than forestry	FAO / MITADER																				
	1.2.2 Conduct meetings, presentations and discussions with other sector funds and revenue sharing mechanisms interested in adopting PES rules	FAO/MITADER/MIREME/MIMAP																				
	1.2.3 Organize high-level RSM workshop with interested sector funds and revenue sharing mechanisms	FAO/MITADER/MIREME/MIMAP																				

Output	Activities	Responsible institution/entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
Same consultant of 1.2.1	1.2.4 Finalize the “rules of the game” for both for forestry and other sectors	FAO/ MITADER/ MIREME/MI MAP																				
To be decided after year 1, based on interest shown by sector funds	1.2.5 Test PES with other interested sector funds and revenue sharing mechanisms	FAO/MITAD ER/MIREME /MIMAP																				
<b>Outcome 2. Enhanced human and institutional capacity to oversee and implement improved RSM</b>																						
<b>Output 2.1</b> Capacity development program <sup>82</sup> for Forestry institutions, NGOs and community-level Natural Resource Management Committees active in Zambézia RSM implementation (see component 3) designed and implemented	2.1.1 Completion of a RSM (including PES) implementation capacity needs assessment for government and NGO staff and NRMC members	FAO/MITAD ER																				
	2.1.2 Elaboration and execution of PES training courses for government and NGO staff and NRMC members	FAO/MITAD ER																				

<sup>82</sup> Capacity development programs will be based on good learning practices for effective capacity development in FAO Learning Module 3 on Effective Learning ([www.fao.org/capacitydevelopment](http://www.fao.org/capacitydevelopment)), including action-oriented peer-to-peer adult learning

Output	Activities	Responsible institution/entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	2.1.3 Implementation of PES training courses for government and NGO staff and NRMC members	FAO/MITADER																				
<b>Output 2.2</b> 2 Capacity development program for managers of other sector funds and revenue sharing mechanisms to design and oversee the implementation of improved RSM designed and implemented	2.2.1 Complete PES design capacity needs assessment for managers and overseers of sector funds and revenue sharing mechanism	FAO/MITADER/ MIREME/MIMAP																				
	2.2.2 Organize PES initiation workshop for managers and boards of sector funds and revenue sharing mechanisms held	FAO/MITADER																				
	2.2.3 Complete studies for interested sector funds to review organizational mandates and priorities for PES	FAO/MITADER																				
<b>Output 2.3</b> Capacity development program developed for cross-sectoral coordination regarding improved RSM, especially at Province and District levels	2.3.1 Identify other land use actors at Provincial and District level NO COST	FAO/MITADER/DPTADER																				
	2.3.2 Support RSM and PES discussions in the existing Provincial and District level multi-	FAO/MITADER/DPTADER																				

Output	Activities	Responsible institution/entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	sectoral fora																					
	NO COST																					
	2.3.3 Organize regular information exchange and coordination meetings with other land use actors at Provincial and District level	FAO/MITADER/DPTADER																				
<b>Outcome 3. Improved, environmental performance-based version of existing government forestry tax revenue sharing mechanism operational in 7 districts of Zambezia Province</b>																						
<b>Output 3.1</b> Guidance for improved functioning (transparency and equity) of NRMCS developed and tested in 7 districts of Zambezi Province *	3.1.1 Guidelines for improved functioning of NRMCS drafted based on lessons learned from CBNRM initiatives in Mozambique and elsewhere.	FAO																				
	3.1.2 Hold a seminar to discuss and modify draft guidelines for improved functioning of Natural Resource Management (NRM) Committees	FAO																				
	3.1.3. Reinforce NRM Committees, build elementary organizational structure and capacity	NGOs																				

Output	Activities	Responsible institution/entity	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q1	Q2	Q3	Q4																
	development programs																					
<b>Output 3.2</b> Guidance on performance criteria of improved RSM developed and tested in 7 districts in Zambezi Province through improved version of existing 20% forest and wildlife revenue sharing mechanism	3.2.1 Conclusion of letters of agreement with 6 NGOs to initiate and maintain PES activities with 26 NRMC	FAO/MITADER/DPTADER/NGOs																				
	3.2.2 NGO support to local communities to initiate and maintain PES activities with 26 NRM Committees.	NGOs																				
<b>Output 3.3</b> Lessons learned from the application of improved RSM in 7 districts shared with other districts in Zambezi province	3.3.1 Conduct Seminar series in Zambézia Province to share lessons learned from PES implementation experience gained with MITADER and local authorities	FAO/MITADER/DPTADER																				
	3.3.2 Organize exchange visits and experience sharing among local communities	FAO/MITADER/DPTADER/local NGOs																				
<b>Output 3.4</b> National replication plan for improved forest and wildlife revenue sharing mechanism that is conditional on environmental performance	3.4.1 Development of a national replication plan for modified forest and wildlife revenue sharing mechanism that is conditional on	FAO/MITADER																				

Output	Activities	Responsible institution/ entity	Year 1				Year 2				Year 3				Year 4				Year 5				
			Q1	Q2	Q3	Q4																	
developed	environmental performance developed																						
	3.4.2 Organize a national seminar to discuss draft national replication plan	FAO/MITAD ER																					

### Annex 3: Budget

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Expenditures by year										
										Year 1	Year 2	Year 3	Year 4	Year 5						
<b>5300 Salaries professionals</b>																				
FAO Representation based officers	months	60						173,226	173,226	34,645	34,645	34,645	34,645	34,645						
0	0	0	0	0	0	0	0	0	0	0	0									
Terminal report	lump sum						7,000		7,000					7,000						
<b>5300 Sub-total salaries professionals</b>										0	0	0	7,000	173,226	180,226	34,645	34,645	34,645	34,645	41,645
<b>5570 International Consultants</b>																				
CTA - P4	day	1200	135	162,000	162,000	162,000	162,000		648,000	129,600	129,600	129,600	129,600	129,600						
International consultant on gender mainstreaming to assess mainstreaming needs, develop gender mainstreaming strategy / monitor mainstreaming implementation - shared by component 1, 2 and 3	day	20	400	24,000					24,000	8,000	8,000	4,000		4,000						
2.1.2 International consultant to develop PSA training programme for government and NGO staff and train a critical mass of master trainers	day	30	500		30,000				30,000	10,000	10,000	10,000								
2.2.2 International consultant - PSA Initiation workshop	day	6	500		3,000				3,000	3,000										

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Total	Expenditures by year				
											Year 1	Year 2	Year 3	Year 4	Year 5
2.2.3 International consultants to complete studies for interested sector funds to review organizations' mandates and priorities for PSA - travel to be combined with activity 2.1.2 (only one ticket)	day	10	500		12,500				12,500	5,000	5,000	2,500			
Mid term and final evaluation consultants	lump sum	1	90,000				90,000		90,000			35,000		55,000	
	months								0						
	months								0						
Sub-total international Consultants				186,000	207,500	162,000	252,000	0	807,500	155,600	152,600	181,100	129,600	188,600	
<b>National consultants</b>															
National project coordinator	month	0	0	0	0	0	0		0			0	0	0	
M&E Officer	month	12	3,800	57,000	57,000	57,000	57,000		228,000	45,600	45,600	45,600	45,600	45,600	
Administrative assistant	month	12	1,300	19,500	19,500	19,500	19,500		78,000	15,600	15,600	15,600	15,600	15,600	
Drivers	month	24	700	21,000	21,000	21,000	21,000		84,000	16,800	16,800	16,800	16,800	16,800	
Provincial Project Facilitator	month	12	1,800		36,000	36,000	36,000		108,000	21,600	21,600	21,600	21,600	21,600	
1.1.1 and 1.1.3 National consultant - Complete legal study of the 20% Decree	day	40	250	10,000	0	0	0		10,000			10,000			

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Total	Expenditures by year				
											Year 1	Year 2	Year 3	Year 4	Year 5
1.2.1. National consultant - Develop communication strategies for sectoral funds and revenue sharing mechanisms and communication for visibility	day	20	300	30,000	0	0	0		30,000	6,000	6,000	6,000	6,000	6,000	
2.1.1 National consultant to Complete PSA implementation capacity needs assessment for government, NGO staff and NRMC members	Days	15	250		3,750	0	0		3,750	3,750					
2.2.1 National Consultant to complete PSA design capacity needs assessment for managers and overseers sector funds and revenue sharing mechanism	Days	15	250		3,750	0	0		3,750	3,750					
3.1.1 National consultant to develop guidelines for improved functioning of NRMCs based on lessons learned from CBNRM initiatives in Mozambique and elsewhere	days	24	300				7,200		7,200		7,200				
3.4.1 National consultant to Develop a national replication plan for modified forest and wildlife revenue sharing mechanism	days	24	300		0	7,200	0		7,200				7,200		
National consultant - Database and Monitoring expert to develop M&E Plan	Days	30	300				9,000		9,000	9,000					
0	0	0	0				0		0			0		0	
Sub-total national Consultants				137,500	141,000	147,900	142,500	0	568,900	122,100	112,800	115,600	112,800	105,600	
5570 Sub-total consultants				323,500	348,500	309,900	394,500	0	1,376,400	277,700	265,400	296,700	242,400	294,200	
5650 Contracts															
1.2.5 Test PSA for other interested sector funds	LOA	2	35,000	70,000					70,000				70,000		
2.3.3 LOA with Zambezia - Joint activities with REDD/PSA	LOA	1	6,000		30,000				30,000	6,000	6,000	6,000	6,000	6,000	

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Total	Expenditures by year				
											Year 1	Year 2	Year 3	Year 4	Year 5
2.3.3 LOA with Zambezia - Logistics and coordination support for REDD	LOA	1	5,000		25,000				25,000	5,000	5,000	5,000	5,000	5,000	
2.1.3 LOA with NGOs to implement PSA training courses	LOA	1	5,000		10,000				10,000		5,000	5,000			
3.2.1 Initiate and maintain PSA activities with 26 NRMC with support from 6 NGOs through LOAs	LOA	6	25,000		0	750,000			750,000	150,000	150,000	150,000	150,000	150,000	
3.3.1 Conduct Seminar series in Zambezia Province to share lessons learned from PSA implementation experience implemented through an LOA with MITADER	LOA	4	5,000			20,000			20,000				20,000		
3.3.2 Organize exchange visits and experience sharing among local communities with Support from NGOs and implemented through LOAs	LOA	6	2,500			15,000			15,000				15,000		
<b>5650 Sub-total Contracts</b>				<b>70,000</b>	<b>65,000</b>	<b>785,000</b>	<b>0</b>	<b>0</b>	<b>920,000</b>	<b>161,000</b>	<b>166,000</b>	<b>166,000</b>	<b>266,000</b>	<b>161,000</b>	
<b>5900 Travel</b>									<b>0</b>						
Travel costs and DSA for field visits - NPC	Trips	0	0	0	0	0	0		0			0	0	0	
Travel costs and DSA for field visits - CTA	Trips	8	1,500	15,000	15,000	15,000	15,000		60,000	12,000	12,000	12,000	12,000	12,000	
Travel costs and DSA for field visits - M&E officer	Trips	8	1,350	13,500	13,500	13,500	13,500		54,000	10,800	10,800	10,800	10,800	10,800	
DSA for Provincial facilitator (Elsewhere)	days	15	179	13,425	13,425	13,425	13,425		53,700	10,740	10,740	10,740	10,740	10,740	
DSA Driver	days	15	179	13,425	13,425	13,425	13,425		53,700	10,740	10,740	10,740	10,740	10,740	
DSA for National consultant working on the 20% Decree	day	40	182	7,280					7,280			7,280			
Ticket for National consultant working on the 20% Decree	ticket	2	650	1,300					1,300			1,300			
International ticket for gender mainstreaming consultant	ticket	1	2,250	9,000					9,000	2,250	2,250	2,250		2,250	
National ticket for gender mainstreaming consultant to Zambezia	ticket	1	500	2,000					2,000	500	500	500		500	

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Total	Expenditures by year				
											Year 1	Year 2	Year 3	Year 4	Year 5
DSA for international gender mainstreaming consultant	day	20	319	19,140					19,140	6,380	6,380	3,190		3,190	
2.1.2 DSA Maputo for International consultants to develop PSA training programme and train master trainers	day	5	319		4,785				4,785	1,595	1,595	1,595	0	0	
2.1.2 DSA Quelimane for International consultants to develop PSA training programme and train master trainers	day	10	182		5,460				5,460	1,820	1,820	1,820	0	0	
2.1.2 International ticket - for International consultants to develop PSA training programme and train master trainers	ticket	1	2,250		6,750				6,750	2,250	2,250	2,250	0	0	
2.1.2 National ticket (MPT - Zambézia) - for International consultants to develop PSA training programme and train master trainers	ticket	1	500		1,500				1,500	500	500	500	0	0	
2.1.2 Training for Master trainers - DSA for participants (10 days x 30 part.)	day	300	50		37,500				37,500	15,000	15,000	7,500	0	0	
2.2.2 DSA for International consultant - PES Inception workshop	day	5	319		1,595				1,595	1,595			0	0	
2.2.3 International consultants to complete studies for interested sector funds to review organizations' mandates and priorities for PSA - travel to be combined with activity 2.1.2 (only one ticket) - DSA Quelimane	day	5	182		2,730				2,730	910	910	910			
2.2.3 International consultants to complete studies for interested sector funds to review organizations' mandates and priorities for PSA - travel to be combined with activity 2.1.2 (only one ticket) - DSA Maputo to deal with sector funds	day	5	319		4,785				4,785	1,595	1,595	1,595			
National ticket (MPT - Zambézia) - project team in support of 4 seminar series in Zambezia	ticket	3	650			1,950			1,950	0	0	0	1,950	0	
DSA (Zambézia) - project team in support of 4 seminar series in Zambezia	days	42	179			7,518			7,518	0	0	0	7,518	0	

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Total	Expenditures by year				
											Year 1	Year 2	Year 3	Year 4	Year 5
DSA Quelimane for Database expert in support of M&E PLAN	day	10	182				1,820		1,820	0	0	0	1,820	0	
National ticket (MPT - Zambézia) - Data base expert in support of M&E plan	ticket	1	500				500		500	0	0	0	500	0	
Mid term and final evaluation missions - DSA Maputo	days	6	319				3,828		3,828	0	0	1,914	0	1,914	
Mid term and final evaluation missions - DSA Quelimane	days	6	182				2,184		2,184	0	0	1,092	0	1,092	
Mid term and final evaluation missions - Tickets	tickets	2	2,500				10,000		10,000	0	0	5,000	0	5,000	
<b>5900 Sub-total travel</b>				<b>94,070</b>	<b>120,455</b>	<b>64,818</b>	<b>73,682</b>	<b>0</b>	<b>353,025</b>	<b>78,675</b>	<b>77,080</b>	<b>82,976</b>	<b>56,068</b>	<b>58,226</b>	
<b>5023 Training and workshops</b>															
1.1.2 Organize national seminar, to seek consensus on revised 20% Decree text	workshop	1	10,000	10,000					10,000	10,000	0	0	0	0	
1.2.2 Conduct meetings, presentations and discussions with other sector funds and revenue sharing mechanisms	workshop	1	500	1,500					1,500	500	500	500			
1.2.3 Organize high-level workshop with interested sector funds 1 day - 30 participants (room rental)	workshop	1	400	400					400			400			
1.2.3 Organize high-level workshop with interested sector funds 1 day - 30 participants (refreshments and lunch)	participants	30	80	2,400					2,400			2,400			
2.1.2 Training for Master trainers - room rental	day	12	350		12,600				12,600	4,200	4,200	4,200	0	0	
2.1.2 Training for Master trainers - refreshments and lunch for participants (9 days(9 days of training - the 10th day is for travel) x 30 part. + 5 staff)	participant	315	80		63,000				63,000	25,200	25,200	12,600	0	0	
2.2.2 Organize PSA initiation workshop for managers and boards of sector funds and revenue sharing mechanisms - Room rental	day	1	400		400				400	400	0	0	0	0	

Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Expenditures by year				
										Year 1	Year 2	Year 3	Year 4	Year 5
2.2.2 Organize PSA initiation workshop for managers and boards of sector funds and revenue sharing mechanisms - refreshments and lunch for 25 participants in 1 day	participant	25	80		2,000				2,000	2,000	0	0	0	0
3.4.2 Organize a national seminar to discuss draft national replication plan for forestry PSA	lumpsum	1	10,000			10,000			10,000	0	0	0	0	10,000
3.1.2 Hold a seminar to discuss and modify drafted guidelines for improved functioning of NRMCS - room rental	Room/day	1	400			400			400		400			
3.1.2 Hold a seminar to discuss and modify drafted guidelines for improved functioning of NRMCS - Refreshments and lunch for one day - 50 participants	participant	50	80			4,000			4,000		4,000			
Organize the National inception workshop in Maputo for 25 participants (1 day) - Room rental	day	1	400				400		400	400				
Organize the National inception workshop in Maputo for 30 participants (1 day) - Meals and Refreshments	participants	30	80				2,400		2,400	2,400				
Organize the local inception workshop in Quelimane - Room rental (1 day - 50 participants)	day	1	400				400		400	400				
Organize the local inception workshop in Quelimane - Meals & refreshments (1 day - 50 Participants)	participants	50	80				4,000		4,000	4,000				
<b>5023 Sub-total training</b>				<b>14,300</b>	<b>78,000</b>	<b>14,400</b>	<b>7,200</b>	<b>0</b>	<b>113,900</b>	<b>49,500</b>	<b>34,300</b>	<b>20,100</b>	<b>0</b>	<b>10,000</b>
<b>6000 Expendable procurement</b>														
Office supplies - Stationary	month	12	600	9,000	9,000	9,000	9,000		36,000	7,200	7,200	7,200	7,200	7,200
Training for Master trainers - reproduction material	lump sum	1	5,000		12,500				12,500	5,000	5,000	2,500	0	0
Colmeias, viveiros, marcos	year	1	10,000			50,000			50,000	10,000	10,000	10,000	10,000	10,000

										Expenditures by year					
										Total					
Oracle code and description	Unit	No. of units	Unit cost	Component 1:	Component 2:	Component 3:	Component 4:	PM	GEF	Year 1	Year 2	Year 3	Year 4	Year 5	
			0												
Seeds for conservation agriculture	year	1	15,000			75,000			75,000	15,000	15,000	15,000	15,000	15,000	
Equip to reduce/control wildlife damage	year	1	6,760			33,800			33,800	6,760	6,760	6,760	6,760	6,760	
3.4.2 Reproduction of material for seminar on replication plan	lump sum	1	2,500			2,500			2,500	0	0	0	0	2,500	
Communication material for visibility	per year	1	13,000	65,000					65,000	13,000	13,000	13,000	13,000	13,000	
<b>6000 Sub-total expendable procurement</b>				<b>74,000</b>	<b>21,500</b>	<b>170,300</b>	<b>9,000</b>	<b>0</b>	<b>274,800</b>	<b>56,960</b>	<b>56,960</b>	<b>54,460</b>	<b>51,960</b>	<b>54,460</b>	
<b>6100 Non-expendable procurement</b>															
Computer, UPS and anti virus license	PC	5	2,000	4,000	2,000	2,000	2,000		10,000	10,000					
Vehicle	vehicle	2	48,500	0	48,500	48,500	0		97,000	97,000					
Printer/ scanner/ photocopier	Printer	2	2,500	2,500	0	2,500	0		5,000	5,000					
6 motorcycles for the NGOs	lump sum	6	5,000		0	30,000	0		30,000	30,000	0	0	0	0	
Digital cameras (high resolution)	Camera	2	1,000		1,000	1,000	0		2,000	2,000					
GPS	GPS	8	350		0	2,800			2,800	2,800					
Laptop	item	1	2,500	2,500		2,500			5,000	5,000					
<b>6100 Sub-total non-expendable procurement</b>				<b>9,000</b>	<b>51,500</b>	<b>89,300</b>	<b>2,000</b>	<b>0</b>	<b>151,800</b>	<b>151,800</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>6300 GOE budget</b>															
Miscellaneous - telephone, internet				19,944	33,698	71,686	24,669		149,996	29,999	29,999	29,999	29,999	29,999	
Fuels, maintenance, insurance - vehicles operations and maintenance	lump sum	12	1960	29,400	29,400	29,400	29,400		117,600	23,520	23,520	23,520	23,520	23,520	
<b>6300 Sub-total GOE budget</b>				<b>49,344</b>	<b>63,098</b>	<b>101,086</b>	<b>54,069</b>	<b>0</b>	<b>267,596</b>	<b>53,519</b>	<b>53,519</b>	<b>53,519</b>	<b>53,519</b>	<b>53,519</b>	
<b>TOTAL</b>				<b>634,214</b>	<b>748,053</b>	<b>1,534,804</b>	<b>547,451</b>	<b>173,226</b>	<b>3,637,748</b>	<b>863,800</b>	<b>687,905</b>	<b>708,401</b>	<b>704,592</b>	<b>673,050</b>	

## Annex 4: The Project Risk Log

### A. Risks

Risk No.	Risk statement	Impact (effect on project organization if risk were to occur: H, MH, ML, or L)	Likelihood (estimate of likelihood: H, MH, ML, or L)	Overall ranking (Red/Amber/Green)	Mitigating action	Action owner
1	Insufficient collaboration among government and local NRMCS	H	L	Amber	a. PSC representation b. govt involvement in project design c. shared training activities d. build trust through increased transparency of RSM	PCU
2	Continued illegal forest use reduces improved RSM (PES) effectiveness	M	M	Amber	a. MITADER commitment and action on policy reform agenda b. project focus on capacity building and dialogue	Govt + PCU
3	Emissions reductions threatened by climate change impact on forest (fire frequency)	M	M	Amber	a. improved forest management practices promoted by project reduce risk b. alignment with partners covering a large contiguous area	PCU + Govt
4	Leakage risk	M	L	Amber	a. focus on improving local forest and farm practices reduces risk b. alignment with partners covering a large contiguous area	PCU + Govt
5	Deteriorating security situation	H	L	Amber	a. careful selection of pilot areas b. apply UNDSS sec standards	PCU

## B. Environmental and Social risks

ESS Standard	Risk Description	Mitigation hierarchy	Mitigation action	Responsible	Timeframe	Indicator
ESS1	1. Includes measures that build resilience to climate change?	Mitigate risks to acceptable levels and where possible, compensate residual risks technically and financially	Adaption of climate smart agriculture and improved forest management practices	Project Implementation Unit	Throughout the duration of the project	Description of specific actions in the project activities
	2. Negatively affect the legitimate tenure rights of individuals, communities or others?	The impacts are unknown at this stage. However, efforts are incorporated in the project to minimize such outcomes	Follow national as well as FAO guidelines on responsible governance of tenure and other rights	Project Implementation Unit	Throughout the duration of the project	Description of specific actions addressing these dimensions in the project activities.
ESS 2	No adverse effects are foreseen on biodiversity, ecosystems and natural habitats		Project makes reasonable and feasible effort to avoid practices that could have a negative impact on biodiversity, including ag biodiversity and genetic resources.			
ESS 3	No adverse effects on plant genetic resources for food and agriculture are foreseen	Not applicable	Project makes reasonable and feasible effort to avoid practices that could have a negative impact on these resources.			
ESS 4	No adverse effects on animal, livestock and aquatic genetic resources for food and agriculture are foreseen	Not applicable	Project makes reasonable and feasible effort to avoid practices that could have a negative impact on these resources.			
ESS 5	The project doesn't involve pest and pesticide management	Not applicable				
ESS 6	Involuntary resettlement and displacement of people	The project has no interventions that could result in involuntary resettlement and displacement of people	Project makes all effort to avoid such outcomes.	Project Implementation Unit	Throughout the duration of the project	Description of specific actions addressing these dimensions in the project activities.
ESS 7	Decent work-	Not applicable				
ESS 8	Gender Equity-	No risk foreseen	Project strives to promote equitable access and control over productive resources and services to avoid such outcomes.	Project Implementation Unit	Throughout the duration of the project	Description of specific actions addressing these dimensions in the project activities.
ESS 9	Indigenous people and cultural heritage-	Not applicable				

### Annex 5: Risk Classification Form

After completing the E&S screening checklist, the LTO completes and certifies this certification form.

Project symbol: GCP/MOZ.117/GEF

Project title: Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods

**A. RISK CLASSIFICATION**

Low                     
  Moderate                     
  High

1. Record key risk impacts from the E&S Screening Checklist
  - A. The risks related to how the project impacts tenure rights are unknown
  - C. Impacts of expanded or intensified production systems on pest and pesticide management are unknown
  - B. Potential impact on migration, economic displacement are unknown
  - D. \_\_\_\_\_
  
2. Has the project site and surrounding area been visited by the compiler of this form?
 

Yes                     
  No

**B. STAKEHOLDER CONSULTATION/ ENGAGEMENT**

Identification of stakeholder(s)	Date	Participants	Location
National project launch workshop	17/2/2015	Representatives from key ministries, GEF national Focal point and development partners.	Maputo
Project site level and local community meetings	April and July 2015	Provincial governments and local communities	Several locations
Meetings with government and development partners	August 2015	Representatives from key ministries and development partners	Maputo

1. Summarize key risks and impacts identified from the stakeholder engagement
  - A. Proliferation of institutions dealing in NRM
  - C. Operation of multiple projects
  - B. Limited capacities to implement PES policy
  - D. \_\_\_\_\_
  
2. Have any of the stakeholders raised concerns about the project?  
 These details are provided in the section on Stakeholder Consultations

The LTO confirms the information above

Date : 03/03/2016

Signature:

### Annex 6: Gender analysis and strategies

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
<p>1.1.1 Completion of a legal study and proposal for revised text of the 20% Decree</p>	<ul style="list-style-type: none"> <li>- Women are important users and managers of forest resources</li> <li>- Women carry out most of the farming activity, especially for food crops and will thus be affected by any incentive scheme aiming to reduce shifting cultivation.</li> <li>- Women are under-represented in the Natural Resource Management Committees (NRMC) overseeing the spending of the 20% forest revenue share</li> </ul>	<ul style="list-style-type: none"> <li>- Legal texts on PES could, wittingly or unwittingly, impose an undue burden on women</li> <li>- NB practical implications on the ground for women of integrating PES in the national forestry and wildlife revenue sharing mechanism are considered under the activities in Component 3 below</li> </ul>	<ul style="list-style-type: none"> <li>- If the improved revenue sharing mechanism (including a new PES element) is successful in reducing deforestation and uncontrolled wildfires, this would benefit women, many of whom depend on forest produce both for subsistence and income generation</li> <li>- Apart from making payments under the 20% forest revenue sharing mechanism conditional on environmental performance, the project will also promote increased membership of women on the NRMC and make implementation of the mechanism more transparent to the whole community, which would benefit women especially</li> </ul>	<ul style="list-style-type: none"> <li>- Proposed legal text should explicitly recognize women's roles as forest resource users and managers and avoid putting undue burdens on women</li> <li>- Proposed legal text should explicitly refer to the gender composition of NRMC and NRMC leadership</li> <li>- Ensure gender expertise is brought to bear on drafting of legal texts</li> </ul>
<p>1.1.2 Organization of a national</p>	<ul style="list-style-type: none"> <li>- Women are important users and</li> </ul>	<ul style="list-style-type: none"> <li>- Legal texts on PES could,</li> </ul>	<ul style="list-style-type: none"> <li>- See 1.1.1 above</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure participation of gender</li> </ul>

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
seminar to seek consensus on revised 20% Decree text	managers of forest resources - Women carry out most of the farming activity, especially for food crops and will thus be affected by any incentive scheme aiming to reduce shifting cultivation. - Women are currently under-represented in the leadership of the Natural Resource Management Committees (NRMC) overseeing the spending of the 20% forest revenue share	wittingly or unwittingly, impose an undue burden on women		experts in national seminar
1.2.1 Development of communication strategies for sectoral funds and revenue sharing mechanisms other than forestry	- There are gender issues in all the different sectors the project is trying to reach, and these issues are only partly overlapping among sectors; there is no cookie-cutter approach to gender issues	- Not taking gender issues into account in other sectors' revenue sharing mechanisms (including PES) could make them less relevant, and their implementation less effective	- Taking gender issues into account will lead to more relevant and effective integration of PES into revenue sharing mechanisms and sector funds' modus operandi	- The way gender issues affect PES strategies needs to be captured accurately in the specific communications strategies for the different sector funds and revenue sharing mechanisms
1.2.2 Conduct meetings, presentations and discussions with other sector funds and revenue sharing mechanisms interested in adopting PES rules	- There are gender issues in all the different sectors the project is trying to reach, and these issues are only partly overlapping among sectors; there is no cookie-cutter approach to gender issues	- Not taking gender issues into account in other sectors' PES schemes could make them less relevant, and their implementation less effective	- Taking gender issues into account will lead to more relevant and effective PES schemes in all sectors	- The way gender issues affect PES strategies needs to be covered adequately in the specific policy dialogues with the different sector funds and revenue sharing mechanisms

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
2.1.1 Completion of a RSM (including PES) implementation capacity needs assessment for government and NGO staff and NRMC members	- Government and NGO staff will need to be able to engage effectively with both men and women in including a functional PES element in existing government revenue sharing mechanisms. This issue will need to be included in the capacity needs assessment.	- An inability of government and NGO staff to engage effectively with women could hinder both the relevance and effectiveness of the planned PES element of the government revenue sharing mechanism (RSM) - Under-representation of women in leadership roles in NRMC may reduce the effectiveness of NRMC engagement in PES.	- Gender-sensitive accompaniment of PES integration into RSM by government and NGO staff could improve women's say in deciding on PES activities and on the spending of the revenues shared by government	- Ensure the involvement of adequate gender expertise in design and implementation of PES capacity building activities - In the case of the NRMC, given that the project will promote increasing the number of women in leadership roles, the capacity needs assessment will need to consider not just the actual NRMC leadership, but also potential future women leaders.
2.1.2 Elaboration and execution of PES training courses for government and NGO staff and NRMC members	- See 2.1.1 above	- See 2.1.1 above	- See 2.1.1 above	- See 2.1.1 above - Ensure that location and timing of capacity building activities allow women from local communities (existing and aspiring NRMC members) to participate
2.1.3 Implementation of PES training courses for government and NGO staff and NRMC members	- See 2.1.1 above -	- See 2.1.1 above -	- See 2.1.1 above -	- See 2.1.1 above -
2.2.1 Complete PES design capacity needs assessment for managers and	- Managers and overseers of sector funds and revenue sharing	- Non-inclusion of gender issues in PES mechanism	- Inclusion of gender issues in PES mechanism design	- Ensure the involvement of adequate gender expertise in

<b>Project activity</b>	<b>Gender considerations</b>	<b>Possible negative gender implications of PES</b>	<b>Potential positive gender implications of PES</b>	<b>Strategies for optimizing gender implications</b>
overseers of sector funds and revenue sharing mechanisms	mechanisms will need to be aware of how gender issues can be taken into account in the design of PES mechanisms	design can reduce its relevance and effectiveness - NB practical implications for women of PES activities on the ground are considered under the activities in Component 3 below	would help to identify suitable roles for both men and women in the implementation of the mechanism	design and implementation of PES capacity building activities for sector funds and revenue sharing mechanisms
2.2.2 Organize PES initiation workshop for managers and boards of sector funds and revenue sharing mechanisms held	- See 2.2.1 above	- See 2.2.1 above	- See 2.2.1 above	- See 2.2.1 above
2.2.3 Complete studies for interested sector funds to review organizational mandates and priorities for PES	- Women are important users and managers of natural resources other than forests for which PES mechanisms could be developed	- Non gender-sensitive organizational visions, mandates and priorities for PES could, wittingly or unwittingly, impose an undue burden on women - NB practical implications for women of PES activities on the ground are considered under the activities in Component 3 below	- Taking gender issues into account will lead to more relevant and effective PES schemes	- Proposed visions, mandates and priorities should explicitly recognize women's roles as natural resource users and managers and avoid putting undue burdens on women - Special attention should be paid to women's representation in any organizational structures created for PES implementation - Ensure gender expertise is brought to bear on drafting of organizational visions, mandates and priorities
2.3.1 Identify other land use actors at Provincial and District level	- No particular gender issues	- No particular gender issues	- No particular gender issues	- None

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
2.3.2 Support RSM and PES discussion in the existing Provincial and District level multi-sectoral fora	-	-	-	-
2.3.3 Organize regular information exchange and coordination meetings with other land use actors at Provincial and District level	-	-	-	-
3.1.1 Guidelines for improved functioning of NRMCs drafted based on lessons learned from CBNRM initiatives in Mozambique and elsewhere	<ul style="list-style-type: none"> <li>- Women are currently under-represented in the Natural Resource Management Committees (NRMC) overseeing the spending of the 20% forest revenue share</li> <li>- Existing modus operandi of NRMC may make it harder for women to participate (e.g. location, time of day)</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of participation of women in NRMC could lead to skewed investment of the proceeds of the 20% revenue share, benefiting mainly men</li> <li>- Promoting women's participation in NRMC without reviewing the latter's modus operandi may put undue pressure on those women that do adopt NRMC leadership roles</li> </ul>	<ul style="list-style-type: none"> <li>- Effective participation of women could lead to sharper identification of pressures on forest resources and measures to address these</li> <li>- Effective participation of women could lead to better investment decisions</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure the involvement of adequate gender expertise in drafting of the guidelines</li> <li>- Ensure that guidelines emphasize the need for NRMC modus operandi to allow for effective participation of women</li> </ul>
3.1.2 Hold a seminar to discuss and modify draft guidelines for improved functioning of Natural Resource Management (NRM) Committees	- See 3.1.1 above	- See 3.1.1 above	- See 3.1.1 above	<ul style="list-style-type: none"> <li>- See 3.1.1 above</li> <li>- Ensure the involvement of adequate gender expertise in holding of the seminar</li> </ul>
3.1.3 Reinforce NRMC committees,	-	-	-	-

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
build elementary organizational structure and capacity development programs				
3.2.1 Conclusion of letters of agreement with 6 NGOs to initiate and maintain PES activities with 26 NRMCs	<ul style="list-style-type: none"> <li>- The 6 NGOs to be contracted for field activities under the project have a key role to play in ensuring that gender issues are taken into account in the testing of PES in Zambézia Province</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient attention to gender issues by implementing NGOs could undermine the effectiveness of the PES test</li> <li>- On the other hand, the way the project addresses gender issues should not be so complex as to prevent successful replication in the future</li> </ul>	<ul style="list-style-type: none"> <li>- Gender-sensitive implementation of the PES test would generate valuable lessons learned for national replication</li> </ul>	<ul style="list-style-type: none"> <li>- FAO will require NGOs signing LoAs to field sufficient gender expertise</li> <li>- FAO will require NGOs signing LoAs to keep gender-differentiated records of local community participation in project activities</li> <li>- FAO will require NGOs signing LoAs to collect other gender-differentiated data as needed for the assessment of indicators in the project Results Framework</li> </ul>
3.2.2 NGO support to local communities to initiate and maintain PES activities with 26 NRM Committees	<ul style="list-style-type: none"> <li>- Women are important users and managers of forest resources</li> <li>- Women carry out most of the farming activity, especially for food crops and will thus be affected by any incentive scheme aiming to reduce shifting cultivation.</li> </ul>	<ul style="list-style-type: none"> <li>- Agricultural technologies that will be introduced to reduce shifting cultivation could increase the workload of women, e.g. increased need for weed and pest control for more intensive farming, composting etc.</li> <li>- Unless specific labour-saving technologies for women are</li> </ul>	<ul style="list-style-type: none"> <li>- Certain so-called “Conservation agriculture” technologies also have the potential to increase yields while reducing women’s labour requirements, e.g. the use of cover crops, zero or low tillage<sup>83</sup></li> <li>- If the PES mechanism is</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure that implementing NGOs have the capacity to identify potential impact of PES activities on women and to offer practical and affordable alternatives</li> <li>- Ensure that implementing NGOs involve women in the design and implementation of the PSA activities in order to</li> </ul>

<sup>83</sup> For more information on the experience with conservation agriculture in Zambézia Province (11 pilots) and in Mozambique more generally, see <http://www.iiam.gov.mz/>

Project activity	Gender considerations	Possible negative gender implications of PES	Potential positive gender implications of PES	Strategies for optimizing gender implications
		<p>introduced (e.g. natural pesticides that can be produced and applied locally rather than laborious manual control; cassava and maize mills rather than manual processing) this could reduce women's well-being and/or increase their working hours</p> <ul style="list-style-type: none"> <li>- A reduction in deforestation obtained by women's endeavours could well be annihilated by negative impacts of men's activities (e.g. continuation of setting uncontrolled vegetation fires). In a community-level, performance-based PES mechanism, this would mean the women's efforts would go unrewarded</li> </ul>	<p>successful in reducing deforestation and uncontrolled wildfires, this would benefit women, many of whom depend on forest produce both for subsistence and income generation</p> <ul style="list-style-type: none"> <li>- Apart from making payments under the 20% forest revenue sharing mechanism conditional on environmental performance, the project will also promote increased membership of women on the NRMC and make implementation of the mechanism more transparent to the whole community, which would benefit women especially</li> </ul>	<p>empower them and ensure that the activities are compatible with their priorities and workloads</p> <ul style="list-style-type: none"> <li>- Ensure that implementing NGOs focus on endorsement and internalization of PES goals by the whole community, and that adequate sanctions are in place for individuals threatening the achievement of these goals.</li> </ul>
<p>3.3.1 Conduct Seminar series in Zambézia Province to share lessons learned from PES implementation experience gained with MITADER and local authorities</p>	<ul style="list-style-type: none"> <li>- Lessons learned should reflect different roles played in PES implementation by men and women</li> <li>- Lessons learned should demonstrate that women can successfully occupy NRMC leadership roles if the NRMC</li> </ul>	<ul style="list-style-type: none"> <li>- See 3.2.2 above</li> </ul>	<ul style="list-style-type: none"> <li>- See 3.2.2 above</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure that adequate gender expertise is brought to bear on identification of lessons learned, development of seminar content and facilitation of the seminars</li> </ul>

<b>Project activity</b>	<b>Gender considerations</b>	<b>Possible negative gender implications of PES</b>	<b>Potential positive gender implications of PES</b>	<b>Strategies for optimizing gender implications</b>
	modus operandi allows it			
3.3.2 Organize exchange visits and experience sharing among local communities	-	-	-	-
3.4.1 Development of a national replication plan for modified forest and wildlife revenue sharing mechanism that is conditional on environmental performance developed	- None	- None	- None	- None
3.4.2 Organize a national seminar to discuss the draft national replication plan	-	-	-	-

## **ANNEX 7: TERMS OF REFERENCE (ToRs) OF KEY STAFF**

This Annex provides Terms of reference for the following:

### PMU Staff

- International CTA;
- M&E expert;
- Operations and Administration Officer;
- Drivers; and
- Provincial Project Facilitator.

### Nationally recruited staff and consultants:

- PES and revenue sharing expert;
- National communications officer;
- National Human Resources Management consultant;
- National consultant for technical capacity assessment;
- National management consultant;
- National consultant - Legal expert

### Internationally recruited staff and consultants:

- International consultant to train a critical mass of master trainers;
- International consultant on PES;
- Evaluators

## CHIEF TECHNICAL ADVISOR (CTA)

### Duties and Responsibilities

FAO Mozambique assists the government to develop policies, programmes and projects to address the root causes of hunger and malnutrition; to help the government develop the agricultural, fisheries and forestry sectors and to use the environmental and natural resources in a sustainable manner. FAO participates in the development and implementation of field projects in the sectors of food security, agriculture and rural development.

The project, “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” was approved by the Global Environmental Facility (GEF) and will be implemented by FAO. The overall goal of the projects is to *“promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.”*

The Chief Technical Advisor (CTA) will be part of the National Coordination Unit. He/she will report directly to the Budget Holder (BH) and will work under the technical supervision of the Lead Technical Officer (LTO) and the relevant Division in FAO Head Quarters. He/she will work closely with and strengthen the capacity of the government focal point, the Ministry of Land, Environment and Rural Development (MITADER).

The CTA will be responsible for the overall project management and reporting, and will also have the primary responsibility for all technical aspects of the project, in particular with emphasis/focus in preparing the ground for the adoption of a common set of rules for investment in and payment for the provision of ecosystem services (PES) by a variety of sectoral funds and revenue sharing mechanisms (including forestry, agriculture, mining, fisheries, infrastructure), for the first three years of the project implementation. His/her responsibilities will be as follows:

1. Plan, organize and ensure the general coherence of the projects’ activities implemented under the four components
2. Serve as the main contact point between project partners, the BH and LTO/LTU in FAO.
3. Provide technical support and strengthen capacities of government partners involved, and ensure that the latest and best international practices and approaches are incorporated in the planning and implementation of project activities.
4. Ensure that the project’s monitoring system is set-up and operational.

In particular, he/she will:

- Contribute directly to all technical activities, notably:
  - Negotiations with partners and development of joint work programmes and budgets.
  - Analyze training materials and technical options to build awareness about, and implementation capacity for, Payment for Ecosystem Services (PES).
  - Identify stakeholders other than Forestry for PES implementation.
- Ensure that all activities are implemented in line with the project’s results-based logical framework, work plan and approved budget.
- Liaise with all stakeholders, government, and donors in the preparation and approval of the annual work plans and budgets, and ensure its timely approval by the Project Steering Committee (PSC).
- Focus on activities related to; a) raising awareness, and b) capacity building of all stakeholders using training and communication materials, and promoting participation of stakeholders at all levels.
- Design and supervise the project’s results’ based monitoring system according to FAO and GEF requirements.
- Ensure the real-time monitoring of project progress, lead the preparation of semi-annual Project Progress Reports (in close cooperation with the BH and the LTO), contribute to the annual Project Implementation Review (in close cooperation with the LTO), and alert the BH and the LTO of potential problems that could result in delays during implementation.
- Provide technical advice and assistance to the mid-term and final evaluations of the project.

- Prepare the TOR for consultants, assist in the identification of suitable candidates and supervise their activities.
- Coordinate activities of project's experts, consultants, and contractors, and provide technical advice as required.
- Provide support in the preparation of contracts, letters of agreement with project partners in close collaboration with the BH and LTO.
- Lead the organization of all training activities, including a programme with "on-the-job" training and courses for Government staff, NGOs and community-level Natural Resource Management Committees in Zambezi, focused on Payment for Ecosystem Services implementation.
- Support all aspects of day-to-day project execution.
- Perform other related duties as required.

**Minimum Requirements:**

- Advanced University Degree in Forestry, Environment, Natural resource economics or a closely related field.
- Seven years of relevant experience in Payment of ecosystem services and/or other revenue sharing mechanisms.
- Seven years of proven experience in project management with results-based management approach;
- Demonstrated results in African rural production systems through field, academic and policy results
- Excellent oral and written communication skills in English, working knowledge of Portuguese or Spanish is essential.

**Selection Criteria:**

- Extent and relevance of experience in managing and implementing projects that involve participatory natural resource management and extension approaches (for example Community-Based Natural Resource Management) in a rural African context.
- Extent and relevance of experience in multilateral and international agencies.
- Extent and relevance of experience in managing projects using a results-based management approach.
- Experience in integrated landscape management approaches is an asset.



**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> MONITORING AND EVALUATION EXPERT (M&EE)	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo, Mozambique	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 60 months
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the Monitoring and Evaluation Expert (M&EE) is part of the Project Management Unit (PMU) and his/her main mission will be to ensure the smooth running of the project monitoring and evaluation (M&E) system.

The M&E System will be used by the M&E Expert to coordinate and conduct M&E related activities including: i) conducting regularly field M&E visits to project sites; ii) ensure Payment for Ecosystem Services (PES) monitoring activities; iii) monitoring monthly progresses in achieving project outputs and outcome indicators; iv) providing technical and operational guidance to the staff of participating institutions undertaking monitoring activities; and v) proposing eventual shifts in project implementation strategies if the project is not performing as planned.

In particular, the M&E Expert will perform the following activities:

- Design the M&E System under the guidance of the CTA and in consultation with executing partners and key stakeholders.
- Lead the definition of outcome and impact indicators, maintaining coherence and feasibility with the logical framework, the GEF targets and the project targets.
- Lead the definition of indicators for each project component, maintaining coherence among them and ensuring smooth integration with the Payment of Ecosystem Services and other revenue sharing mechanisms.
- Ensure monitoring of project impacts in terms of gender, including gender-differentiated indicators.
- Define the methodology for the survey, delivery and processing of information necessary to feed the indicators, considering the use of information and communication technologies.
- Support monitoring and evaluation missions such as mid-term evaluation/review, field trips and end term evaluations.
- Support the compilation of the six monthly Project Progress Report (PPR) and yearly Project Implementation Review

(PIR).

- Design and define tools and guidelines for systematization and processing of information obtained from project execution.
- Support the process of baseline feeding in each of the project components.
- Provide support to the project personnel/staff involved in routine day to day M&E activities of the project.
- In coordination with the PMU, support the development of mechanisms and methodologies for systematic data collection and recording in support of outcome and output indicators monitoring and evaluation.

### Qualifications

- Higher degree related to rural development;
- Experience in establishing project results and progress monitoring systems;
- Demonstrated M&E field experience; skilled in collecting, manipulating, synthesizing and analyzing qualitative and quantitative data
- At least three years' experience working with local communities in the agricultural sector in Mozambique;
- Demonstrated previous experience of working with and/or monitoring the farmer field school approach to extension or with similar approaches;
- Excellent analytical and computer skills;
- Familiarity with standard sampling techniques and Participatory Rural Appraisal (PRA) methodologies;
- Previous experience working with international partners on related issues; and
- Portuguese language skills preferential, English language skills an asset.

### KEY PERFORMANCE INDICATORS

Expected Outputs:	Required Completion Date:
<ul style="list-style-type: none"><li>- Six-Monthly project output and outcome indicator progress reports</li><li>- Regular field visits to project sites conducted</li><li>- PMU and other stakeholders activities reports</li><li>- Project activities implemented in coordination with local partners, government and Project M&amp;E system is setup</li><li>- Regular monitoring of the involvement of partner institutions</li><li>- Monthly project output and outcome indicator progress report</li><li>- Compilation and provision of data for preparation of the official GEF monitoring cycle document (i.e. Project Implementation Review and Project Progress Reports)</li><li>- Inform the NCU on proposed corrective actions/changes in project implementation strategies</li></ul>	When appropriate

## **OPERATIONS AND ADMINISTRATION OFFICER**

### 1. Scope

This position is full-time over the entire duration of the Project.

Under the overall supervision of: FAO BH, Reporting to: CTA Nationally recruited.

### 2. Tasks

Under the overall supervision of the FAO BH and under day-to-day supervision of the CTA, the Operations and Administrative Officer will have the following responsibilities and functions:

- Ensure smooth and timely implementation of project activities in support of the results-based work plan, through operational and administrative procedures according to FAO rules and standards;
- Coordinate the project operational arrangements through contractual agreements with key project partners;
- Arrange the operations needed for signing and executing Letters of Agreement (LoA) with relevant project partners;
- Maintain inter-departmental linkages with FAO units for donor liaison, Finance, Human Resources, and other units as required;
- Day-to-day management of the project budget, including the monitoring of cash availability, budget preparation and budget revisions to be reviewed by the CTA;
- Ensure the accurate recording of all data relevant for operational, financial and results-based monitoring;
- Ensure that relevant reports on expenditures, forecasts, progress against work plans, project closure, are prepared and submitted in accordance with FAO and GEF defined procedures and reporting formats, schedules and communications channels, as required;
- Execute accurate and timely actions on all operational requirements for personnel-related matters, equipment and material procurement, and field disbursements;
- Participate and represent the project in meetings with project partners and the Project Steering Committee, as required;
- Undertake missions to monitor the outputs-based budget, and to resolve outstanding operational problems, as appropriate;
- Be responsible for results achieved within her/his area of work and ensure issues affecting project delivery and success are brought to the attention of higher level authorities through the CTA or BH in a timely manner;
- In consultation with FAO Evaluation Office, the LTU, and FAO-GEF Coordination Unit, support the organization of the mid-term and final evaluations, and provide inputs regarding project budgetary matters;
- Provide inputs and maintain the FPMIS systems up-to-date; and
- Undertake any other duties as required.

### 3. Qualifications

- University Degree in Economics, Business Administration, or related fields;
- Five years of experience in project operation and management related to natural resources management, including field experience in developing countries;
- Proven capacity to work and establish working relationships with government and non-government representatives;
- Portuguese language skills essential, English language skills desirable; and
- Knowledge of FAO's (or comparable) project management systems.

## **DRIVER**

### 1. Scope

Two drivers for the entire project, part time.

Under the supervision of: CTA

Reporting to: CTA

Nationally recruited

### 2. Context

Standard FAO driver TOR

### 3. Tasks

The driver will be responsible to perform the following tasks and duties:

- Maintain the project vehicles in clean and good conditions;
- Be responsible for the day by day maintenance for the vehicles;
- Daily update of vehicle log books;
- Transport staff and/or equipment within the duty station and to/from other locations; and
- Meet official personnel at the airport and facilitate immigration and customs formalities as required; and
- Other logistics and transport tasks as required by the needs of the project

### 4. Qualifications

At least three years' experience as driver.



**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> PROVINCIAL PROJECT FACILITATOR (PPF)	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Quelimane (Zambézia Province) with field visits to districts and communities	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 60 months
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the Provincial Project Facilitator (PPF) is part of the National Coordination Unit (NCU) and his/her main mission will be to ensure the activities in the provinces are technically of high quality, are firmly anchored into the local sustainable development processes, and are firmly contributing to the overall project objective.

In particular, the PPF will perform the following activities:

- Provide advice on all activities to take place at the provincial, district and local level;
- Ensure full coordination with local government agencies and all similar activities taking place in the province, particularly in the districts assisted by the project;
- Organize the planning phase and promote the development / implementation of plans and arrangements related to Community-Based Natural Resources Management (CBNRM), and in PES implementation in the districts assisted by the project;
- Support and organize capacity building programs for the emergence of new CBNRM Committee members and to strengthen existing organizations and CBNRM groups;
- Where necessary, support the strengthening of CBNRM related activities in the framework of climate mitigation and adaptation strategies;
- Where possible, create linkages between project activities and other activities being implemented, financed by government or development partners, especially those included in the project’s GEF baseline;
- Coordinate the activities between the CBNRM committees, other project relevant implementing partners including the Research structures;
- Provide technical support to government agencies at the local level;

- Organize and conduct all the stages of the process leading to initiate and maintain PES extension activities in the targeted sites;
- Support service providers for the establishment of PES mechanisms; and
- Support and technically supervise project and other activities as required.

**Qualifications**

- Higher degree related to forestry, agriculture, rural development or related field;
- At least five years' experience working with local communities in rural development in Mozambique;
- Relevant working experience with CBRNM approaches;
- Demonstrated and full knowledge of forestry, agricultural and rangelands issues in the province;
- Knowledge of concerned local languages.
- Previous experience working with international partners and national government agencies/programmes; and
- Portuguese language skills preferential, English language skills an asset.

**KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
<ul style="list-style-type: none"> <li>- Conducting regularly field technical assistance to project sites and ensure Field level activities are implemented in coordination with local partners and government and institutions;</li> <li>- Report progresses in achieving project outputs and outcome indicators monthly;</li> <li>- Provide data for the preparation of the official GEF monitoring and evaluation report document (i.e. Project Implementation Review, Project Progress Reports):</li> <li>- Inform the PMU and propose eventual shifts in project implementation strategies if the project is not performing as planned in the Province.</li> </ul>	<p style="text-align: center;">When appropriate</p>



**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National PES and Revenue Sharing Expert	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo with field visits to districts (20 days in Zambézia)	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 40 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA) , the National PES and Revenue Sharing Expert will:

1. Tasks

- Assist the international PES expert in conducting a study to develop recommendations for PES rules implementation in Mozambique and in the Zambézia Province;
- Identify entry points for integrating PES, and assess the interest of other sector funds and revenue sharing mechanism;
- Review and revise training programmes for Sector Funds and local NGOs;
- Ensure that updated best practices are transferred in a simple and concise manner into training material and training activities;
- Conduct “on-the-job” and training courses for Government staff, NGOs and community-level Natural Resource Management Committees in Zambezi Payment for Ecosystem Services implementation;
- Facilitate a high-level workshop with all interested sector funds, which will include high-ranking officials from the sector ministries as well as the executives and staff of the sector funds and revenue sharing mechanisms;
- Undertake field visits and provide examples on how revenue sharing mechanisms could drive PES practices.

2. Qualifications and Selection criteria

- Higher degree related to natural resource management, forestry, agriculture or climate change science;
- At least five years working on forestry or natural resource management related issues in Mozambique;
- Experience working with local communities in the natural resources’ revenues sharing in Mozambique;

- Previous experience working with international partners on related issues;
- Demonstrated commitment to participatory sustainable development techniques; and
- Portuguese essential, English language skills preferential.

### **KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
<ul style="list-style-type: none"> <li>- Conducting regularly field technical assistance to project sites and ensure Field level activities are implemented in coordination with local partners and government and institutions;</li> <li>- Report progresses in achieving project outputs and outcome indicators monthly;</li> <li>- Provide data for the preparation of the recommendations for PES rules implementation in Mozambique and in the Zambézia Province</li> </ul>	<p>When appropriate as per the Project 's Work Plan</p>



**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National Communications Officer	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 20 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA) , the National Communication Officer be responsible, but not limited, to perform the following tasks and duties :

- Prepare communication strategies for sectoral funds and revenue sharing mechanisms and;
- Prepare communication for visibility building strategy

Qualifications

- Higher degree in communication;
- At least two year experience in communication and publication;
- Familiar with rural development, agriculture and climate-change related challenges in Mozambique
- Fluency in Portuguese essential, English highly desirable

**KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
<ul style="list-style-type: none"> <li>- communication strategies for sectoral funds and revenue sharing mechanisms</li> <li>- Publications for dissemination</li> </ul>	When appropriate as per the Project ´s Work Plan





**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National Human Resources Management Consultant	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 30 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the National Human Resources Management Consult will be responsible, but not limited, to perform the following tasks and duties :

- Assist international Master of Trainers in conducting a PES implementation capacity needs assessment of key stakeholders;
- Support international Master of Trainers in the design of different sectors programs

Qualifications

- An advanced degree in capacity development;
- At least two year proven experience in the field;
- Familiar with rural development, forestry agriculture and related fields
- Fluency in English

**KEY PERFORMANCE INDICATORS**

<b>Expected Outputs:</b>	<b>Required Completion Date:</b>
- Individual training and institutional capacity building activities developed	When appropriate as per the Project’s Work Plan



**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National Consultant for Technical Capacity Assessment	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo with visits to the field	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 30 days
<b>Reports to: Name:</b> <i>Tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the National Consultant for Technical Capacity Assessment will be responsible, but not limited, to perform the following tasks and duties :

- Assist the international PES expert in conducting a capacity needs assessment for key government, NGO staff and staff from other Sector Funds;
- Support the design of a curriculum for PES Training

Qualifications

- An advanced degree in human resources management;
- At least two year experience in human resources development;
- Ability to organize and facilitate workshops and meetings;
- Familiar with rural development, forestry agriculture and related fields
- Fluency in Portuguese essential, English desirable

**KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
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<ul style="list-style-type: none"> <li>- Mission reports</li> <li>- Training and training needs assessment conducted</li> <li>- Training materials produced</li> </ul>	When appropriate as per the Project 's Work Plan
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**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National Management Consultant	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 30 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the National Management Consultant will be responsible, but not limited, to perform the following tasks and duties :

- Conduct studies to review organizational visions, mandates and priorities for PES of each of the sector funds and revenue sharing mechanisms

Qualifications

- An advanced degree in business management and administration;
- At least two year experience in the field;
- Familiar with rural development, forestry, agriculture and related fields
- Fluency in Portuguese essential, knowledge of English desirable

**KEY PERFORMANCE INDICATORS**

<b>Expected Outputs:</b>	<b>Required Completion Date:</b>
<ul style="list-style-type: none"> <li>- Individual sectors programming developed</li> </ul>	When appropriate as per the Project 's Work Plan





**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> National Consultant Legal Expert	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 20 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the National Consultant Legal Expert will be responsible, but not limited, to perform the following tasks and duties :

- Conduct a legal study and proposal for revised text of the 20% Decree;
- Organize regular meetings to facilitate analysis and discussions;
- Provide technical expertise to support critical subject matters;
- Work with other project specialists to support the setting up of the new decree that would institutionalize the Forestry PES mechanism;

Qualifications

- An advanced degree in law or related fields;
- At least five year experience in legal practice, with substantive experience of legislative development and participatory policy making process;
- Familiarity with natural resources policy in a cross-sectoral setting, and with customary law issues is highly desirable.
- Fluency in English

**KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
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<ul style="list-style-type: none"><li>- Consultation meetings' reports;</li><li>- Proposal for revised text of the 20% Decree;</li><li>- The new decree that would institutionalize the Forestry PES mechanism proposed</li></ul>	When appropriate as per the Project's Work Plan
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**Food and Agriculture organization of the United Nations**

**Terms of Reference for Consultant /PSA**

**Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs**

<b>Name:</b>	
<b>Job Title:</b> International Consultant Master of Trainers	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo with travels to the field	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 30 days
<b>Reports to: Name:</b> <i>tbc</i>	<b>Title:</b> <i>CTA</i>

**GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED**

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the International Consultant Master of Trainers will be responsible, but not limited, to perform the following tasks and duties :

- Conduct a PES implementation capacity needs assessment of key project stakeholders
- Design of different sector programs;
- Conduct training of master trainers in Maputo and Zambézia Province

Qualifications

- An advanced degree in business management and administration;
- At least five year experience in practice, with substantive experience of PES development and participatory process;
- Familiar with natural resources revenue sharing in a cross-sectoral setting, and local level capacity development is highly desirable.
- Fluency in English

**KEY PERFORMANCE INDICATORS**

Expected Outputs:	Required Completion Date:
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- Mission reports;
- PES implementation capacity needs assessment of key stakeholders;
- Training of master trainers conducted in Maputo and Zambézia Province

When appropriate as per the Project's Work Plan



## Food and Agriculture organization of the United Nations

### Terms of Reference for Consultant /PSA

Minimum number of years of relevant experience required: 1yr  5yrs  12+yrs

<b>Name:</b>	
<b>Job Title:</b> International consultant on PES	
<b>Division/Department:</b> FRMOZ	
<b>Programme/Project Number:</b> GCP /MOZ/117/GFF	
<b>Location:</b> Maputo with travels to the field	
<b>Expected Start Date of Assignment:</b>	<b>Duration:</b> 6 days
<b>Reports to: Name:</b> tbc	<b>Title:</b> CTA

### GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVES TO BE ACHIEVED

The GEF-funded, FAO-implemented project “Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods” has the overall goal to promote biodiversity conservation and climate change mitigation in miombo forest ecosystems through the development of a payment for ecosystem services (PES) scheme that supports sustainable use and conservation of forests and wildlife and improves local peoples’ livelihoods.

Under the overall supervision of the FAO Representative in Mozambique (Budget Holder), and the technical supervision of the project’s Chief Technical Advisor (CTA), the International consultant on PES, but not limited, to perform the following tasks and duties :

- Conduct a study to develop recommendations for PES rules implementation in Mozambique and in the Zambézia Province;
- Facilitate a workshop and identify entry points for integrating PES,

Undertake field visits and provide examples on how revenue sharing mechanisms could

#### Qualifications

- Master's degree in forestry, ecology, agronomy, environmental studies or closely related fields. Technical and practical knowledge of the Payment of Ecosystem Services on natural resources is critical.
- A minimum of 7 years of progressive and relevant experience in the field of operational PES.
- Experience in PES and/or revenue sharing activities for forestry, agriculture and other natural resources, particularly in developing countries.
- Excellent understanding of the linkages among forest, wildlife, agriculture, climate variability and climate change

mitigation and adaptation in rural farming communities.

- Past working experience in Southern Africa would be an asset.
- Excellent knowledge of English including writing and communication skills.
- Good knowledge of Portuguese, spoken and written

## KEY PERFORMANCE INDICATORS

Expected Outputs:	Required Completion Date:
<ul style="list-style-type: none"><li>- Mission's report;</li><li>- Recommendations for PES rules implementation in Mozambique and in the Zambézia Province developed;</li><li>- Workshop conducted;</li><li>- Entry points for integrating PES identified</li></ul>	When appropriate as per the Project's Work Plan

**EXTERNAL EVALUATION TEAM**  
**(In case of mid-term evaluation and final evaluation)**

1. Scope

Under the supervision of: FAO Office of Evaluation

Reporting to: OED, FAO Office of Evaluation

Internationally recruited.

2. Tasks

Under the ultimate responsibility of FAO Office of Evaluation, in accordance with FAO evaluation procedures and taking into consideration evolving guidance from the GEF Evaluation Office and in close consultation with the Project Coordinator, FAO budget holder (FAO Mozambique), FAO Lead Technical Unit the external evaluation team will three months prior to the terminal review meeting of the project partners conduct an independent final evaluation. The final evaluation will review project impact, analyze sustainability of results and whether the project has achieved its objectives and benchmarks. The evaluation will furthermore provide recommendations for follow-up actions.

The evaluation will, inter alia:

- Review the effectiveness, efficiency and timeliness of project implementation;
- Analyze effectiveness of implementation and partnership arrangements;
- Identify issues requiring decisions and remedial actions to insure sustainability of project outcomes and outputs;
- Identify lessons learned about project design, implementation and management;
- Highlight technical achievements and lessons learned; and
- Prepare a final evaluation report.

Some critical issues to be evaluated in the midterm and final evaluations will be:

- Progress in improving PES status and applicability;
- Functioning and effectiveness of the sectors' fund and of the inter-institutional coordination mechanism in developing and implementing integrated planning for PES;
- Level of capacities and involvement of local staff in terms of improved management effectiveness and land management plan implementation capability; and
- Level of involvement of local NGOs e CBNRM committees in the PES mechanisms models.

3. Qualification and Selection Criteria

- The team should include professionals specialized in forestry and/or sustainable natural resources management;
- demonstrated experience in project evaluation;
- 10 years of professional experience in the field.
- Previous working experience in the region
- Experience in project coordination with international bodies, will be especially valuable; and
- Fluency in English and Portuguese preferential.