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INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON

PROPOSED CREDIT FROM THE
INTERNATIONAL DEVELOPMENT ASSOCIATION (SDR 11.2M)
(US$15.0M EQUIVALENT),

PROPOSED LOAN FROM THE STRATEGIC CLIMATE FUND (US$13.2M)

AND A PROPOSED GRANT FROM
THE STRATEGIC CLIMATE FUND (US$8.8M)

TO THE

REPUBLIC OF MOZAMBIQUE

FOR THE

MOZAMBIQUE FOREST INVESTMENT PROJECT (MOZFIP)

FEBRUARY 10, 2017

Environment & Natural Resources Global Practice
AFRICA REGION

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 30, 2016)

Currency Unit	=	Mozambique New Meticais (MZN)
US$1	=	MZN70.7
US$1	=	SDR 0.743865

FISCAL YEAR
January 1 - December 31

ABBREVIATIONS AND ACRONYMS

ANAC	National Administration of Protected Areas *(Administração Nacional das Áreas de Conservação)*
AQUA	National Agency for Environment Quality Control (*Agencia da Qualidade Ambiental)*
AT	Administrative Tribunal
CBO	Community-Based Organization
CDAP	Community Development Action Plan
CGRN	Natural Resources Management Committee *(Comité de Gestão de Recursos Naturais)*
CPF	Country Partnership Framework
DGM	Dedicated Grant Mechanism
DINAT	National Directorate for Land (*Direcção Nacional de Terras)*
DINOTER	National Directorate of Land-Use Planning and Resettlement *(Direcção Nacional de Ordenamento Territorial)*
DINAF	National Directorate of Forests *(Direcção Nacional de Florestas)*
DNAS	National Directorate for Agriculture and Silviculture *(Direcção Nacional de Agricultura e Silvicultura)*
DNEA	*(*National Directorate for Agricultural Extension *(Direcção Nacional de Extensão Agrária)*
DPTADER	Provincial Directorate of Land, Environment and Rural Development *(Direcção Provincial de Terra, Ambiente e Desenvolvimento Rural)*
DUAT	Land Use and Benefit Right *(Direito de Uso e Aproveitamento da Terra)*
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EX-ACT	Ex Ante Carbon-Balance Tool
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FIP	Forest Investment Program
FNDS	National Sustainable Development Fund *(Fundo Nacional de Desenvolvimento Sustentável)*
FUNAE	National Energy Fund
GDP	Gross Domestic Product

GHG	Greenhouse Gas
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFC	International Finance Corporation
ILFM	Integrated Landscape and Forests Management
INDC	Intended Nationally Determined Contribution
LCU	Landscape Coordination Unit
LTR	Land Tenure Regularization
M&E	Monitoring and Evaluation
MASA	Ministry of Agriculture and Food Security
MDB	Multilateral Development Bank
MDTF	Multi-Donor Trust Fund
MIREME	Ministry of Mineral Resources and Energy
MIS	Management Information System
MITADER	Ministry of Land, Environment and Rural Development
MozBio	Conservation Areas for Biodiversity and Development Project
MozDGM	Mozambique Dedicated Grant Mechanism for Local Communities
MozFIP	Mozambique Forest Investment Project
MRV	Monitoring, Reporting and Verification
MSLF	Multi-stakeholder Landscape Forum
NEA	National Executing Agency
NGO	Nongovernmental Organization
NLUP	National Land-Use Plan
NPV	Net Present Value
NRM	Natural Resources Management
NSC	National Steering Committee
PDO	Project Development Objective
PIM	Project Implementation Manual
PQG	Five-Year Government Plan *(Plano Quinquenal do Governo)*
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SAP	Strategic Action Plan
SDAE	District Service of Economic Activity (*Serviço Distrital de Actividade Económa)*
SDG	Sustainable Development Goal
SDPI	District Service for Infrastructure and Planning *(Serviço Distrital de Planeamento e Infra-Estrutura)*
SESA	Strategic Environmental and Social Assessment
SME	Small and Medium Enterprise
SoP	Series of Projects
SPF	Provincial Forest Services (*Serviços Provinciais Florestais)*
SPGC	Provincial Services for Geography and Cadastre – Provincial land management and administration *(Serviço Provincial de Geografia e Cadastro)*
UGFI	International Funds Management Unit *(Unidade de Gestão de Fundos Internacionais)*
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WBG	World Bank Group

Regional Vice President:	Makhtar Diop
Country Director:	Mark R. Lundell
Senior Global Practice Director:	Karin Kemper
Practice Manager:	Magda Lovei
Task Team Leader(s):	Andre Rodrigues de Aquino, Werner L. Kornexl

BASIC INFORMATION

Is this a regionally tagged project?	Country(ies)	Lending Instrument
No		Investment Project Financing

[ ] Situations of Urgent Need of Assistance or Capacity Constraints

[ ] Financial Intermediaries

[✓] Series of Projects

Approval Date	Closing Date	Environmental Assessment Category
07-Mar-2017	30-Jun-2022	B - Partial Assessment

Bank/IFC Collaboration
No

Proposed Development Objective(s)

The Project Development Objective is to improve the practices and enabling environment for forest and land management in Targeted Landscapes.

Components

Component Name	Cost (US$, millions)
Promoting Integrated Landscape Management	19.10
Strengthening the Enabling Conditions for Sustainable Forest Management	20.20
Project Coordination and Management	7.70

Organizations

Borrower :	Ministry of Economy and Finance
Implementing Agency :	Ministry of Land, Environment and Rural Development

[ ] Counterpart Funding	[ ] IBRD	[✓] IDA Credit [ ] Crisis Response Window [ ] Regional Projects Window	[ ] IDA Grant [ ] Crisis Response Window [ ] Regional Projects Window	[✓] Trust Funds	[ ] Parallel Financing

Total Project Cost:	Total Financing:	Financing Gap:
47.00	47.00	0.00
	Of Which Bank Financing (IBRD/IDA):	
	15.00	

Financing (in US$, millions)

Financing Source	Amount
Strategic Climate Fund Credit	13.20
Strategic Climate Fund Grant	8.80
IDA-59590	15.00
Integrated Landscape & Forest Management MDTF	10.00
Total	**47.00**

Expected Disbursements (in US$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022
Annual	1.00	10.00	11.00	8.00	9.00	8.00
Cumulative	1.00	11.00	22.00	30.00	39.00	47.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment & Natural Resources

Contributing Practice Areas

Agriculture
Climate Change
Social, Urban, Rural and Resilience Global Practice

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial

8. Stakeholders	Substantial
9. Other	Substantial
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36	✓	
Pest Management OP 4.09	✓	
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37	✓	
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

The Recipient shall maintain a Steering Committee at all times during Project implementation, with a structure, functions and responsibilities acceptable to the Association, which shall be responsible for overall Project oversight and guidance. The Steering Committee shall be chaired by the Recipient's Ministry of Land, Environment and Rural Development (MITADER) and shall include as members representatives from FNDS, DINAF, AQUA, UEM, MASA, MIREME as well as representatives of the private sector, NGOs, development partners, and a

representative of the steering committee of the DGM. The UGFI shall serve as the Steering Committee's Secretariat. Financing Agreement, Schedule 2, Section I, A, 2.

Sections and Description

The Recipient shall maintain the UGFI within the FNDS at MITADER, with a structure, equipment, functions and responsibilities acceptable to the Association, including, inter alia, the responsibility of the UGFI to assist the Recipient in the day-to-day management of all Projects activities, including technical supervision and coordination, overall Project planning, quality oversight, communication, reporting, procurement, financial management, safeguards management, and monitoring of Project activities.

The Recipient shall ensure that the UGFI is headed by a Project coordinator and staffed, at a minimum, with a financial management specialist, a procurement specialist, an accountant, a safeguards specialist, a monitoring and evaluation officer, a communications specialist and technical specialists for coordination of the following areas of expertise: land, forestry, agriculture, biomass energy, community development, and administrative staff, all hired with terms of reference, through competitive processes, in numbers and with qualifications and experience acceptable to the Association. Financing Agreement, Schedule 2, Section I, A, 3.

Sections and Description

The Recipient shall maintain LCUs in each Province, with structure, equipment, functions and responsibilities acceptable to the Association, including inter alia, the responsibility of each LCU to coordinate and monitor Project implementation at the provincial level. The Recipient shall ensure that each LCU is headed by a Provincial Project field coordinator and staffed with technical specialists to carry out their responsibilities under the Project at the provincial level. Financing Agreement, Schedule 2, Section I, A, 4.

Sections and Description

The Recipient shall maintain its cooperation with Multi-Stakeholder Landscape Forums (MSLFs) in each Province with the responsibility to coordinate and integrate landscape management at the provincial level. Financing Agreement, Schedule 2, Section I, A, 5.

Sections and Description

The Recipient shall, not later than six months after the Effective Date, develop and adopt, in form and substance acceptable to the Association and following the guidelines set forth in the Project Implementation Manual, a grievance redress mechanism that encompasses transparent, timely and fair procedures that will allow people potentially affected by the Project to peacefully settle any possible grievance and will ensure that all complaints received from beneficiaries and other interested stakeholders related to any activity under the Project, are properly and timely addressed. Financing Agreement, Schedule 2, Section I, A, 6.

Sections and Description

The Recipient shall, not later than November 1 of each year of Project implementation, prepare and furnish to the Association, an annual work plan and budget containing all activities proposed to be included in the Project and a proposed financing plan for expenditures required for such activities, setting forth the proposed amounts and sources of financing. Financing Agreement, Schedule 2, Section I, C.

Sections and Description

The Recipient shall ensure that the Project is implemented in accordance with the provisions of a Project Implementation Manual satisfactory to the Association, which shall include the following provisions: (a) institutional coordination and day-to-day execution of the Project; (b) Project budgeting, disbursement and financial management; (c) procurement; (d) monitoring, evaluation, reporting and communication of Project activities; (e) eligibility criteria and procedures for the provision of Planted Forests Grants; and (f) such other administrative, financial, technical, and organizational arrangements and procedures as shall be required for the Project. Financing Agreement, Schedule 2, Section I, B.

Conditions

Type	Description
Effectiveness	The Project Implementation Manual has been issued and adopted by the Recipient and approved by the Association. Financing Agreement, Article IV 4.01 (a).
Effectiveness	The Subsidiary Agreement has been entered into by the Recipient and FNDS, in a form and substance acceptable to the Association. Financing Agreement, Article IV 4.01 (b).
Effectiveness	The FIP Loan Agreement, the FIP Grant Agreement and the MDTF Grant Agreement have been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled. Financing Agreement, Article IV 4.01 (c),

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Andre Rodrigues de Aquino	Team Leader(ADM Responsible)		GEN01

Werner L. Kornexl	Team Leader	GENGE
Amos Martinho Malate	Procurement Specialist(ADM Responsible)	GGO07
Antonio Laquene Chamuco	Procurement Specialist	GGO07
Elvis Teodoro Bernado Langa	Financial Management Specialist	GGO26
Alberto Coelho Gomes Costa	Team Member	GSU04
Amanda Teresia Jerneck	Team Member	GEN01
Amelia Jose Cumbi	Team Member	GWA01
Aurore Simbananiye	Team Member	GEN01
Carlos Augusto Cordova	Team Member	GEN07
Carolina Giovannelli	Team Member	GEN01
Celine Lim Jialing	Team Member	GEN01
Ivan Abdul Dula Remane	Team Member	GCCFM
Joao Moura Estevao Marques	Team Member	GFA07
Karin Teixeira Kaechele	Team Member	GCCMI
Mariana Margarita Montiel	Counsel	LEGAM
Marina Hilario Mwanga	Team Member	AFCS2
Mark A. Austin	Team Member	AFCS2
Muino Amarchande Taquidir	Team Member	GEN01
Nuno Maria Brilha Vilela	Safeguards Specialist	GEN01
Paulo Jorge Temba Sithoe	Safeguards Specialist	GEN01
Pedro Arlindo	Team Member	GFA07
Robert Mwehe Mwaniki	Team Member	GEN01
Teofilo Domingos Munjovo	Team Member	AFCS2
Timothy H. Brown	Team Member	GEN01

Extended Team

Name	Title	Organization	Location

Carmen Lahoz	Senior Rural Development Specialist	FAO

MOZAMBIQUE
MOZAMBIQUE FOREST INVESTMENT PROJECT

TABLE OF CONTENTS

I. STRATEGIC CONTEXT

A. Country Context

1. **Mozambique's economy has experienced some of the world's fastest growth rates** since the end of its devastating civil war in 1992, with annual average economic growth of approximately 7.5 percent in the last decade – largely driven by foreign investments – although poverty has fallen only slightly, from 53 percent in 2002 to 46 percent in 2014. In 2014, per capita income was US$586, approximately one-third of the sub-Saharan African average, and the country ranked 178 (out of 187 countries) in the Human Development Index. Capital-intensive megaprojects with limited linkages to the local economy and limited benefits to the bottom 40 percent of the population have driven Mozambique's recent growth.
2. **Extreme poverty is concentrated in the central and northern regions, particularly in rural areas, where many households derive their income from agricultural and forest-related activities**. Zambezia and Nampula, the two most-populous provinces of Mozambique, accounted for 48 percent of the country's poor in 2009. In 2009, almost 75 percent of Zambezia's population lived in extreme poverty. Along with Cabo Delgado, these provinces contain some of Mozambique's most suitable lands for agriculture and forestry[1], which offer significant potential for poverty alleviation. Diversifying the economy, while maintaining the productivity of the natural resource base (forests, soils, water, wildlife) is critical for sustainable and inclusive development.
3. **A new government took office in February 2015, after general elections**. The new administration adopted the Five-Year Government Plan (Plano Quinquenal do Governo, PQG) 2015-19, with a strong emphasis on promoting sustainable rural development, and has identified agriculture and forestry as priority sectors for poverty reduction.

B. Sectoral and Institutional Context

4. **Mozambique is richly endowed with natural resources:** arable land, forests, fisheries, water, wildlife, and mineral resources (coal and gas). Mozambique's substantial natural capital includes 36 million hectares of arable land and 40 million hectares of natural forests and hence significant potential for agriculture and forestry development for food security and commercial purposes. Of the 40 million hectares (51 percent of the country) of forests, almost 27 million hectares are categorized as productive forests. Approximately 7 million hectares of these are managed for wood through concession agreements between the government and the private sector. More than 9 million hectares of forests are within conservation areas.
5. **Mozambique's predominant forest ecosystem is the miombo forest[2], which covers approximately two-thirds of the forested land in the country.** Other forest ecosystem types include internationally recognized biodiversity hotspots such as the coastal forests in southern Mozambique, afro-montane forests in central Mozambique, and coastal dry forests in northern Mozambique. Mozambique also has the second-largest mangrove cover area in Africa.

[1] Systematic Country Diagnostic (2015).
[2] Miombo forests are characterized by open woodland dominated by Cesalpinoideae tree species such as Brachystegia, Julbernardia, and Isoberlinia and often associated with a dense grass cover.

6. **Forests are an important contributor to the country's economy and a source of employment and income in Mozambique's rural areas**. The forest sector contributed approximately US$330.3 million to Mozambique's GDP in 2011 (2.8 percent) and directly employed 22,000 people[3], yet there is much room for Mozambique to increase the contribution of forests to the national economy and local communities while maintaining and enhancing the contribution that the forests make to the global ecosystem (including carbon storage).[4]

7. **Forests provide significant goods and ecosystem services to local communities and contribute to climate resilience.** It is estimated that, in some areas, for example in the Gorongosa district, miombo woodlands contribute approximately 19 percent of household cash income and 40 percent of household subsistence (non-cash) income.[5] Wood and charcoal are critical for household energy needs, with more than 70 percent of the population depending on them for cooking. Non-timber forest products serve nutritional and medicinal needs and have income-generation potential. Forests also act as a safety net for populations by providing secure access to resources and services critical to agriculture and food security. Forests also reduce the probability and effect of natural disasters, as has been documented in the Licungo watershed. Hence, well-managed forests can increase local communities' resilience to climate risks.

8. **Forests also provide significant ecosystem services of global value, particularly carbon sequestration and storage and biodiversity habitat.** Miombo forests constitute important reservoirs of above- and below-ground carbon (at 227 total carbon dioxide (tCO_2)/hectare[6]) and have significant potential as a carbon sink. The total above- and below-ground carbon stock in Mozambique is estimated at more than 4 billion tCO_2.[7] Mozambique's forests are also an important habitat for a variety of herbivores and carnivores, including large terrestrial mammals, some of which are endangered and endemic to Mozambique.

9. **Although Mozambique's forests have tremendous value and potential to maximize benefits locally and globally, they are being rapidly depleted.** Mozambique has an annual deforestation rate of 0.23 percent, representing an annual loss of almost 140,000 hectares of forest,[8] and deforestation rates are increasing. The Zambézia landscape, comprised of nine districts within the province, experienced forest loss at an annual rate of 0.62 percent between 1990 and 2013, far above the national annual rate.[9] This reached 0.86 percent between 2010 and 2013.[10] Forest loss reduces overall forest resources available to local communities and to the private sector, threatening rural livelihoods and the medium-term sustainability of the forest sector; it reduces the government's capacity to obtain much-needed revenues from forest management and removes wildlife and biodiversity habitat, in turn reducing potential for nature-based tourism; and results in greenhouse gas (GHG) emissions of more

[3] FAOSTAT (2011).
[4] Two recent studies, *Financial analysis of the natural forest management sector of Mozambique* (UNIQUE, 2016) and *Harnessing the potential of productive forests and timber value chains for climate change mitigation and green growth: opportunities for private sector engagement* (UNIQUE, 2016).
[5] Hedge and Bull. *Socio-economics of miombo woodland resource use: a household level study in Mozambique*. In: Managing the Miombo Woodlands of Southern Africa Policies, incentives and options for the rural poor (2011).
[6] *Study on the Zambezia Integrated Landscape Management Program*, EtcTerra (2016).
[7] From *Linha de Referência, Monitoria, Relatório e Verificação para o REDD+ em Moçambique,* Sitoe et al. 2013, based on the 2004 national forest inventory, using IPCC Tier 1 calculations.
[8] Figures from the National REDD+ Strategy, from the study *Identificação e analise dos agentes e causas directas e indirectas de deflorestamento e degradação florestal em Moçambique* (CEAGRE and Winrock, 2015), based on global data sets (*High Resolution Global Maps of 21st Century Forest Cover Change*, Hansen et al., 2013). These data are being updated, and the forest emissions reference level prepared as part of REDD+ Readiness.
[9] Similarly based on Hansen et al., 2013
[10] EtcTerra (2016), based on a different methodology (satellite image analysis) as CEAGRE and Winrock (2015).

than 12 million tCO_2 equivalent every year. The country is committed to the promotion of commercial agriculture, which, if not correctly planned, could significantly increase forest loss. National land-use planning is an important tool for addressing this risk.

10. **Forests are lost because of a combination of direct and indirect drivers linked to several sectors, primarily small-scale agriculture, biomass energy, and unsustainable forest management.** Forest conversion to agriculture is the dominant driver of deforestation (65 percent of total deforestation), led primarily by shifting subsistence cultivation (slash-and-burn agriculture, often resulting in uncontrolled spreading of fires) and, to a lesser extent at present, commercial agricultural expansion. Unsustainable commercial timber exploration and extraction of wood as biomass energy[11] account for approximately 15 percent of total deforestation, followed by urban expansion and infrastructure development (12 percent).[12]

11. **Other indirect drivers also contribute to deforestation and forest degradation in Mozambique, including land tenure insecurity, inadequate land use planning and demographic pressure.** Land tenure insecurity discourages investments in longer-term assets with limited to no immediate returns, including forests and other natural resources. This dynamic is made worse by demographic pressure, particularly when agriculturally based population density increases in and close to forested areas as it is occurring in several areas throughout Mozambique. Increased land tenure security and proper land use planning can directly contribute to more sustainable management of natural resources, as it increases the incentives that landholders have of adopting land use practices that account for their long-term effects. The implementation of land policy in Mozambique is inadequate (Annex 6). Unclear institutional arrangements lead to duplication in land registration, while land administration services are weak. Added pressure over land resulting from increased investments in the country renders smallholder farmers and communities vulnerable to losing their land and increases the risk of social instability.

12. **The forest sector in Mozambique suffers from chronically weak governance, further fueling forest loss.** The recently concluded forest governance assessment identified the following challenges: widespread illegality, lack of transparency, incompliance with sustainable forest management rules, low institutional capacity, limited trust among stakeholders (government, local communities, private sector), and limited benefit sharing with local communities**.** Forgone tax revenues were estimated at US$540 million between 2003 and 2013 from unreported wood exports (mostly logs), mainly to Asian markets.[13] A recent assessment of forest operators that the Ministry of Land, Environment and Rural Development (MITADER)[14] undertook revealed a low level of compliance with key forest management environmental and social standards. The government's capacity to enforce the law is limited, the forest licensing system is outdated and cumbersome, basic information on the sector is not publicly available, and low technical capacity of the private sector hinders sustainable forest management and wood value addition. Weak governance further hinders effective public participation and social accountability, which leads to non-inclusive decision-making around natural resource use and the erosion of trust amongst stakeholders.

[11] 80 percent of energy consumed in the country is from fuel wood and charcoal, and up to 98 percent of all extracted forest products are used for these wood fuels.
[12] CEAGRE and Winrock (2015).
[13] *Avaliação das perdas de receitas devido a exploração e comércio ilegal de madeira em Moçambique no período 2003 – 2013*, WWF (2015).
[14] This evaluation was conducted in 2016 with strong involvement of the local university and civil society groups. Co-financed by the World Bank and WWF, it serves as a key indicator for the sector and is drawn upon in the design of the project.

13. **The current government has publicly recognized forest-related challenges and shown commitment to addressing them, pointing to a directional change in management of the forest sector.** MITADER was established, bringing together responsibilities that were previously spread across several ministries, which could facilitate the coordination needed to address challenges of a cross-sectoral nature. MITADER adopted the National Sustainable Development Program, aimed at improving the livelihoods of rural populations and the management of natural resources. MITADER took several strategic actions to address challenges in the forest sector, including a participatory audit of all forest concessions, suspension of new requests for exploration areas, a ban on log exports, updating of the forest law and policy, and an ambitious project, "*Floresta em Pé"*, which aims to promote sustainable integrated rural development through sustainable forest management. MITADER is supporting the development of national forest certification standards.[15] MITADER has also established an independent law enforcement agency, the National Agency for Environmental Quality Control (AQUA), which is developing a new strategy for forest law enforcement. Finally, MITADER has set up a National Sustainable Development Fund (FNDS), which is expected to raise, manage, and disburse domestic and international funds for implementation of Mozambique's National Sustainable Development Program.

14. **Mozambique has been implementing a Reducing Emissions from Deforestation and Forest Degradation (REDD+) Program.** The National REDD+ Strategy is informing the government's approaches to targeting interventions to key drivers of deforestation and addressing institutional and capacity gaps. The strategy will orient interventions targeting Mozambique's key drivers of deforestation in partnership with all relevant stakeholders, and highlight important institutional and capacity gaps that need to be filled. The strategy sets out an ambitious goal to reduce deforestation by 40 percent and restore 1 million hectares of forests by 2030. The strategy has six pillars: i) improvement of governance, including land-use planning; ii) sustainable management of forests; iii) alternative sources of energy; iv) protection of conservation areas; v) forest restoration; and vi) sustainable agriculture. Implementation of these strategic orientations is expected to reduce deforestation. This Mozambique Forest Investment Project (MozFIP) will finance the implementation of these strategic orientations through national-level activities to improve the enabling environment towards the aim of reduced deforestation and on-the-ground investments in two targeted landscapes (the Cabo Delgado and Zambezia provinces) using a landscape approach.[16]

15. **Mozambique's REDD+ Strategy emphasizes the potential of restoring degraded areas.** Mozambique has adequate conditions for expanding multipurpose plantation forestry, including growing demand for forest products, availability of land, and good growing conditions.[17] Accordingly, the government aims to increase its commercial forest plantation area from the current 60,000 hectares to more than 1 million hectares in 2030. Private investments in planted forests[18] present opportunities for supporting rural economic growth and diversification through partnerships

[15] MITADER will develop a national forest certification standard that lays out voluntary best practice guidelines for sustainability in the sector. An international firm is being hired through FCPF to conduct consultations with forest stakeholders on its viability and utility, elaborate the standards, and lay out a roadmap for implementation of the scheme.
[16] A landscape is a defined geographical area in which there are multiple land uses such as agricultural land, pastoral land, forests, and protected areas and a variety of stakeholders with varying interests. A landscape approach is broadly defined as a framework to integrate policy and practice for multiple land uses within a given area to ensure equitable and sustainable use of land while strengthening measures to adapt to climate change and mitigate it when possible.
[17] Improving the Business Climate for Planted Forests in Mozambique (UNIQUE, 2016).
[18] Portucel, a leading company in pulp and paper production, is expected to establish more than 200,000 hectares of plantations and a transformative pulp and paper industry in the country that could generate up to 6,500 new jobs. The company is taking a mosaic approach to the plantation, with blocks of planted forests intermixed with conservation areas of native miombo and communal lands to maximize the social and environmental benefits of such plantations. Reported in the International Finance Corporation's Portucel Moz Summary of Investment Information, available on their website.

that engage communities and create linkages to established markets while safeguarding their resource access rights. Well-structured partnerships can create a balanced emerging sector of anchor investments and small and medium forest growers.

16. **There is potential for communities to reap more benefits from forests,** as a recent World Bank (WB) study[19] on land and community-based natural resources management (NRM) in Mozambique found. To harness this potential, community land delimitation needs to be applied more systematically as part of a wider strategy to promote sustainable natural resource management. The legal registration of land use rights assures the protection of communities and individual land rights, encouraging greater investment in their land. With well-designed and implementable land use plans, farmers/communities are equipped to make informed decisions about their land and to negotiate with investors. Long-term capacity building for communities is needed, as are market linkages and long-term partnerships to harness the market potential for forest and agriculture products.

C. Higher Level Objectives to which the Project Contributes

17. **The project will contribute to the World Bank Group's (WBG) twin goals of ending extreme poverty and boosting shared prosperity.** This project will contribute to enhancing economic opportunities and improving the well-being of some of the most-vulnerable rural households in the country. It will encourage forest-dependent communities and rural farmers to increase their human, financial, and social capital. Project interventions are aimed at securing land tenure rights and access to resources for communities, diversifying livelihood options, boosting agricultural productivity, and exploring linkages to markets for higher engagement in the cash economy.

18. **The project also contributes significantly to the Country Partnership Framework (CPF) for Mozambique Fiscal Year 17-21 (FY 17-21)**, which is organized around three pillars: (i) promoting diversified growth and enhancing productivity; (ii) investing in human capital; and (iii) enhancing sustainability. Subsistence shifting agriculture has been recognized as a major driver of deforestation and forest degradation in Mozambique. By promoting sustainable use and commercialization of forest and non-timber natural resources and promoting conservation agriculture techniques aimed at maintaining soil fertility, this project will contribute to increasing agriculture growth, including growth in productivity and market participation (CPF Objective 1), while generating more resilient production systems equipped to deal with short-term weather variability and longer-term climate change (CPF Objective 10). Techniques based on crop diversification and rotation will also reduce farmer's market and price risk, resulting in more sustainable livelihoods for rural poor individuals. Altogether, these efforts will boost benefits to local communities from management of natural resources (CPF Objective 9) while ensuring their sustainability.

19. **The project covers the three areas of intervention of the WB's Forest Action Plan FY16-20.** The project will direct investments toward the sustainable management of forests and value chains and finance 'forest-smart' interventions. The project's strategic involvement in the agriculture and planted forest sectors are aligned to strengthen the foundations for positive forest outcomes while improving job opportunities. The project fully covers the Forest Action Plan's crosscutting themes of rights, participation, institutions, and governance. By supporting the development of planted forests and promoting sustainable integrated rural development in areas overlapping with Portucel's

[19] See the WB policy brief *Community Based Natural Resource Management: Reformulating and strengthening current approaches in Mozambique* (2016).

investments[20], the project also enhances the synergies between the International Bank of Reconstruction and Development (IBRD) and the International Finance Corporation (IFC).

20. **The project's integrated landscape management approach embodies many of the new Sustainable Development Goals (SDGs).** The project will enhance multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology, and financial resources in the targeted landscape while encouraging and promoting effective public, public-private, and civil society partnerships (SDG-17). The project will promote sustainable management of forests, reversion of land degradation, and climate change mitigation measures and will increase the resilience of the rural population to climate change (SDG-15, SDG-13). Overall, the project's interventions will contribute to poverty reduction and inclusive and sustainable economic growth (SDG-1, SDG-8).

21. **The project also contributes to the Intended Nationally Determined Contribution (INDC) that Mozambique submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in November 2015 and to the African Forest Landscape Restoration Initiative and the Bonn Challenge.** The INDC emphasizes building resilience against climate change, especially in rural areas, and contributing to mitigation, particularly by reducing deforestation and promoting sustainable land management practices in agriculture. Mozambique set targets for total reductions of approximately 23 metric tons of CO_2 ($MtCO_2$) from 2020 to 2024 and 53.4 $MtCO_2$ from 2025 to 2030. Under the scope of the African Forest Landscape Restoration Initiative launched in 2015 in support of the Bonn Challenge for restoration of degraded land, the government committed to restoring 1 million hectares of degraded land by 2030.

22. **The project is strongly aligned with the government's high-level priorities and targets expressed in their Five-Year Plan (PQG 2015-19).** The project will support PQG 2015-19 by promoting increased employment, productivity, and competitiveness in rural areas. Land tenure security is described in PQG 2015-19 as key to promoting the rights of local communities and their livelihoods and a more business-enabling environment in Mozambique, which the project will support. The project will also support the sustainable and transparent management of natural resources and the environment (Priority V), which includes improving land-use planning and strengthening the implementation of these land-use plans. The project also contributes to the provincial development plans of Cabo Delgado and Zambezia – Cabo Delgado's Strategic Development Plan 2010-2020 and Zambezia's Strategic Development Plan 2011-2020. As mentioned earlier, the project contributes directly to the implementation of Mozambique's National Sustainable Development Program.

Program Description

23. **Mozambique's National Sustainable Development Program (the Program) aims to improve the livelihoods of rural households and the sustainability of natural resources.** MITADER implements this Program in partnership with other ministries, provincial and district governments, and service providers from the private sector, nongovernmental organizations (NGOs), and several other partners. It has national coverage and is organized in several strategic pillars, including the *Floresta em Pé* (mentioned above), with a focus on ensuring that forest management generates benefits for local communities and the national economy, and the MozBio Program, focused on

[20] IFC's investment and advisory support to Portucel, a leading pulp and paper producer, to establish eucalyptus plantations in Zambezia and Manica provinces, is intended to set a US$3 billion investment program on a sustainable course. The investment is aiming to reach 130,000 rural poor individuals and improve food security for 24,000 households while developing around 270,000 hectares of sustainable eucalyptus plantations.

making sure that local communities and the national economy realize the benefits from wildlife and protected areas management.

24. **Some of the key Program goals are:**

    a. Increased economic opportunities and livelihoods for rural populations
    b. Reduced net GHG emissions from deforestation
    c. Increased number of hectares of natural resources protected or restored
    d. Improved forest governance
    e. Increased number of attributed land titles
    f. Increased access to finance for agriculture and forest-based production participants
    g. Increased number of rural households with access to rural infrastructure

25. **The WB has been supporting the government's Program through several operations, coordinated around an "Integrated Forests and Landscape Portfolio".** Other WB operations in this Portfolio include the ongoing International Development Association (IDA)/Global Environment Facility financed MozBio project (phase I of Series of Projects, (SoP)), the IDA Agriculture and Natural Resources Landscape Management project (SoP), the REDD+ Readiness support (Forest Carbon Partnership Facility, FCPF), the Dedicated Grant Mechanism for Local Communities (MozDGM), and the Programmatic Advisory Services and Analytics on Forests and Landscapes. This portfolio is financed through different sources, including IDA and several trust funds (FCPF, Program on Forests (PROFOR), and the single-country Multi-Donor Trust Fund (MDTF) for Integrated Forests and Landscape Management).

26. **MozFIP is a key piece in the implementation of the WB's Integrated Forests and Landscape Portfolio.** The project promotes sustainable forest management and land use as a way to generate economic opportunities for local communities and global-level environmental services (carbon storage and biodiversity habitat). MozFIP also expands the portfolio into another province – Cabo Delgado. Finally, MozFIP bridges REDD+ readiness efforts and potential future payments for emissions reductions by financing the implementation of the REDD+ Strategy. As such, it could contribute to unlocking significant results-based finance (Figure 1).[21]

[21] The FCPF Carbon Fund has signed a Letter of Intent with the Government of Mozambique to pay up to US$50 million in emissions reductions originating from the Zambezia Integrated Landscape Program.

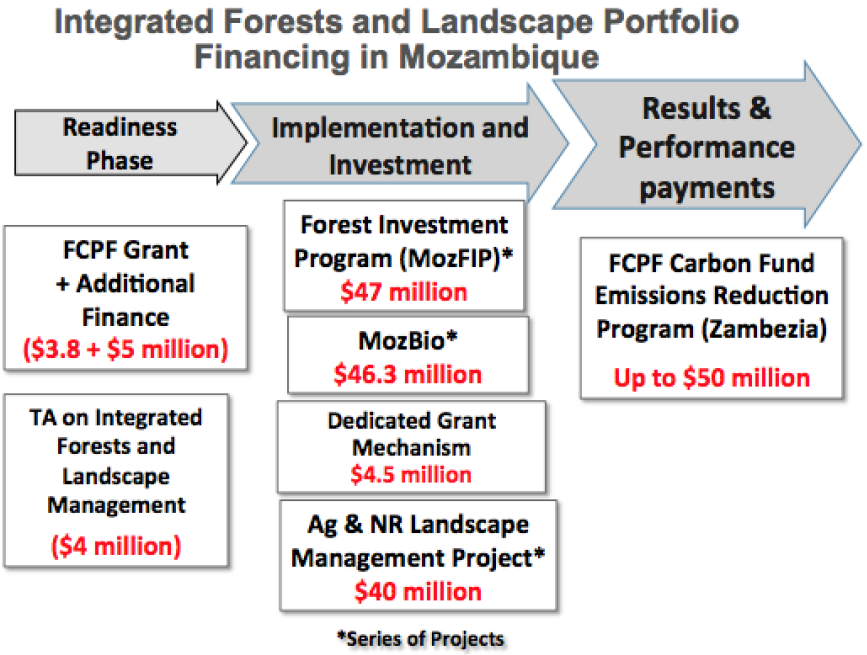


Figure 1. Financing sources in the Integrated Forests and Landscape Portfolio in Mozambique

27. **MozFIP is also the main vehicle for the implementation of Mozambique's Forest Investment Plan.** The Forest Investment Plan[22] represents the government's ambition for transformational change to address the drivers of deforestation and promote sustainable rural development. It is a large-scale modular framework for implementing the National REDD+ Strategy across the country, including supporting ambitious reforms in the forest sector. It will be implemented through three projects, for which funding has been secured from the Climate Investment Fund and other sources: i) this project, MozFIP, which the government will implement with support from the WB; ii) the second project, Emissions Reductions in the Forest Sector through Planted Forests, to be implemented by IFC;[23] and iii) MozDGM, which a civil society organization (to be identified) will implement with support from the WB (P161241).[24] These three projects are highly complementary and will be implemented in coordination, led by MITADER's FNDS.

28. **MozFIP is well coordinated with other Forest Investment Plan projects (IFC and MozDGM).** Part of the goal of the IFC project is to boost functional literacy on plantation forestry, combined with the formation and strengthening of natural resource management committees, land-use planning, piloting storage technologies and developing fire management systems. These will create the conditions needed for implementation of planted forest schemes in MozFIP and complement the efforts of MozFIP and MozDGM to strengthen community groups. The IFC project will also pilot fuel-efficient wood fuel stoves, which is complementary to MozFIP's interventions in the production end of the biomass energy value chain. These projects will also build on and enhance existing

[22] The MozFIP Sub-Committee approved the Forest Investment Plan in June 2016.
[23] IFC manages the second project: Emissions Reductions in the Forest Sector through Planted Forests with Major Investors, which supports community forest management and planted forest outgrower schemes.
[24] The MozDGM is currently under preparation and aims to build the capacity of local communities and community-based organizations to participate in forest and landscape management.

initiatives and platforms, including using similar service providers. As described in Annex 8, MozDGM will promote synergies by boosting the participation of civil society in MozFIP-financed activities and empowering and actively involving community organizations in the governance of forest resources. The projects will be coordinated to target complementary beneficiary groups, specific geographic areas, and distinct technologies, trainings, and interventions.

29. **MozFIP is structured as a 'Series of Projects' (SoP),** designed to be scalable by expanding its geographic coverage. The Series of Projects will contribute to Mozambique's National Sustainable Development Program, which has the overall goal to improve the livelihoods of rural households and the sustainability of natural resources. MozFIP 1 will target landscapes with high levels of poverty and forestry potential in the central and northern region of the country, namely nine districts in Zambézia and seven districts in Cabo Delgado. The SoP geographical coverage could be expanded in the future when additional funding is available and provided implementation progress is deemed satisfactory, upon agreement between the government and the WB. The project mid-term review will evaluate the possibilities for scale-up. Three projects are expected under the SoP.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

The Project Development Objective (PDO) is to improve the practices and enabling environment for forest and land management in Targeted Landscapes.

B. Project Beneficiaries

30. **The direct beneficiaries of the project are approximately 163,000 households in the targeted districts who use forest and agriculture resources for their livelihoods.** Rural communities, including women and youth, will benefit from land titles (individual and community) and community land planning, economic opportunities (including from forest plantation and agroforestry), improved productive inputs through access to technical assistance, training in efficient production technologies, and other market opportunities linked to natural resources.

31. **These beneficiaries include approximately 3,300 small and medium landholders** in timber, non-timber forest, charcoal, and agricultural products who will receive support in preparing management and business plans, training in technologies and improved land-use and product processing techniques, and access to markets.

32. **Other direct beneficiaries include key government institutions at the national level,** specifically MITADER (including National Forest Directorate (DINAF), AQUA, National Protected Areas Agency (ANAC), National Directorate of Land-use Planning and Resettlement (DINOTER)) and the Ministry of Agriculture and Food Security (MASA) (including National Directorate of Agriculture and Silviculture, National Directorate of Agriculture and Extension), who will receive support for strategic planning, improving governance, and technical assistance for policy and operations implementation.

33. **Government institutions at the provincial and district level are also beneficiaries**. These include MITADER's provincial directorates (*Direcção Provincial de Terra, Ambiente e Desenvolvimento Rural* **(**DPTADER)), the provincial forest services (SPF), AQUA's provincial delegations, a few national parks within the landscape (ANAC), the provincial land administration in Cabo Delgado (SPGC), and the respective district authorities.

34. **The project would also reach a significant number of indirect beneficiaries** through improved governance and sustainability in the forest and natural resources sectors; economic opportunities and improved livelihoods; reduced deforestation and improved land and forest management, enabling more-productive landscapes; and reduced erosion, with more-stable water flows. At the global level, the population will benefit from reduced GHG emissions and protected and restored habitat for biodiversity.

C. PDO-Level Results Indicators

- Land area where sustainable land management practices were adopted as a result of the project (number of hectares) (Core)
- Land users adopting sustainable land management practices as a result of the project (number) (of which female) (Core)
- Average score in targeted landscapes from forest governance assessment (Number)
- Share of target beneficiaries satisfied with information about and their participation in forest and land-use decisions that affect them (Percentage) (of which female) (Core)

III. PROJECT DESCRIPTION

A. Project Components

Component Name	Cost (US$ Million)
Promoting Integrated Landscape Management	19.10
Strengthening Enabling Conditions for Sustainable Forest Management	20.20
Project Coordination and Management	7.70

Project Strategy

35. **MozFIP will finance activities at two levels:** (i) landscape-level activities focused on promoting integrated management of two landscapes and (ii) national-level activities focused on strengthening the enabling conditions for sustainable forest management. Interventions at these two levels form a holistic approach: local investments initiate transformation in the forest and land-use sectors while

conditions are created at the national level to allow implementation of activities on the ground. The MozFIP results chain, which details the project's outputs and outcomes, is in Annex 4.

36. **MozFIP follows an integrated landscape management approach** and as such promotes activities in different sectors (forestry, agriculture, and energy) to address the major drivers of deforestation, and involve different stakeholders (government, local communities, private sector, and civil society). The landscape approach recognizes that forest and natural resource management, agriculture development, and energy use are inextricably linked and that interventions need to be made at scale to have an impact on rural poverty and natural resources sustainability.

37. **At the landscape level, the project will promote land delimitation, planning and tenure regularization, establishment of new planted forests and agroforestry areas, and sustainable charcoal production.** The project attempts to address multiple drivers of deforestation rather than simply focus on the primary driver, given that these drivers are often interlinked. It also aims to improve the enabling environment (e.g. capacity) and increase local investment. Finally, MozFIP emphasizes building synergies with other WB projects (refer to the *Integrated Forests and Landscape Portfolio* discussion above) and with other initiatives of different partners. This will be achieved through strong support to multi-stakeholder landscape planning and platforms, to land-use planning at different levels, and to the establishment and operation of Landscape Coordination Units (LCUs).

38. **The project will promote engagement with local communities, strengthen local land tenure and land-use planning, and promote win-win partnerships between local communities and the private sector, which are expected to allow local communities to capture the economic opportunities offered through the project.** Land security would be linked to investment opportunities to ensure that communities benefit from and can continue their own investments in their land and have incentives to sustainably manage the natural resources under their control. Engaging with the private sector is a strategy that aims to reduce the dependence of such initiatives on donor finance and embed rural populations in systems that can be sustained over the long term. The project therefore aims to stimulate these entrepreneurial programs through the planted forest grant scheme, agroforestry systems with some market orientation, community-based forest management, and smallholder charcoal production.

39. **The landscape-level component will be implemented on a pilot basis in two priority landscapes that the government has selected: the Zambezia landscape, composed of nine districts in the Province of Zambezia, and the Cabo Delgado landscape, composed of seven districts in the province of Cabo Delgado.**[25] Lessons learned from these landscapes will inform the Integrated Forest and Landscape Management Portfolio, and the MozFIP (SoP), to be replicated in other parts of the country. The choice of a small number of districts within a substantial geographical area, grouped into two coherent landscapes, allows the project to test the approaches on a manageable scale and be able to achieve concrete results and subsequently apply this model in other places.[26]

40. **At the national level, the project will improve the enabling environment towards sustainable forest management through preparation of the national land-use plan; stronger forest**

[25] Districts in Zambézia include Alto Molócue, Ile, Gilé, Pebane, Maganja da Costa, Mocubela, Mocuba, Gurue, and Mulevala. Districts in Cabo Delgado include Macomia, Meluco, Quissanga, Montepuéz, Ancuabe, Metuge, and Ibo.

[26] The selection of these two priority landscapes for investment was based on a set of principles that the government is using in selecting areas for testing REDD+ and will be used to extend landscape-based activities to other geographical areas when additional resources are mobilized.

governance, inspection, detection, and compliance; and support for reform of natural forest management regulations and practices. Land-use planning is important in managing future trade-offs in land-use choices, given a growing population and plans for the development of commercial agriculture, mining, livestock, and other activities that will put pressure on forests. Strong forest governance is essential for effective, transparent resource management and for sustaining best practices that improve people's livelihoods and land uses. Greater transparency, stronger enforcement of forest law and regulations, and incentives to promote better forest management can orient the sector toward sustainability. These reforms could also attract additional responsible investors into the sector, in turn creating more economic opportunities with less resource degradation. These efforts seek to address the challenge of illegal logging and poor management that has plagued the forest sector and trigger a shift in the focus of the sector from exploitation toward the sustainable management of forest resources.

Project Components (refer to Annex 1 for further details)

Component 1: Promoting Integrated Landscape Management (US$19.1 million)

41. **Sub-Component 1.1 - Regularizing land tenure, promoting community-level land-use planning, and promoting integrated landscape management tools** to strengthen land tenure of local communities and small and medium landholders and enhancing their capacity to plan the use of natural resources over which they have rights and to enhance the capacity of local actors in land-use planning, through:

    a. **Land delimitation of communities**, including the issuance of community delimitation certificates, preparation of community-level land-use plans, and strengthening of community-based organizations (CBOs), including CGRNs. The project will finance consultancy, operational costs and equipment acquisition.

    b. **Issuance of land-use and benefit rights** (DUATs) to small and medium landholders engaged in planted forests and agroforestry. The project will finance consultancy and operational costs to ensure DUAT issuance.

    c. **Institutional support to the provincial land administration service** in Cabo Delgado province. The project will finance infrastructure rehabilitation, office equipment, and maintenance of the land management system.

    d. **Multi-stakeholder landscape forums** (MSLFs) in Zambezia and Cabo Delgado to facilitate multi-stakeholder coordination and dialogue and landscape-level monitoring. The project will finance the operational costs of such forums.

    e. **Geospatial tools** at the provincial and district levels within the targeted landscapes to improve land-use planning. The project will finance equipment acquisition and training to targeted provinces and districts.

42. **Sub-Component 1.2 - Promoting multipurpose planted forests, agroforestry systems, and sustainable charcoal production** by local communities and small and medium landholders, through:

    a. **Planted Forests Grant Scheme,** a performance-based grant scheme for small and medium

landholders and local communities for the establishment of multipurpose plantations and areas of restored lands by providing grants and technical assistance to beneficiaries. The project will finance part of the establishment and maintenance costs of the plantations, technical assistance through a service provider and operational costs.

b. **Agroforestry systems** through the provision of technical assistance and agroforestry inputs (i.e. quality seeds, fertilizers, tree seedlings) to beneficiaries. The project will finance agroforestry system inputs and technical assistance.

c. **Sustainable charcoal production** through the support for: (i) the preparation of forest management plans for charcoal production; (ii) the use of alternative sources of wood for charcoal production; and (iii) training and assistance in the use of more efficient charcoal-making kilns to charcoal producer organizations and/or individual producers. The project will finance consultancy, operational costs and equipment acquisition.

Component 2: Strengthening the Enabling Conditions for Sustainable Forest Management (US$20.2 million)

43. **Sub-Component 2.1 - Developing the National Land Use Plan (NLUP) to promote more sustainable long-term land-use decisions**, which is to be prepared in close consultation with relevant stakeholders. The NLUP will include a dynamic modeling platform for evaluating interventions for improved land-use management. The project will finance consultancy and operational costs.

44. **Sub-Component 2.2 - Strengthening forest governance** to reduce forest-related crimes and illegal activities in the sector, to increase benefits to government and local communities from forest management, and to ensure compliance with sustainable forest management practices, through:

a. **Forest sector patrolling and inspection, prevention and detection** through support to the government's forest law enforcement institutions (particularly AQUA and ANAC)[27], including: (i) training and technical assistance on planning and monitoring for AQUA, including to strengthen coordination with other institutions involved in law enforcement (ANAC, DINAF, customs, etc.); (ii) capacity strengthening of forest rangers at AQUA and ANAC; (iii) establishment of AQUA's provincial delegations in the targeted landscapes, including equipment acquisition, staff financing and training and operational costs; and (iv) strengthening the management of two conservation areas (Gile National Reserve and Quirimbas National Park) through equipment and operational costs (fuel, food and communications).

b. **A forest information system** to increase transparency and accountability in the sector by providing updated geo-referenced information on forest licensing, forest management plan implementation, inspection, and law enforcement. The project will finance equipment, data collection, data management infrastructure acquisition and capacity building.

c. **Transparency and multi-stakeholder dialogue in the forest sector** will support citizen engagement in a National Forest Forum and regular and participatory evaluations of the forest

[27] The financing will categorically exclude any support for activities that the WB's policies and rules prohibit, as outlined in "Legal Vice Presidency Annual Report FY 2013: The World Bank's Engagement in the Criminal Justice Sector and the Role of Lawyers in the "Solutions Bank"".

sector. The project will finance the operational costs of the forum and the costs associated with conducting the evaluations.

45. **Sub-Component 2.3 - Strengthening natural forest management** to ensure sustainable use of forest resources, to increase benefits to local communities and government, and to add value to forest products, through:

    a. Training of forest operators committed to sustainable forest management in obtaining forest certification and in adding value to forest products; **and of the forest administration**, particularly at the provincial level, on different aspects of forest management, including forest management plan implementation and piloting new forest concession allocation systems. The project will finance training, operational costs, consultancies, and equipment acquisition.

    b. Support for sustainable small-scale forest businesses, such as community enterprises**,** MSMEs and community–private sector partnerships, to add value to forest products. The project will finance trainings, operational costs, equipment acquisition, and consultancies.

Component 3: Project Coordination and Management (US$7.7 million)

46. **Financing the incremental costs of FNDS related to project management,** including the costs of the LCUs. This includes support for project coordination and management, including fiduciary and safeguards management, monitoring and evaluation (M&E), and communications.

B. Project Cost and Financing

47. **The project is designed as Investment Project Financing.** It has been prepared and appraised for a total amount of US$47 million equivalent, of which US$22 million has been allocated from the FIP (US$13.2 million in loans, US$8.8 million in grants), US$10 million from the Integrated Landscape and Forests Management (ILFM) Multi-Donor Trust Fund (MDTF), and US$15 million as an IDA credit.

48. **The ILFM MDTF will support integrated landscape and forests management in Mozambique.** Sweden has committed 125 million Swedish crowns (SEK; ~US$15 million).[28] US$10 million of that will co-finance the project, and the rest will finance the Programmatic Advisory Services and Analytics on Integrated Forests and Landscape Management (P161745), a technical assistance program in support of Mozambique's Integrated Forests and Landscape Portfolio executed by the WB. The Administration Agreement foresees payment of the overall 125 million SEK in four installments. The first installment has been received, and the available funds of US$3 million were committed to the government at the time of negotiations. The remaining funds of US$7 million will be made available to the government once the donor has disbursed it. Should these funds not become available by the project's mid-term review, project targets will be reviewed to ensure they are realistic based on the funding available.

49. **Mozambique is one of the countries to receive financing through the Forest Investment Program (FIP) of the Climate Investment Funds (CIF).** Mozambique was selected to develop a FIP Investment Plan through a competitive process in 2015. In July 2016, the FIP Sub-Committee

[28] The final disbursed amount will vary depending on the exchange rate between the US$ and the SEK.

approved the Plan for US$24 million. US$22 million of this is financing the present project (MozFIP), and IFC is managing US$2 million for a project to support communities in outgrower schemes in the planted forest industry. Mozambique has also received US$4.5 million for the MozDGM[29], which will be closely linked to MozFIP through supporting civil society and local community initiatives.

50. **Disbursement Phasing.** Since all project activities are eligible for financing by all four sources of funds, disbursements from the financing sources will be made in the following order: 1. Integrated Landscape and Forests Management MDTF; 2. Strategic Climate Fund Grant; 3. IDA Credit; 4. Strategic Climate Fund Loan. When the expected additional US$7 million from the MDTF is made available to the client, the use of these funds should be prioritized, given the closing date of the MDTF (December 2021).

Table 1 - MozFIP Project Components

Project Components	Financing (US$, million)
Component 1: Promoting Integrated Landscape Management	**19.1**
Regularizing land tenure, promoting community-level land use planning and promoting integrated landscape management tools	3.7
Promoting Multipurpose Planted Forests, Agroforestry Systems and Sustainable Charcoal Production	15.4
Component 2: Strengthening the Enabling Conditions for Sustainable Forest Management	**20.2**
Developing the National Land Use Plan	5.0
Strengthening Forest Governance	10.8
Strengthening Natural Forest Management	4.4
Component 3: Project Coordination and Management	**7.7**
TOTAL	**47.0**

C. Lessons Learned and Reflected in the Project Design

51. **Relevant lessons from experiences, both international and local, show that the landscape approach to reducing deforestation and enhancing local livelihoods is appropriate given the complexity and interconnectedness of the land-use sectors.** Interventions in the landscape must address and consider, in a coordinated manner, ecological constraints, governance, land tenure security and land planning, stakeholder dialogue and participation in decision-making, promotion of economic opportunities for resource users, and incentives for behavior change. These lessons have informed the design of the project, whereas project design and preparation was also built on numerous analytical studies, other WB operations (particularly recent ones prepared in Mozambique, such as MozBio and the Agriculture and Natural Resources Landscape Management projects), and dialogue with local partners. Lessons learned covering key dimensions and how they are incorporated in this project are presented in the table below.

Strategic Lesson	Country Examples/Practices Reflected in the Design of MozFIP
The integrated	The landscape approach recognizes the interdependence between forests and other land-use

[29] The MozDGM's (P161241) PDO is "*to strengthen the capacity of local communities, community-based and civil society organizations to participate actively in sustainable forest and land management and REDD+ processes at the local, national and global levels".* MozDGM is under preparation and is scheduled to go to the Board in early FY18.

Strategic Lesson	Country Examples/Practices Reflected in the Design of MozFIP
landscape approach is critical to achieving the project's goals of addressing the drivers of deforestation and degradation while generating rural development benefits by combining land-based economic activities with the sustainable management of natural resources. Effective tools to manage space are essential to achieve these goals.	sectors and the conservation of natural resources, and it seeks to increase rural households' incomes while strengthening the resilience and sustainability of these natural resources. This approach emphasizes the importance of land planning as the basis on which to allocate and monitor multiple land uses and integrates policy and investments within a given geographic area. The project recognizes that forest management, agriculture development, reforestation, and sustainable biomass energy are inextricably linked, both institutionally and at the local technical level. It integrates interventions in different land-use sectors that promote economic activities as a means and an end to reducing deforestation. Achieving these goals requires effective tools to manage space at several landscape levels. The project emphasizes geospatial capacity building at the provincial and district level for better decision-making and spatial planning, involving local government authorities and other land users with relevant stakes in the landscape. Additionally, within the scope of its community delimitation activities, interventions will build the capacity of communities to create and implement land-use plans. Furthermore, the geographic targeting of these activities by the project is based on objective and transparent geographic information system-based analysis of needs and probability of success using participatory strategies for the definition of specific criteria and weighting through analytic hierarchy process models.
Land tenure security and secure access to resources are fundamental to sustainable natural resource management. Strengthening community rights through community land delimitation and planning in the Mozambique context can lead to reducing deforestation and generate longer-term benefits for communities.	Lessons learned from projects such as the Community Land Initiative in Mozambique and similar experiences in other African countries (Ethiopia, Ghana, Rwanda, Tanzania) have shown the importance of secure community land rights. The lack of registration and formal recording of land-use rights renders smallholder farmers and communities vulnerable to losing their land, and there is less incentive to protect the resources on and around it by making longer-term investments that could spur productivity of the land. Increased land tenure security and proper land planning can contribute directly to sustainable natural resource management and agricultural productivity – leading to income benefits – as landholders are given incentives to adopt land-use practices that lead to positive outcomes in the long term. Land rights are the basis for communities to capture the economic opportunities offered through the project, with rights linked to investment opportunities to ensure that communities benefit and can continue their own investments on their land. These rights also provide the basis for negotiations between farmers or communities and investors who are interested in entering partnerships regarding land use. As a result, local populations gain a tangible benefit from ownership of their land and natural resources and are able to participate as active stakeholders in new investments and enterprise development. It has been shown that delimitation, combined with basic community land-use planning, helps to protect local rights and prepares communities to engage more effectively with outside interests such as potential investors and other business opportunities. This complex dynamic underscores the need for land tenure regularization, particularly in the context of this project, which expects to link communities to investments and market opportunities.
Effective multi-stakeholder platforms can enhance cross-sectorial coordination, resolve trade-offs, and enable healthy	Resolving trade-offs and working toward shared sustainable development goals within the landscape is critical. The success of Kenya's Imarisha multi-stakeholder platform targeted at the Lake Naivasha basin was built on regular convening and an effective monitoring mechanism, enabling the showcasing of results and leveraging of additional resources to be invested in the region. In line with international best practices, this project will support the development and operation of multi-stakeholder forums in Zambézia and Cabo Delgado to facilitate the emergence of a common vision and assessment and resolution of trade-offs. To avoid additional transaction costs, the project will build on and strengthen existing platforms

Strategic Lesson	Country Examples/Practices Reflected in the Design of MozFIP
landscapes. This requires facilitation, agreement on goals, and continued monitoring.	in both areas. In Brazil's São Félix do Xingú, municipality, multi-stakeholder agreements and multisector green growth programs were embedded in the established dialogue platform, leading to the signing of the Pact for the End of Illegal Deforestation by more than 40 organizations in 2011. Regular meetings and monitoring of the pact are said to have driven the 85 percent reduction in deforestation between 2008 and 2014 in São Félix do Xingú. The project will support similar mechanisms embedded in the provincial platforms as a way to define shared goals, converge efforts, and track performance.
Agriculture and reforestation projects that are government led and input based tend not to be successful or sustainable in the long-run. The project will therefore promote private sector engagement models, with an emphasis on performance-based payments as a way to create incentives for multipurpose reforestation.	The bureaucracy of government-led schemes can stifle innovation, delay activities, or lead to complacent performance of scheme recipients. Transparent, sound governance of any grant scheme is crucial. Designed as a performance-based payment scheme that is run as a public–private partnership, the project's restoration grant scheme is less likely to be held back by bureaucratic inefficiencies, while tying payments to results will encourage optimum performance. The Sawlog Production Grant Scheme in Uganda, which has been considered a success, was run as a semiautonomous body, with government and donors on the steering committee. Private sector experience of management, its nonpolitical nature, results-orientated staff, and transparent management were critical elements of success. The performance-based nature of the scheme will necessitate clear targets and standards in contracts, and consequences must be enforced if standards are not achieved. In the Sawlog Production Grant Scheme, when standards were not achieved, the grant was cancelled, or growers started from scratch. Contracts were amended or annulled if poor performance was detected after one year in the scheme. Retroactive payments discouraged time-wasters, led nonperformers to drop out quickly, and phased payments encouraged maintenance of trees beyond planting. A justification for an establishment grant is that the long timescale of forestry means that few banks and financial institutions will lend money for the business. Furthermore, in Mozambique, there are few official outgrower schemes with private actors because the sector is in its early stages of development, and large investors who would invest in SMEs are establishing their own resource base.
Sustainable forest management depends on achieving a variety of conditions, including proper silvicultural practices and management planning and ensuring forest productivity and timber production for a sustained revenue stream. It also has to be coupled with competent systems for verification and enforcement.	Several elements define sustainable natural forest management, including the limits of marketable species, the size of the resource base, management and operations techniques, processing, and markets. As part of project preparation, a study on forest operations in the project area was conducted and the local context reviewed to understand these elements. The project therefore takes this comprehensive basis of sustainable forest management into account in the design of strategies to determine where the points of entry should be. Increasing the value of standing forests by increasing the value of wood products can reduce incentives for illegal and unsustainable forest exploitation and increase incentives for communities to manage the resources sustainably. This can be done by enhancing the local timber industry or the value of domestically produced wood products for exportation to profitable international markets, although the extent of better economic performance of forest operations from processing differs from forest to forest, depending on yields, local markets, distance, and intervention cycles. Examples from Brazil, the Democratic Republic of Congo, and other tropical forested countries that face illegal logging challenges show that effective enforcement, sufficient trained guards, and independence of the enforcement agency are critical to address illegality. In Brazil, increased law enforcement was coupled with monitoring data to facilitate a reduction in deforestation in the 2000s. The project will seek to strengthen Mozambique's

Strategic Lesson	Country Examples/Practices Reflected in the Design of MozFIP
	enforcement and forest information systems.
To address degradation from biomass energy exploration, clarifying tenure over resources is key. The best approach is to start small and develop a proof of concept for support models before scaling up to avoid problems and minimize inefficiencies.	Charcoal production is considered the second biggest driver of deforestation in Mozambique after smallholder, shifting agriculture. As a study by the Biomass Technology Group showed (2010), the clarification of tenure rights over land and forest resources to a large extent drove the gradual delinking of charcoal production and deforestation in Rwanda, Madagascar, and Senegal. Community delimitation and support of the production of community-level land-use plans under the project will emphasize good natural resource management, including in the production of charcoal and fuel wood. Recent analysis by civil society organizations in Mozambique have confirmed the conclusion that simple improvements in practices linked to charcoal production, such as the organization of wood material within kilns and kiln design using the same traditional material, can produce efficiency gains of as much as 100 percent. This suggests the need to focus on simple yet high-impact changes to traditional practices and on achieving high adoption rates. A strategic decision has thus been made to start small and get the technical assistance models right before scaling up.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

52. **MITADER's FNDS[30] will be responsible for overall strategic guidance and will coordinate project implementation, particularly through its International Funds Management Unit (UGFI).** FNDS will be responsible for the technical and financial coordination of the project, and will work closely with some of MITADER's technical directorates, and coordinate with those in other line ministries. The **FIP National Steering Committee**, formed in 2015, comprises government organizations, the private sector, research institutions and civil society organizations and has the

[30] FNDS was created on Feb 24, 2016, and it has the objective to promote and finance programs and projects that support the sustainable development. FNDS has 4 units: finance, investments, planning and the International Funds Management Unit.

overall mandate to support UGFI in strategic decision-making regarding the FIP. The committee will serve a technical advisory role, provide technical inputs to the MozFIP project, ensure alignment between the project and other government programs and liaise with relevant stakeholders.

53. **UGFI (housed in FNDS) will implement the project at the central level.** UGFI will be tasked with the implementation of all project activities, including technical supervision and coordination, overall project planning, quality oversight, communication, safeguards management, reporting, procurement, financial management, monitoring of project activities, and regularly monitoring and reporting on its progress. **Under the supervision of DPTADER, the LCUs will coordinate project activities** and monitor project implementation progress at the provincial level and interface with the district authorities. The LCUs, which are fully staffed with technical specialists, report to the national UGFI coordinator and to the MITADER provincial directors.

54. **The existing provincial MSLFs will play an important role in project coordination and in promoting integrated landscape management.** The provincial MSLFs bring together stakeholders to discuss relevant issues in the landscape, and are also expected to promote better coordination of projects and other initiatives in the landscapes. Service providers will be hired through a competitive process and will implement activities under the supervision of the FNDS and the LCUs.

B. Results Monitoring and Evaluation

55. **Project monitoring and evaluation (M&E) will focus on data collection and reporting on key performance input, output and outcome indicators, including targeted data collection, surveys, and mid-term and end-of-project evaluations.** Since service providers carrying out the activities will collect much of the field level data, there will be a pronounced role of the project management unit on both national and provincial levels to monitor the accuracy of such data. Regular monitoring visits by the PIU to all out-sourced activities will thus be necessary. The Results Framework is presented in Section VII. Where possible, data on beneficiaries will be gender-disaggregated. There will be a mid-term review (MTR) and an evaluation at the end of the Project carried out by external parties. The project will finance M&E costs, including costs associated with the MTR and project completion review.

C. Sustainability

56. **The project focuses on creating the enabling conditions and capacity for change in forest and land management, specifically by promoting stronger forest governance, which is the basis for sustainable resource management.** Improved governance will foster transparency, inclusion, and effectiveness in investments and decision-making. The project promotes institutional strengthening at all levels (national, provincial, district) through skills, management, and organizational training across its activities, which contributes to building local capacity that persists beyond the life of the project. The project recognizes that strengthening subnational capacity is necessary for successful initiatives to take root and therefore dedicates significant attention to promoting coordination at that level.

57. **The project promotes financially viable forest-based and agriculture production**. The project would promote a strong base for inclusive and participatory engagement with rural communities and stronger local land tenure. Land security would be linked to investment opportunities to ensure that communities benefit, can continue investing in their land, and have incentives to sustainably manage

the natural resources under their control. Community engagement in win-win partnerships with the private sector is the entry point for landscape interventions in the project. Engaging with and in the private sector can reduce the dependence of such initiatives on donor finance and embed communities in systems that can be sustained in the long term. The project therefore aims to stimulate these entrepreneurial programs through the planted forest grant scheme, agroforestry systems that are linked to the market, community-based forest management, and smallholder charcoal production.

58. **There are three channels through which financial sustainability of this project is anticipated, such that the government is supported in maintaining the costs of the proposed operations.** First, by strengthening the enforcement agency, AQUA, the project will seek to increase national funds – specifically by recouping lost revenue from illegal timber harvesting ($540 million lost over 10 years) and forest fines. Second, the National Sustainable Development Fund – an ambitious initiative of the government to establish a national fund that will raise money from different sources – is managing the project. A key function of the fund is to raise money internationally from sources such as the Green Climate Fund, and this function is embedded in a permanent government structure. The Integrated Forests and Landscape Management MDTF established this year would dedicate resources to building the institutional capacity of this fund to leverage money successfully. This fund already has resources to maintain the monitoring tools that the project promotes through REDD+. Third, performance-based payments are another important source of continued financing. Mozambique has recently signed a US$50 million Letter of Intent with the FCPF Carbon Fund, and part of these potential future resources could be used to maintain the systems that the project will establish.

59. **The project promotes an integrated landscape management approach, a key objective of which is to ensure that the aggregate effect of the land-use practices promoted by the project is long-term environmental sustainability and that sufficient incentives for sustainability exist.** This approach recognizes trade-offs from different land uses that are based on landscape- and community-level planning. This approach will also support platforms and tools to create a common understanding and long-term engagement of stakeholders. The Zambezia Sustainable Development Multi-Stakeholder Platform is one such example that has already had promising results.

D. Role of Partners

60. **The Government has engaged in stakeholder consultations and dialogue to communicate project objectives and approaches to ensure that all stakeholders can provide inputs that can lead to better implementation performance**. Consultations will continue during project implementation at the national, provincial, district, and local levels, aimed at maintaining dialogue and information sharing about project intervention. The government has actively engaging with a variety of ministries and sector agencies in the project preparation process. This coordination and engagement will continue throughout preparation and implementation of the programs.

61. **The private sector has been engaged during project preparation, given the emphasis of the project on support to SMEs in the natural and planted forest sectors.** The government has also convened development partners who attended all national consultations related to the development of the Forest Investment Plan and participated in joint missions to the Zambezia and Cabo Delgado program areas. To increase the visibility of the project and to engage a wider group of partners and

stakeholders, the project has a communications strategy that highlights the project's emphasis on reducing deforestation and on the livelihoods of rural communities.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

62. **The overall risk rating for the project is substantial**. The key risks and proposed mitigation measures are outlined below.

63. **Political and Governance.** Powerful interests benefit from the status quo in timber over-harvesting and may have reduced economic opportunities due to increased law enforcement. Local communities benefit from illegal extraction of timber, so they may also resent changes proposed by the project. It is a challenge for the officials championing these reforms to produce demonstrable and widely shared benefits in relatively short order – and a risk if they do not. MozFIP proposes a broad suite of improvements in policy and practice as a mitigation strategy, targeting benefits to local communities. MozFIP is also part of the broader dialogue between the government and development partners, the latter consistently encouraging reform-oriented sectors of the government. Technical assistance and policy advice will assist the government in making informed policy choices. Resources are also allocated for communication efforts to ensure that the program of reforms is widely disseminated and understood. Shifts in political appointments, especially of those who are champions, could also drastically affect the buy-in and progress of the project. The project recognizes these challenges and therefore proposes to initiate a process of reform in the forest sector by focusing on the most urgent and implementable actions. Another significant political risk is that Mozambique is experiencing ongoing conflict, with the political situation having entered a more-dangerous phase characterized by increased violence in the central and northern parts of the country, although the country has engaged in and stepped up international mediation that could lead to a lasting settlement.

64. **Macroeconomic**. The increase in debt levels, depreciation of the metical, and external shocks (e.g. commodity prices) have heightened Mozambique's macroeconomic vulnerability and exposure to fiscal risk. A deteriorating macroeconomic context may affect investor appetite in Mozambique's forest and agriculture sector and create a difficult business environment for the private sector through higher prices, exchange rate volatility, and lower demand. Although investors remain confident about Mozambique's long-term growth prospects, driven by the gas sector, macroeconomic instability coupled with low commodity prices could have a major effect on growth and opportunities in sectors such as forestry and agriculture. The project will seek to mitigate these risks by strengthening market opportunities and addressing governance challenges that would help maintain a favorable investment environment in the targeted sectors. Broader macroeconomic risks are also being mitigated through policy dialogue, technical assistance, and potential future policy-based lending under the broader country program. Continued close coordination with the International Monetary Fund and development partners will also help to encourage the adoption of needed reforms to re-establish macroeconomic stability.

65. **Sector Strategies and Policies.** Weak governance in the sector has led to illegality, limited transparency and stakeholder engagement, and there is a lack of strategic vision for the sector. The government has recognized these challenges and shown commitment to addressing them, embedding these sectors into national strategies such as the National Rural Development Program and the Five-

Year Plan. MozFIP has engaged in strategic policy dialogue with the government and directly supports efforts to initiate reform in the sector towards improved governance and sustainability.

66. **Technical Design.** The project is a complex operation, with interventions across multiple sectors and levels of government and involving a wide array of stakeholders. The project does not focus solely on the main deforestation driver, but rather on a wide variety of forest and land-use challenges. This multiplicity of activities is in line with the integrated landscape approach that the project promotes, such that multiple drivers in different sectors are addressed in a holistic and complementary way over different land-use types that need different approaches while reducing externalities. To address risks associated with the technical complexity and scope of the project, there will be a strong focus on continuous capacity building, use of highly experienced international and national consultants and service providers with deep local knowledge, and decentralization of activities to the provinces.

67. **Institutional Capacity for Implementation and Sustainability.** FNDS's capacity has increased significantly in the past year (with strong technical assistance from the WB and practical training through ongoing operations), but given that FNDS was recently established, it is still organizing itself internally to achieve desired performance. AQUA, the national enforcement agency, is also newly established, and there is thus room for strategy and institutional capacity building. FNDS will continue to be supported in increasing its capacity, including at the provincial level, to lead this wide-ranging project. The WB has also just launched a Programmatic ASA (P161745) to provide technical assistance on several issues (including overall management) to FNDS. AQUA is also receiving support to develop its capacity, with FCPF support. Subnational level capacity is important for successful implementation and sustainability of the project, and the WB has dedicated significant attention to that, particularly through the FCPF grant and the IDA Landscape project. Both targeted provinces now have LCUs directly linked to MITADER that are fully staffed and have adequate capacity.

68. **Fiduciary.** FNDS was established recently, and its fiduciary capacity is still being consolidated. Its capacity will be further strained with the additional procurement load from the project. As mitigation, a procurement officer will be recruited, and the Bank procurement team will provide additional training sessions to FNDS.

69. **Environmental and social.** The proposed project activities under MozFIP are anticipated to have positive social and environmental effects, but residual environmental and social risks exist, ranging from soil degradation to non-inclusive investment practices and deterioration of rural livelihoods. The promotion of planted forests could raise expectations of surrounding communities regarding employment and new market opportunities, with the risk of frustrating those not directly engaged or perceiving direct benefits. Measures to mitigate these risks are detailed in the Environmental and Social Management Framework (ESMF). Restriction of access to land and natural resources could cause conflicts. The performance-based scheme could increase speculation on land acquisition surround the scheme's areas. As such, the project will prepare a broad and integrated communication plan that will work in synergy with a Community Development Action Plan (CDAP) to manage communication, expectations, and opportunities. The CDAP is a participatory tool that NGOs are already using nationwide and that the government has validated that focuses on social preparedness in the community land delimitation process, identification and prioritization of opportunities, and mitigation actions should land areas or forests be ceded. A strict safeguards screening process (detailed in the ESMF) of beneficiaries of various project activities will also minimize risks. Safeguards management capacity will also be strengthened; the project will finance a dedicated safeguards specialist at the provincial level, and the WB team will continue to provide capacity building. To reduce the risk of unfairness in partnerships between the community and the private

sector, the project will provide strong technical assistance to communities and set general conditions to support these partnerships. The nature of the partnerships will also account for the capacity of each type of participating stakeholder. When and where considered adequate, activities will be subject to Environmental and Social Management Plans to address effects and risk mitigation. Finally, a Grievance Redress Mechanism will be established to inform project management about claims and conflicts, which in turn guides peaceful, participatory resolution.

70. **Stakeholders.** Investments in natural forests, forest plantations, and agriculture are under close scrutiny by national and international NGOs. Forests plantations are criticized for their potential social risks (not respecting the rights of local communities when private firms develop such plantations) and environmental risks (conversion of natural forests into plantations and degradation of sensitive areas such as riparian forests). International NGOs have criticized REDD+, particularly out of concern that activities implemented to achieve REDD+ may jeopardize the rights of local communities. As a mitigation strategy, the government is implementing a communication and consultation strategy (through community radio, theater plays, community meetings; refer to *www.redd.co.mz*). Most national NGOs in Mozambique are supportive of the FIP Investment Plan and the REDD+ Strategy and have been actively engaged in the discussions. The UGFI will be encouraged to continue to engage in dialogue with NGOs and involve them in project activities related to community consultations and the development of local community investor protocols. The link between this project and the dedicated grant mechanism for local communities will be particularly important. The WB will also continue to engage and coordinate with existing development partners.

71. **(Other) Land tenure regularization.** The major risks in land tenure regularization (LTR) are conflict, which originates from weak consultation processes that are non-inclusive, including poor dissemination of the legislation to local communities and lack of follow-through with communities on the opportunities and risks of engaging with other stakeholders after a delimitation process; low capacity of the provincial and district offices to support the registration process and ensure good quality control and efficient registration; and unreliability of the registration system with regard to data quality and the capacity to be used properly at all levels. The project will ensure consultations and negotiation processes with communities and rural dwellers and a rigorous social preparation process, which entails working with communities over an extended period of time to facilitate development of community agendas and community land-use plans in a participatory manner sensitive to traditional governance structures and cultures of communities. These have facilitated inclusiveness in past experiences in the country. MozDGM would contribute to that as well. The project will work with service providers with demonstrated capacity to support LTR in a robust, inclusive manner and continue dialogue with the government and donors on the sustainability strategy for the land information management system and improved LTR methodologies.

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

72. **The analysis suggests that the project interventions are economically feasible and will generate significant benefits with economic Net Present Value of US$188 million over 50 years and internal rate of return of 27.3 percent.** The project will bring about large economic benefits to society by addressing many of the drivers of deforestation and forest degradation. In the analysis,

two principal benefit categories are quantified: carbon sequestration and livelihood benefits, but the total benefits are likely to be much higher. A cash flow model is used. The economic Net Present Value (NPV) of carbon sequestration is estimated at US$ 179 million and the financial at US$33 million over 50 years at 6 percent, reflecting the difference between the economic (US$30 per ton) and financial (US$5.5 per ton) values of carbon. The livelihood benefits are estimated for 4 activities: natural forest management, forest plantations, agroforestry, and charcoal. Under the natural forest management component, the project will support the 24 concession holders on 600,000 ha of natural forests to transition towards financially, economically and socially more sustainable practices. This is estimated to bring about benefits with NPV of US$43 million over 50 years at 6 percent. Forest plantations will be introduced on 5,000 ha of fallow agricultural land and the ENPV is US$ 10.4 million. The agroforestry interventions will strengthen crop yields and will bring about ENPV of US$0.7 million. The charcoal intervention will improve the efficiency of production by about 30 percent in 500 kilns and this is valued at US$3 million. The project's overall ENPV is US$188 million over 50 years and its economic benefit-to-cost ratio is 4.9. Conservative price projections are used and a sensitivity analysis is carried out, which confirm that the project interventions are economically feasible and will generate significant and positive benefits that outweigh the costs.

		Economic		Financial	
		NPV – 50 Years	**NPV – 25 Years**	**NPV – 50 Years**	**NPV – 25 Years**
Forest plantations and agroforestry		11.2	2	11.2	2
Charcoal		3	2	3	2
Improved natural forest management		43	20	43	20
Improved carbon balance		179	141	33	26
Capital investment costs		-38	-38	-42	-42
Recurring costs		-11	-9	-12	-10
Net benefit - total		188	119	36	-2
	Benefit-cost ratio	4.9	3.6	1.7	1.0
	Internal rate of return	27.3%	27.1%	8.9%	5.7%
	Payback period	7 years		18 years	

Table 2. Economic and financial analysis results

73. **WB's comparative advantage and value added.** The WB has considerable experience working with the Government of Mozambique on policy and regulatory issues, investment project financing and implementation, and has a deep involvement in the country in natural resources sectors. The WB has actively supported the Government's efforts in sustainable natural resource management for two decades with the inception of the Trans-Frontier Conservation Areas (TFCA) management project in 1995. The forestry sector became an integral part of the portfolio in 2012 with the financing, advice and analytical support to the government on REDD+ through the Forest Carbon Partnership Facility (FCPF) REDD+ Readiness grant. WB support has expanded rapidly since to include multiple operations and technical assistance within the Integrated Forests and Landscape

portfolio, including supporting strategic planning in several agencies under MITADER. The WB hosts a range of climate finance mechanisms, and is actively assisting Mozambique to access additional sources of global climate finance toward key development challenges under several instruments. The WB's leadership in the sector is widely recognized, as illustrated by the request of donors for the WB to set up a MDTF in support of landscape and forest management in Mozambique.

B. Technical

74. **A robust set of analytical work informed the project design.** This includes studies done for the REDD+ Readiness process at the national and provincial (Zambezia and Cabo Delgado) levels, such as on drivers of deforestation, legal and institutional arrangements, safeguards, detailed studies on deforestation drivers and opportunities in both landscapes, market potential for key non-timber forest product value chains, a forest governance assessment in the two provinces, and a financial viability study of forest operations. Other studies include Non-Lending Technical Assistance on the business climate for planted forests and on land- and community-based NRM; a series of policy notes on forest law enforcement and forest and environment information systems; and a national fund for sustainable development. Ongoing Monitoring, Reporting and Verification (MRV) work, including a national forest inventory, and recent lessons from the MozBio and Agriculture and Natural Resource Landscape Management Project were incorporated into MozFIP. The project design draws from these analyses to ensure that interventions are causally linked to the problems that the project seeks to solve.

75. **Integrated landscape management requires working on landscape planning, land tenure regularization, reforestation and restoration, agriculture, and biomass energy.** The proposed techniques have been tested in Mozambique, but on a small scale. Current regional experiences inform the design of the activities, which are in line with modern techniques and technologies to ensure the latest knowledge from recent experiences. Entities with local experience in the targeted sectors or with the targeted beneficiaries will be involved in implementation to ensure critical reflection on the approaches to be used. The principles of an integrated landscape approach, which the project promotes, follow years of practices, as summarized in the "Landscape Handbook" (2016) and other literature.

76. **The design of the planted forest scheme draws on best practices available in the country, the region, and elsewhere in the world**, particularly the Uganda Sawlog Production Grant Scheme. A detailed official technical plantation and restoration handbook for the scheme's beneficiaries is being produced. Agroforestry support will combine the best available knowledge on agroforestry systems, particularly those applied to miombo ecosystems. Exchange events with experiences in neighboring countries are being organized to this end.

77. **The project's interventions to promote sustainable natural forest management are based on a widely accepted diagnosis, analysis, and validation of the problems and ways forward among a wide stakeholder base and on multiple studies by national and international experts.** An underlying understanding of the causes of deforestation and forest degradation has driven the selection of key areas of intervention with the predicted highest effect while recognizing the limitations of what can be achieved with given resources and under the circumstances. Drawing from international experiences and inputs from experts, it has become clear that major changes to policies and practices are needed to turn the current "mining" of native forests into sustainable management.

The project draws on many of these experiences in its design, which has been validated in multiple fora. The state of exploitation of the country's native forests is a result of many failures and weaknesses, not necessarily all of which will be amendable in the given time frame, and behind these are enabling structures that may be beyond the reach of project interventions. Nevertheless, it is believed that, through the project's interventions in the sector, a transformation in the sector can be initiated.

C. Financial Management

78. **The conclusion of the review of the proposed financial management arrangements**[31] **was that** the UGFI will need to implement a few measures, including the elaboration of a financial management procedures manual as part of the Project Implementation Manual (PIM), registering the project in the government's budget, particularly for reporting on use of the funds because project funds will not flow through the government's Single Treasury Account. The external audit will be of the overall responsibility of the Administrative Tribunal (AT), which is constitutionally mandated to audit all government funds, although this audit may be subcontracted to a private audit firm. The proposed financial management arrangements, as summarized in Annex 3, meet the requirements for financial management under OP/BP 10.00.

D. Procurement

79. **Procurement for the proposed project will be conducted in accordance with the WB's** "Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014 and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011, revised July 2014 and the provisions stipulated in the legal financing agreement.

80. **The UGFI will implement the proposed project within FNDS, recently created under MITADER.** The UGFI procurement unit includes six technicians (one procurement officer, four procurement assistants, one procurement technician from UGEA, and one senior procurement specialist) to implement the two WB-financed projects and manage the government budget. This unit may be responsible for more operations in the future, so an additional procurement assistant will be required for the MozFIP project.

81. **The procurement assessment acknowledges that UGFI was created with the aim of managing all international financing received under MITADER.** The procurement activities of the Agriculture and Natural Resources Landscape Management Project have exposed the procurement team to the WB's fiduciary procedures and to the complex procurement processes in the selection of consulting services.

[31] Conducted in accordance with the Financial Management Manual issued by the Financial Management Sector Board in March 2010, with the objective to determine whether the UGFI has acceptable and adequate financial management arrangements to ensure reliability of financial reporting; effectiveness and efficiency of operations; and compliance with legal covenants, laws, and guidelines.

82. **The risk mitigation measures for the project include the recruitment of one procurement assistant to be assigned to this project** and to seek further stabilization of the UGFI. More-detailed procurement arrangements for the project are available in Annex 2.

E. Social (including Safeguards)

83. **The proposed project is rated as Category B, since potential environmental and social impacts are localized and easily manageable.** MozFIP triggers the social safeguard OP/BP 4.12 (Involuntary Resettlement) because the activities that the project finances may restrict communities from accessing land and natural resources. There will be no physical resettlement. As to economic compensation for planted forest activities, there will be no compensation, as participation in project activities is voluntary and based on voluntary agreements between parts. The Process Framework and the Environmental and Social Management Framework (ESMF) identifies and set procedures to address these issues, based on social participation and community integration

84. **Restriction of access to land and natural resources in legally designated protected areas (economic resettlement) will be dealt with through a Process Framework (PF).** MozFIP will use an updated version of the Process Framework that was approved, disclosed in July 2014, and that is currently implemented by the MozBio project, which target the same protected areas as those supported by MozFIP, namely Quirimbas National Park and Gile National Reserve. The PF will provide guidance and tools to be used by implementers, beneficiaries and Project Affected People (PAPs) to identify and mitigate any change in living standards of PAPs.

F. Environment (including Safeguards)

85. **The project triggered OP/BP 4.01, Environmental Assessment, largely because the proposed activities under Component 1 may lead to some adverse environmental and social impacts.** These expected negative environmental and social effects associated include soil erosion, soil disturbance, vegetation clearance, and degradation of water quality and quantity. The ESMF sets procedures to identify, manage, implement monitor and report project adverse environmental and social impacts.

86. **The landscapes in the project include protected areas: the Gilé National Reserve and Quirimbas National Park. OP/BP 4.04 Natural Habitats is triggered, as** agroforestry activities may be promoted within the Quirimbas National Park – but only in areas zoned as community development areas, in accordance with the approved management plan of this CA. The ESMF includes provisions for mitigation and compensation of potential impacts on natural habitats from forest plantations. Conversion of critical natural habitats will not be financed. In case non-critical natural habitats are converted, compensation measures will be implemented, such as restoration of degraded land. Any non-critical habitat conversion must aim to enhance sustainable development of the area/community, improve landscape and land use sustainable management, hence enhancing ecosystem services.

87. **OP/BP 4.36 on Forests was triggered because some of the proposed activities will involve forest management and forest restoration.** Overall, MozFIP activities are expected to have significant positive impacts on forests in the targeted areas. Potential adverse impacts of MozFIP interventions on natural forests will be identified, assessed and managed under the ESMF. The project will provide

technical assistance to different actors (including community members and forest operators) on sustainable natural forest management, including TA for them to obtain sustainable forest management certification.

88. **To ensure compliance with the safeguard policies, the borrower disclosed the ESMF and PF in-country and in InfoShop on January 18, 2017.** The ESMF provides essential guidance for the government to follow before and during project implementation to ensure adequate monitoring and reporting of the safeguards requirements. The ESMF also includes an environmental and social screening form and a set of environmental and social clauses for project implementers.

G. Other Safeguard Policies

Safeguard Policies	
Environmental Assessment OP/BP 4.01	Yes
Natural Habitats OP/BP 4.04	Yes
Forests OP/BP 4.36	Yes
Pest Management OP 4.09	Yes
Physical Cultural Resources OP/BP 4.11	Yes
Indigenous Peoples OP/BP 4.10	No
Involuntary Resettlement OP/BP 4.12	Yes
Safety of Dams OP/BP 4.37	Yes
Projects on International Waterways OP/BP 7.50	No
Projects in Disputed Areas OP/BP 7.60	No

H. World Bank Grievance Redress

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit *http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service*. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY : Mozambique
Mozambique Forest Investment Project

Project Development Objectives

The Project Development Objective is to improve the practices and enabling environment for forest and land management in Targeted Landscapes.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Land area where sustainable land mgt. practices were adopted as a result of proj	✓	Hectare(Ha)	0.00	906500.00	Annual	Field visits and field records, records of the national forest certification entity, Management Effectiveness Tracking Tool (METT)	MITADER (FNDS, DINAF, ANAC) and Service Providers
Area of planted forests established		Hectare(Ha)	0.00	3000.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider
Area of agroforestry systems established		Hectare(Ha)	0.00	1500.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Area under forest management for charcoal production		Hectare(Ha)	0.00	2000.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider
Area of forest concessions under sustainable forest management		Hectare(Ha)	0.00	50000.00	Annual	Records of national forest certification entity	MITADER (DINAF) and Service Provider
Conservation areas under improved management in the landscapes		Hectare(Ha)	0.00	850000.00	Annual	Management Effectiveness Tracking Tool (METT)	ANAC
Description: This indicator measures the land area that as a result of the Bank project incorporated and/or improved sustainable land management practices. This indicator can track progress toward sustainability at farm scale and at landscape scales within agroecological zones, watersheds, or basins. The baseline value for this indicator is expected to be zero.							
Name: Land users adopting sustainable land mgt. practices as a result of the project	✓	Number	0.00	3302.00	Annual	Field visits and field records, records of the national forest certification entity	MITADER (FNDS, DINAF) and Service Providers
Planted forest landholders		Number	0.00	100.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Of which female		Percentage	0.00	30.00			
Agroforestry system holders		Number	0.00	3000.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider
Of which female		Percentage	0.00	50.00			
Charcoal producers		Number	0.00	200.00	Annual	Field visits and field records	MITADER (FNDS) and Service Provider
Of which female		Percentage	0.00	10.00			
Forest concession holders		Number	0.00	2.00	Annual	Records of the national forest certification entity	MITADER (DINAF) and Service Provider

Description: This indicator measures the number of users adopting sustainable management practices in the project areas. To measure this indicator, formal survey should be carried out at regular intervals, as well as at the end of the project. The baseline value is expected to be zero.

Name: Average score in targeted landscapes from forest governance assessment		Number	1.00	3.00	Biennially	Forest governance assessments	MITADER (FNDS) and Service Providers

Description: This indicator reflects the score from forest governance assessment, based on a scoring scale of 1 to 5. This indicator measures the strength of forest governance as perceived by forest stakeholders in the project area. It is an aggregate of various issues that contribute to forest governance. These issues and their

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
relevant indicators are in Annex 4. The assessment is adapted from the FAO and PROFOR Framework for Assessing and Monitoring Forest Governance. The scores will be derived from participatory, multi-stakeholder assessments conducted in Zambezia and Cabo Delgado every two years.							
Name: Share of target beneficiaries satisfied with information about and their participation in forest and land-use decisions that affect them		Percentage	0.00	70.00	Mid-term and at end of Project	Focus groups and surveys	MITADER (FNDS) and Service Providers
Of which female		Percentage	0.00	30.00			
Description: This indicator measures the perception of project beneficiaries of the extent to which they are able to engage and participate in forest and land-use decisions, whether through specific project interventions or as a result of the expansion of such opportunities generally in the project landscapes.							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: National Land Use Plan submitted for Government's adoption		Yes/No	N	Y	Annual	Official memo on the submission of the NLUP	MITADER (DINOTER)
Description: This indicator measures the development and eventual adoption of the National Land Use Plan. Y1 – No; Y2 – Baseline data collected; Y3 – draft NLUP consulted; Y4 – final NLUP prepared; Y5 – Final NLUP submitted for approval by the government							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: National forest information system operational		Yes/No	N	Y	Annual	Online platform of the forest information system	MITADER (DINAF)
Description: This indicator measures the development and operationalization of a national forest information system. Operational is defined by the following goals: Y1- Data needed for the system collected. Y3- System designed and established. Y5- System and data accessible to relevant data users and stakeholders.							
Name: Forest concessions inspected annually		Percentage	0.00	100.00	Annual	Field inspection records	MITADER (AQUA)
Description: This indicator measures effectiveness of forest and enforcement institutions, and an aspect of legality through compliance with forest management plans.							
Name: Forest operators in targeted landscapes with scoring of at least 80 in government's assessment of forest operators		Percentage	40.00	65.00	Biennially	Forest operator evaluations	MITADER (DINAF) and Service Providers
Cabo Delgado		Percentage	30.00	60.00	Biennial	Evaluation reports	MITADER (DINAF) and Service Providers
Zambezia		Percentage	50.00	70.00	Biennial	Evaluation reports	MITDER (DINAF) and Service Providers

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: This indicator measures the performance of forest operators against criteria of legal and basic sustainability requirements. The criteria is defined by a multi-stakeholder group and covers: Compliance with fiscal obligations, social security, having an approved management plan, qualified rangers, concession contract, availability of statistical information, inspection of industrial plans, technical capacity, delimitation of area and harvesting blocs, and reforestation. Operators are scored to a maximum of 100. The assessment will be held every two years.							
Name: Community Delimitation Certificates issued		Number	0.00	160.00	Annual	Land registry or records from the provincial land administration service	MITADER (DINAT) and Service Providers
Description: This indicator measures the number of community delimitation certificates issued as a result of the Project.							
Name: Completion of activities in the annual Strategic Action Plans of the Multi-Stakeholder Landscape Forums (MSLF)		Percentage	0.00	80.00	Annual	Strategic Action Plan of each MSLF	MITADER (FNDS)
Description: This indicator measures the achievement of the MSLFs of their strategic action plans, which are work plans developed and agreed upon jointly by members of the MSLFs.							

Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Land area where sustainable land mgt. practices were adopted as a result of proj	0.00	0.00	2400.00	880200.00	880900.00	906500.00	906500.00
Land users adopting sustainable land mgt. practices as a result of the project	0.00	0.00	1935.00	2614.00	3051.00	3302.00	3302.00
Average score in targeted landscapes from forest governance assessment	1.00		2.00		3.00		3.00
Share of target beneficiaries satisfied with information about and their participation in forest and land-use decisions that affect them	0.00	0.00	0.00	50.00	0.00	70.00	70.00
Area of planted forests established	0.00	0.00	1000.00	3000.00	3000.00	3000.00	3000.00
Area of agroforestry systems established	0.00	0.00	900.00	1200.00	1400.00	1500.00	1500.00
Area under forest management for charcoal production	0.00	0.00	500.00	1000.00	1500.00	2000.00	2000.00
Area of forest concessions under sustainable forest management	0.00	0.00	0.00	25000.00	25000.00	50000.00	50000.00
Conservation areas under improved management in the landscapes	0.00	0.00	0.00	850000.00	850000.00	850000.00	850000.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Planted forest landholders	0.00	0.00	60.00	100.00	100.00	100.00	100.00
Agroforestry system holders	0.00	0.00	1800.00	2400.00	2800.00	3000.00	3000.00
Charcoal producers	0.00	0.00	75.00	113.00	150.00	200.00	200.00
Forest concession holders	0.00	0.00	0.00	1.00	1.00	2.00	2.00
Of which female	0.00						30.00
Of which female	0.00	0.00	30.00	30.00	30.00	30.00	30.00
Of which female	0.00	0.00	50.00	50.00	50.00	50.00	50.00
Of which female	0.00	0.00	10.00	10.00	10.00	10.00	10.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
National Land Use Plan submitted for Government's adoption	N	N	N	N	N	Y	Y
National forest information system operational	N	N	N	Y	Y	Y	Y
Forest concessions inspected annually	0.00	0.00	50.00	70.00	85.00	100.00	100.00
Forest operators in targeted landscapes	40.00		53.00		65.00		65.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
with scoring of at least 80 in government's assessment of forest operators							
Community Delimitation Certificates issued	0.00	0.00	80.00	112.00	136.00	160.00	160.00
Completion of activities in the annual Strategic Action Plans of the Multi-Stakeholder Landscape Forums (MSLF)	0.00	0.00	55.00	60.00	70.00	80.00	80.00
Cabo Delgado	30.00	0.00	45.00	0.00	60.00	0.00	60.00
Zambezia	50.00	0.00	60.00	0.00	70.00	0.00	70.00

ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY: Mozambique
Mozambique Forest Investment Project

Project Strategy

1. **MozFIP activities will address the main causes of deforestation and initiate a transformation process in the forest sector toward more sustainable forest management with enhanced benefits to local communities.** MozFIP will finance activities at two levels: landscape-level activities focused on promoting integrated management and national-level activities focused on strengthening forest governance and creating enabling conditions for transformative change in forests and landscape management. MozFIP follows an integrated landscape management approach and as such promotes activities in different sectors (forestry, agriculture, and energy) linked to the major drivers of deforestation and involves different stakeholders.

2. **At the landscape level, the project will contribute to improving rural livelihoods in two targeted landscapes by working with land delimitation and planning, promoting multi-purpose forest plantation agro-forestry systems and sustainable charcoal production.** The project will promote a strong base for inclusive and participatory engagement with rural populations and stronger local land tenure, to allow communities to benefit from economic opportunities offered through the project.

3. **At the national level, activities will promote sustainable forest management, including national-level land-use planning, stronger forest governance, inspection, detection and compliance; and support for reform management regulations and practices.** National-level land-use planning is fundamental for the country in addressing the trade-offs of land-use allocation, particularly with growing populations and expansion of land-based activities such as agriculture, mining, and livestock. Strong forest governance is fundamental for effective and transparent resource management and for encouraging improved forest management practices.

Project components

4. The project is structured around three components as detailed below.

Project Components	Financing (US$, million)
Component 1: Promoting Integrated Landscape Management	**19.1**
Regularizing land tenure, promoting community-level land use planning and promoting integrated landscape management tools	3.7
Promoting Multipurpose Planted Forests, Agroforestry Systems and Sustainable Charcoal Production	15.4
Component 2: Strengthening the Enabling Conditions for Sustainable Forest Management	**20.2**
Developing the National Land Use Plan	5.0
Strengthening Forest Governance	10.8
Strengthening Natural Forest Management	4.4
Component 3: Project Coordination and Management	**7.7**
TOTAL	**47.0**

Component 1: Promoting Integrated Landscape Management (US$19.1 million)

5. **This component will promote integrated landscape management in the Cabo Delgado and Zambezia landscapes to address the most important drivers of deforestation while reducing rural poverty.** It will support the regularization of land tenure, promote land-use planning, integrated landscape management tools, multipurpose planted forests, agroforestry systems, and sustainable charcoal production.

C1.1 - Regularizing land tenure, promoting community-level land-use planning and promoting integrated landscape management tools (US$3.7 million)

6. **This sub-component will regularize land tenure and promote community-level land-use planning and integrated landscape management tools** to strengthen land tenure of local communities and of small and medium landholders, to improve local communities' capacity to plan the use of natural resources over which they have rights and to enhance the capacity of local actors on land-use planning and on multi-stakeholder planning. This will be achieved by provision of support for the land delimitation of approximately 160 communities, including the issuance of approximately 160 community delimitation certificates, preparation of approximately 160 community-level land-use plans, and strengthening of community-based organizations (CBOs) by financing consultancies, operational costs, and equipment acquisition; issuance of approximately 3,100 DUATs to small and medium landholders engaged in forest plantations and agroforestry by financing consultancy and operational costs; provision of institutional support to the provincial land administration service in Cabo Delgado by financing office equipment, infrastructure rehabilitation and maintenance of the land management system; strengthening of MSLFs in Zambézia and Cabo Delgado to facilitate multi-stakeholder coordination and dialogue by financing the operational costs of such forums; and promoting the use of geospatial tools at the provincial and district levels to improve land-use planning through the acquisition of equipment and training in targeted provinces and districts.

C1.1.1. Community Land Delimitation

7. **This activity is expected to strengthen the land rights of communities and the capacity of CBOs through community land delimitation.** Stronger community land rights are expected to increase incentives for investments in long-term land use and for adoption of sustainable land use practices and to lead to greater benefits to local communities from their natural resources, including through win-win partnerships with the private sector.

8. **Community land delimitation is a cost-effective instrument for increasing the land tenure security of a large number of rural households.** The delimitation identifies where local land rights exist (the collective ones of the local communities and the more-individualized DUATs that households or associations hold) and ensure these rights are officially registered. By including the development of community-level land-use plans[32], community land delimitation also facilitates the identification of land areas that communities are prepared to allocate to investors through negotiated partnerships or other agreements.

[32] Community-level land use plans must include, at a minimum, the following land use classes: agricultural area (current and for expansion), grazing area (current and for expansion), residential areas (current and for expansion), partial and total protection areas (according to Mozambican law), areas aimed at the exploration of multiple resources (e.g., timber and non-timber products, fauna), and areas for the development of new investments (including areas that communities would be prepared to grant negotiated access to external investors).

9. **The project will finance service providers** to conduct the delimitation, preparation of community-level land use plans and training of community members. The outputs include: approximately 160 community land certificates delivered; approximately 160 community-level land use plans prepared; capacity building activities (trainings, knowledge exchange across communities, etc.) delivered. The targeted beneficiaries are communities within the targeted landscapes whose land has not yet been delimited.[33]

C1.1.2 - Issuance of Individual DUATs

10. **Issuing individual DUATs to the beneficiaries of the Planted Forests Grant Scheme is expected to encourage the adoption of improved land-use practices**. This will also contribute to the GoM's *Terra Segura's* ambitious targets to increase coverage of DUATs.

11. **This activity will finance** service providers and the costs associated with issuing individual DUATs to small and medium landholders. The output will be approximately 3,100 individual DUATs issued to project beneficiaries. A service provider will be recruited to implement this activity.

C1.1.3 - Institutional support to the provincial land administration service in Cabo Delgado

12. **This activity aims to increase the efficiency of the Cabo Delgado's land administration service (SPGC) in securing land rights in the province.** The delivery of community delimitation certificates and individual DUATs are heavily dependent on District Cadaster and Land Registration Services and the Provincial Services of Geography and Cadaster (*Serviços Provinciais de Geografia e Cadastro* (SPGC)).

13. **The project will finance office equipment and infrastructure rehabilitation as well as maintenance of the land management systems in the province.**[34] The outputs will be office equipment, rehabilitated infrastructure and a functional land management system in the province.

C1.1.4 - Multi-Stakeholder Landscape Forums (MSLFs) in Cabo Delgado and Zambezia

14. **This activity aims to foster a common vision for management of the landscape across stakeholders.** This common vision can contribute to more sustainable land-use decisions. The MSLFs will disaggregate this common vision into implementable Strategic Action Plans that the project team will monitor. The project will encourage participation of women, youth, and other vulnerable groups in the forum.

15. **The project will finance the operational costs (venue rental, per diems of participants)** from the organization of such forums. The output will be operational MSLFs in the targeted landscapes.

C1.1.5 - Geo-spatial tools at the provincial and district levels

16. **This activity aims to improve land-use planning at provincial and district levels.** Spatial planning allows trade-offs over land allocation to be discussed among stakeholders and better decisions to be

[33] Based on national averages and available data from the National Institute of Statistics, the project area has an estimated number of 403 communities, with more than 116 of them already delimited. It is estimated that, by excluding the Zambezia districts benefiting from the Bank-financed Agriculture and Natural Resources Landscape Management Project, reaching the project goal of delimiting 160 communities in the remaining area of coverage of MozFIP will enable nearing the delimitation of all communities in the said area.

[34] The Agriculture and NR Landscape Management project will support Zambezia's SPGC.

made. Spatial tools include new technologies (use of geographic information systems, for instance) and participatory approaches.

17. **The project will finance** training for relevant stakeholders in the use of spatial planning tools and data management. The outputs include trainings and equipment needed for spatial planning.

C1.2 - Promoting Multipurpose Planted Forests, Agroforestry Systems, and Sustainable Charcoal Production (US$15.4 million)

18. **This sub-component will establish multipurpose forest plantations** (sawn wood, poles, wood chips, charcoal, pulp) by local communities, small- and medium-landholders, restore degraded areas, promote agroforestry systems among small landholders, and promote sustainable production of charcoal.

C1.2.1 - Planted Forests Grant Scheme

19. **The goal of the grant scheme is to generate economic opportunities by promoting commercial tree plantations, to restore degraded areas, and to link wood producers and markets.** The scheme aims to establish approximately 3,000 hectares of sustainable, multipurpose plantations and the restoration of around 500 hectares of degraded land through a performance-based grants scheme. Through this scheme, the project will provide performance-based grants and technical assistance to small and medium landholders and inputs to communities for the establishment and maintenance of multipurpose plantations and the restoration of degraded lands.

20. **The development of well-planned, sustainable small and medium-sized forest plantations[35] can generate social and environmental benefits**. Forest plantations are increasingly recognized for their important role in supplying the growing global demand for wood and wood products, including hardwood timber for furniture, general purpose and construction timber, transmission poles, and other products such as sustainable charcoal. Wood product imports in Mozambique were estimated at US$68 million in 2010 (2.3 percent of total imports) and US$85 million in 2011. These figures reveal the potential of the domestic market to supply a variety of wood products and reduce reliance on imports. Under the right circumstances, the plantation sector can supply raw materials to meet domestic demand and to support a major export industry. Plantation investments can support rural economic growth and diversification, providing employment for smallholders through a variety of arrangements, including throughout-grower arrangements between companies and smallholders. The restoration benefits of these endeavors may also contribute to ecological gains.

21. **The project will finance** part of the establishment costs of the plantations (land preparation, access to planting material, transportation, planting), part of the plantation maintenance costs, technical assistance, monitoring and verification costs. The establishment and maintenance costs will be financed through performance-based grants[36], disbursed in regular installments during the initial years of plantation establishment**.** Disbursements are made only if minimum performance standards (as defined in the PIM) are achieved. These standards include verified compliance with good silvicultural practices, respect to the agreed social and environmental rules, labor regulations, among others. A service provider will be recruited to support the implementation of this activity. This service provider

[35] In the context of this PAD, plantations designate forest and tree stands established by planting and seeding of natural and exotic species for purposes ranging from commercial and domestic uses to restoration and conservation.
[36] Performance-based disbursements are calculated on the basis of predetermined costs, covering percentages of an estimated plantation establishment cost per unit of area.

will conduct field verifications before disbursements can be made. The LCUs will make additional visits to verify the quality of the performance assessments and other work under the responsibility of the service provider. The grants will be delivered in cash to small and medium landholders beneficiaries, and in kind to communities.

22. **The grant scheme will promote several models of reforestation, from purely commercial stands with eucalyptus or pine to mixed stands with natural and introduced species.** Eligibility for the grant scheme depends on commercial viability and will be assessed against a set of clear criteria. Eligible proposals will include local communities, small and medium landholders. Minimum and maximum area size will be detailed in the PIM. Beneficiaries can participate individually or in association with other landholders. Beneficiaries in the Zambezia landscape will be prioritized given better market and climatic conditions for plantations. Beneficiaries will enter into a contract with FNDS as an agreement to benefit from the scheme.

23. **The project will support restoration of degraded areas.** Potential areas for restoration will be indicated in the forest management plans that potential beneficiaries prepare to request funding from the scheme. The scheme would provide additional incentives (grants) to encourage restoration, which could include activities such as reforestation with native species, protection and rehabilitation of riparian forests and assisted natural regeneration.

24. **The scheme will be implemented through an institutional set-up as follows:**

    a. The service provider will be responsible for technical and fiduciary aspects: developing technical booklets and handbooks for the scheme, providing technical opinions for the evaluation committee on received applications, making technical assistance visits to beneficiaries, attesting to the compliance or noncompliance of beneficiaries with agreed performance standards, developing and disseminating communication material, providing autonomous accounting for the scheme; performing financial analysis of proposals and issuing a financial evaluation for the evaluation committee, managing the scheme's disbursements to performing beneficiaries, and conducting financial reporting.

    b. The evaluation committee will be responsible for, among other tasks, assessing the financial and technical viability of eligible proposals and providing conditional financing approval, monitoring the scheme's implementation progress, and providing strategic advice to the FNDS and service provider.

    c. These entities will report to and be under the technical and fiduciary oversight of FNDS and the LCUs at the provincial level.

25. **The outputs** include approximately 3,000 hectares of multipurpose planted forests and 500 hectares of restored land**.**

C1.2.2 - Agroforestry systems

26. **This activity aims to reduce the expansion of slash-and-burn agriculture by smallholders and to boost their well-being.** The project will promote agroforestry systems on approximately 1,500 ha by smallholders through the provision of technical assistance and agroforestry inputs to beneficiaries. Implemented as a pilot, this activity targets individual smallholder producers and informal and formal producer groups – including associations and cooperatives – with an initial goal of reaching approximately 3,000 producers.

27. **Small producers are largely responsible for deforestation caused by shifting cultivation (slash-and-burn agriculture).** Agroforestry systems are envisaged as a way to improve yields and boost basic food security for subsistence farmers, while also reducing shifting cultivation and thus pressure on natural forests. Trees can be planted and managed to address domestic and market requirements related to biomass energy, wood, fruit, and other non-timber products while contributing to greater agriculture productivity by enhancing organic matter in the soil and promoting a better ecosystem for agents needed for sustainable production (e.g. pollinator agents). As such, there would be less need to clear forests for agriculture. Trees also play an important role in the adaptation to and mitigation of climate change, because they help secure vital ecosystem services (e.g., soil fertility, water quality and regulation) and sequester carbon.

28. **The project will finance** agroforestry system inputs (seeds, tree seedlings, tools, fuel) and technical assistance to the targeted beneficiaries. Beneficiaries will require strong technical assistance given the limited experience in Mozambique with agroforestry systems. A service provider will be recruited to provide the required technical assistance and facilitate market access. A small number of nurseries identified near agroforestry system clusters will receive technical assistance to ensure that they meet the needs of agroforestry beneficiaries. The outputs are approximately 1,500 hectares of agroforestry systems established.

C1.2.3 - Sustainable charcoal production

29. **This activity aims to increase wood transformation efficiency into charcoal and to reduce overall use of wood for biomass fuel by supporting sustainable charcoal production.** The project will promote charcoal producers organizations to adopt forest management plans**,** promote higher efficiency in charcoal production, and build partnerships between producers and private operators in the forest sector to integrate charcoal production into forest operations.

30. **Charcoal is the most important miombo forest product in terms of market volume.** The project will focus on the upstream, production segment of the charcoal value chain. Experience in Mozambique has shown that the most-basic more-efficient kilns could improve efficiency by approximately 15 percent. Although not affording maximum efficiency gains, this basic level of technology is most appropriate to encourage higher rates of adoption at an early stage. These kilns would be constructed of materials that are accessible in the areas. In addition, the use of waste from forest exploration and sawing is an important source of wood, currently under used.

31. **The activity will begin with the identification of charcoal producers in the region to encourage their organization into producer groups, whether in associations, cooperatives, or community enterprises**. In this initial phase, the areas where charcoal exploration can take place in an organized manner will be mapped. Organized producer groups would be supported to create inventories and management plans in the areas of exploration. This sub-component will be implemented by a service provider who will be responsible for providing technical assistance in production methods and monitoring producers in applying these methods. They would also coach producers on developing and implementing management plans, product marketing, research and identification of financing and partnership opportunities, introduction of and capacity building in the use of efficient kilns, creating links to markets, and assistance in the certification process.

32. **The project will finance** preparation of four forest management plans for charcoal production, the use of alternative sources of wood for charcoal production, and training and assistance in the use of more-efficient charcoal-making kilns to charcoal producer organizations and individual producers. The project will finance consultancy, operational costs, and equipment acquisition. The outputs

include four forest management plans for charcoal production and more efficient kiln construction and operation, acquisition of licenses for biomass exploration, and 200 charcoal producers using improved kiln technologies.

Component 2: Strengthening the Enabling Conditions for Sustainable Forest Management (US$20.2 million)

33. **The objective of this Component is to improve the enabling conditions in the forest sector to promote sustainable forest management.** Activities will promote the development of the national land use plan, strengthen forest governance and promote sustainable forest management initiatives.

C2.1 - Developing the National Land Use Plan (US$5 million)

34. **This sub-component aims to promote long-term sustainable land use decisions through the development of Mozambique's National Land Use Plan (NLUP).** Proper land use planning and the enforcement of these plans can allow the country to maximize the value of different land uses, taking into account several variables such as economic return and conservation of ecosystem services (carbon storage, biodiversity habitats, etc.). Land use planning is particularly important in the face of expected future developments in the country, such as new infrastructures and expansion of commercial agriculture and forestry.

35. **The NLUP will be prepared in the following phases:** i. diagnosis of the current characteristics of the national territory; ii. identification of strategic options for spatial development; iii. preparation of a national spatial development plan, including preparation of detailed maps for the proposed model and the development of a dynamic modeling platform for simulating future trajectories of land use and land use change, and for assessing policy and investment options to achieve socio-economic and environmental objectives; iv. preparation of the first proposal of the NLUP; v. preparation of the final NLUP. Public consultations in all provinces will be conducted throughout the exercise. The NLUP development will be under the technical supervision of the National Directorate of Land Use Planning and Resettlement (DINOTER) within MITADER, and will be overseen by an inter-ministry committee to be established by the Council of Ministers. The NLUP has to be approved by the National Assembly to be legally in force. A service provider will be hired to develop the NLUP, under the supervision of DINOTER.

36. **The ongoing WB TA project "Land Use Planning for Enhanced Resilience of Landscapes" (LAUREL) will contribute to the NLUP.** LAUREL will develop a prototype modeling platform for simulating in a spatially explicit way future land use and land use change; and subsequently, through TA support towards the integration of the prototype platform (suitably upgraded as needed to improve the quality and coverage of the data used in the prototype platform) into the final version of the NLUP.

37. **The project will finance consultancy and operational costs associated with the consultations.** The output of this activity is an agreed and consulted National Land Use Plan, augmented with a dynamic simulation platform. The latter will assist the Government in evaluating how alternative policy and investment options can achieve the NLUP overarching objectives, thereby contributing the formulation of sector strategies and action plans consistent with the NLUP, as well as informing periodic updates of the NLUP itself**.**

C2.2 - Strengthening Forest Governance (US$10.8 million)

38. **The sub-component will support sustainable forest management practices and the enabling conditions for sustainable forest management leading to reduced forest-related crimes and illegal activities in the sector and to increase benefits to government, local communities and forest operators.** This sub-component will address the main forest governance constraints in the forest sector by improving information management, monitoring and law enforcement in the forest sector, increase institutional transparency and accountability across relevant institutions, create the mechanisms for improving participatory decision-making in the sector, and build the skills base and capacity of forest stakeholders around sustainability principles. Activities will mainly support the newly created National Agency for Environmental Quality and Control (AQUA) at the national level and in the two priority provinces, including their relation with other relevant institutions (justice, border control authorities, etc.), DINAF and SPFEB at the provincial level and the National Conservation Areas Agency (ANAC) responsible for law enforcement within conservation areas.

C2.2.1 - Forest sector patrolling and inspection, prevention and detection

39. **This activity will improve patrolling, inspection, infractions prevention and detection in forested areas through support to the national forest law enforcement institutions (particularly AQUA and ANAC)**[37]. AQUA is a recently-established institution and will need support for strategic planning and identification of priorities to focus its limited resources on the key law enforcement locations, topics or forest operators. ANAC is responsible for managing conservation areas, which hold extensive forest cover and other types of biodiversity.

40. **The project will finance**: training and technical assistance on planning and monitoring for AQUA, including to strengthen coordination with other institutions involved in law enforcement (ANAC, DINAF, customs, etc.); capacity strengthening of forest rangers at AQUA and ANAC; equipment, staff, training and operational costs (utility costs, fuel, communications) for the establishment of AQUA's provincial delegations in Zambezia and Cabo Delgado; and equipment and operational costs (food, fuel, communications) for management of two conservation areas (Gile National Reserve and the Quirimbas National Park).

41. **The outputs include:** an action plan for forest law enforcement for AQUA; a comprehensive technical assistance package for AQUA; AQUA delegations in Cabo Delgado and Zambezia established and operational; and forest rangers at AQUA and ANAC duly fulfilling their duties. A service provider will be recruited to prepare the forest law enforcement action plan and to support AQUA in implementing it.

C2.2.2 - Forest information system

42. **This activity aims to increase transparency and accountability in the sector by providing updated geo-referenced information on forest licensing, forest management plans implementation, inspection and law enforcement.** A comprehensive, accessible and updated information base on all aspects related to the forest resource and value chain is central to effective management, and is currently inexistent in Mozambique**.** The proposed system will digitize and store

[37] The financing will categorically exclude any kind of support for activities that are prohibited by the Bank's policies and rules as outlined in "Legal Vice Presidency Annual Report FY 2013: The World Bank's Involvement in the Criminal Justice Sector of February 9, 2012.

geo-referenced data on forest licensing, management plans and annual harvesting allowance, inspection, enforcement and control contracts, and be able to elaborate several types of reports. It will also connect with the forest cover monitoring, reporting and verification system (MRV) (under preparation with FCPF financial support) to report on land use changes and carbon emissions and eventually on other variables. This information system will also be connected to other relevant institutions responsible for law enforcement and management of forest resources, e.g. police and port authorities, ANAC and AQUA.

43. **The project will finance equipment and consultancies**. A service provider will be recruited to design, implement the system and train government officials on its use. The output will be a functional and operational forest information system.

C2.2.3 - Transparency and multi-stakeholder dialogue in the forest sector

44. **This activity aims to improve decision-making in the forest sector by promoting citizen engagement in a National Forest Forum and regular and participatory evaluations of the forest sector.** The National Forest Forum is an entity formally created and steered by DINAF. It is composed of different forest stakeholders, including government, private sector, CSOs and academia. It has the objective to facilitate policy dialogue amongst stakeholders to reach consensus and serve as a national consultative platform on key forest-related issues, e.g. national forest certification, the national forest operators' audit, forest governance assessments and reform of the forest concession management model.

45. **The regular assessment of forest governance aims** to monitor the effectiveness of forest institutions, regulations and their capacity. A first forest governance assessment was conducted in August and September 2016 in both provinces, financed by PROFOR, which serves as a baseline for the Project. DINAF held in 2015 a nation-wide evaluation (audit) of 154 forest concessionaires and 727 simple license holders to assess their compliance against a set of criteria based primarily on national legislation. This first evaluation, which also serves as a baseline of the performance of forest operators for the Project, revealed low levels of compliance of the sector with national legislation.

46. **The project will finance** the operational costs (venue rental, per diems, and coffee breaks) of the National Forest Forum, and the costs associated with conducting the forest governance assessment biannually, including a consultancy firm. DINAF will manage the overall execution of this sub-component**.** The outputs include a functioning multi-stakeholder National Forest Forum, and biannual assessments on forest governance and forest operators prepared and disclosed.

C2.3 – Strengthening Natural Forests Management (US$4.4 million)

47. **This sub-component aims to ensure sustainable use of forest resources, to increase benefits to local communities, to forest operators and to government, and to add value to forest products**. Improving sustainability in Mozambique's forest sector is an endeavor with a long-term horizon. The challenges in the sector are complex and deeply entrenched and will possibility need more time than the Project implementation period allows. According to a comprehensive evaluation of Mozambique's forest concession operators in February 2016, only 7 concessions (5 percent) were fully compliant with legislation and operational requirements. Most forest management plans are outdated or not implemented, technical capacity is low and concessions lack of investments in regeneration, reforestation or protection activities. A financial viability study revealed at the same

time that current operational practices are very lucrative, because the necessary long-term sustainable management practices are not applied. There is little incentive for operators to develop more sustainable practices as legislation does not require long-term management plans.

48. **The project will finance** provision of technical assistance and training to forest operators and small-scale businesses, and training and technical assistance to forest administration authorities, particularly at the provincial level.

C2.3.1 - Training to forest operators and to forest administration

49. **This activity aims to contribute to sustainable forest management.** The project will support forest operators committed to sustainable forest management in obtaining forest certification and in adding value to forest products. It will also support the forest administration, particularly at the provincial level, on different aspects of forest management, including forest management plan implementation and piloting new forest concession allocation systems. Issues for training include good silvicultural practices, forest inventories and long-term management plans, best practices in forest planning, operations and monitoring, and timber processing.

50. **This activity aims to improve the management of forest concessions,** including strengthening the capacity of DINAF for verifying forest inventories and management plans on the ground, monitoring of compliance of the private sector with their obligations and improving the mapping and remote sensing capacity of local authorities; reviewing the current guidance for the preparation of management plans to forest operators; analyzing options for more transparent and efficient licensing procedures to establish long-term forest concessions, assessing the technical and administrative feasibility of adopting the proposed licensing procedures in selected forest areas.

51. **Forest operators currently prepare low quality management plans, based on inaccurate inventories and maps.** Forest authorities approve forest management licenses without appropriate on-the-ground verification. Operators are often not reprehended when found not in compliance with their obligations. Licensing procedures are opaque and the lack of monitoring activities lead to high levels of illegal logging.

52. **The project will finance** training, operational costs, consultancies, and equipment acquisition. This will include senior technical assistance through a consultancy to DINAF at the provincial level. **The outputs** include a more efficient monitoring system of forest operators on the ground operational, forest management guidance documents revised and disseminated; alternative licensing procedures and concession models identified and tested; forest operators, MSMEs, communities, technical and government staff trained in forest management practices and timber processing.

C2.3.2 - Promotion of small-scale forest businesses

53. **This activity will also support the establishment of community enterprises and micro, small and medium enterprises (MSMEs)** involved in sustainable forest management and forest products transformation (timber and non-timber), such as wood milling and non-timber forest product processing. The project will also support mutually beneficial partnerships between communities and forest operators, building on existing initiatives.

54. **The project will finance** training and technical assistance on sustainable forest management practices and timber processing, equipment, consultancy and operational costs for selected small-

scale sustainable forest businesses. The outputs include three small-scale forest businesses initiated and operational. These small-scale forest businesses could be community enterprises, MSMEs or private-community partnerships.

Component 3: Project Coordination and Management (US$7.7 million)

55. **The objective of this component is to coordinate and monitor project activities and manage financial and human resources in an efficient, results-oriented manner, in accordance with the project's objectives and fiduciary procedures.** This component will finance the additional costs of FNDS related to project management. This includes support for project coordination and management, including fiduciary and safeguards management, M&E, and communications. A project implementation unit (UGFI) has been established at MITADER, with significant capacity at the national level. LCUs with four to six technical staff members are functional in each province. In line with the integrated forest and landscape portfolio approach, FNDS, UGFI, and the LCUs are supporting the implementation of other projects in the provinces. Further details of the role and functions of UGFI and the LCUs are detailed in Annex 2.

56. **This component will support activities related to project coordination and management, including management and monitoring of contracts and oversight of field activities that service providers, technical assistants, and consultants implement.** The component will also support oversight of compliance with the WB's safeguards policies and frameworks and implementation of a grievance redress mechanism.

57. **This component will finance the monitoring, evaluation, and reporting of the project**, including collecting baseline data, contracting service providers for data collection and reporting on indicators, and conducting analyses when needed for supervision and evaluation. It will also finance any necessary audits, the mid-term review and other studies according to the annual work plans and budgets, and any quality oversight needed through independent financial and technical audits.

58. **Project support would strengthen intersectoral communication and coordination** with and within the government and agencies in the project areas, for example, collaboration with the Ministry of Transport and Communications on the integration of spatial forest data into the cross-ministerial national database being prepared. Stronger coordination will also be important for integrating new forest strategies into existing sectoral strategies and plans. For example, integrating lessons learned from conservation agriculture experience into the national rural development strategy or support for the National Biomass Strategy could be ways to leverage FIP resources to influence wider activities of the government.

59. **Communications, consultation, and outreach at all levels of intervention will inform, prepare, and involve stakeholders actively in all stages of the project.** This component will support activities such as development of content and appropriate dissemination methods to increase supply of and access to technical know-how in the target areas. It will also finance consultations throughout project implementation, including public dialogue, consultations, and discussion forums from the national to the community levels. Appropriate communications tools will be used.

60. **The outputs of this activity will be** overall coordination of project implementation, including preparation and implementation of activity plans and budgets; M&E of activity implementation and update information on project progress in all project components and indicators; preparation and management of and full compliance with the project procurement plan and financial management in accordance with WB procedures and guidelines; and management of and compliance with WB

safeguards policies and frameworks. The project will finance consultants, goods, and operational costs; Project Coordination Unit and technical unit operational costs (e.g., salaries, travel expenses, rent, office equipment); capacity building for involved public and private sector entities in key themes (e.g., planning and budgeting); environmental and social safeguards implementation and due diligence; development of a communications strategy and its implementation; and stakeholder consultations and outreach.

ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY: Mozambique
Mozambique Forest Investment Project

Project Institutional and Implementation Arrangements

1. **MITADER's FNDS[38] will be responsible for overall strategic guidance and will coordinate project implementation, particularly through its UGFI.** FNDS will be responsible for technical and financial coordination of the project and will work closely with some of MITADER's technical directorates, mainly DINAF, DINAT, AQUA, and ANAC. FNDS will also coordinate with the following National Directorates in other line ministries: DNAS and DNEA in MASA and FUNAE in MIREME. Each agency and national directorate has appointed someone as a project focal point who will participate in project activities, including in preparation of annual work plans and budgets, annual progress reports, terms of references in their respective areas of expertise, and supervision of actions under their areas of responsibility.

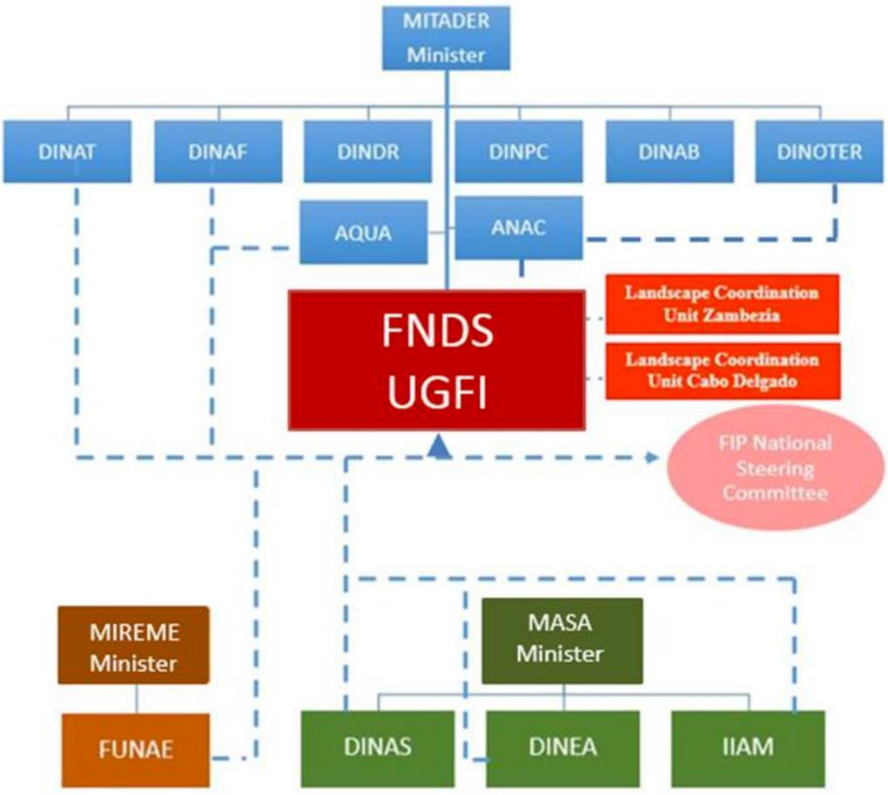


Figure 2: International Funds Management Unit (UGFI)'s linkages to other ministries and directorates

[38] FNDS was created on February 24, 2016, and has the objective of promoting and financing programs and projects that support the sustainable development. FNDS has four units: finance, investments, planning, and the International Funds Management Unit.

2. **Project Oversight. The FIP National Steering Committee (NSC), established in 2015,** comprises government organizations, the private sector, research institutions, and civil society organizations and has the overall mandate to support UGFI in strategic decision-making on the FIP nationally. The Steering Committee shall be chaired by the Recipient's Ministry of Land, Environment and Rural Development ("MITADER") and shall include as members representatives from FNDS, DINAF, AQUA, UEM, MASA, as well as representatives of the private sector, NGOs, development partners and the Steering Committee of the Dedicated Grant Mechanism. The UGFI shall serve as the Steering Committee's Secretariat. The FIP NSC will serve a technical advisory role and provide technical inputs to the MozFIP project, ensure alignment between the project and other government programs, and coordinate with relevant stakeholders. To further strengthen the link between MozFIP and DGM-financed efforts, the FIP NSC will work with the DGM NSC.

3. **The UGFI (housed within the FNDS) will implement the project at the central level.** The UGFI will implement all project activities, including technical supervision and coordination, overall project planning, quality oversight, communication, safeguards management, reporting, procurement, financial management, monitoring of project activities, and regular monitoring of and reporting on its progress. At the central level, the FNDS will be responsible for management of fiduciary matters in conformity with the standards and requirements contained in the legal agreement and agreed upon with the WBG. The UGFI coordinator has appointed a full-time project coordinator for the MozFIP. The UGFI project management team will include a financial manager; a procurement specialist; an accountant; a M&E officer; a communication specialist, a safeguards specialist; and technical specialists for coordination of natural forests, plantations and reforestation, land, agriculture, and biomass. The UGFI will coordinate the work of the focal points from the ministries to ensure their regular participation in project implementation. In addition to participating in the preparation of project annual work plans, the focal points will participate in site visits and discussions with service providers and local authorities.

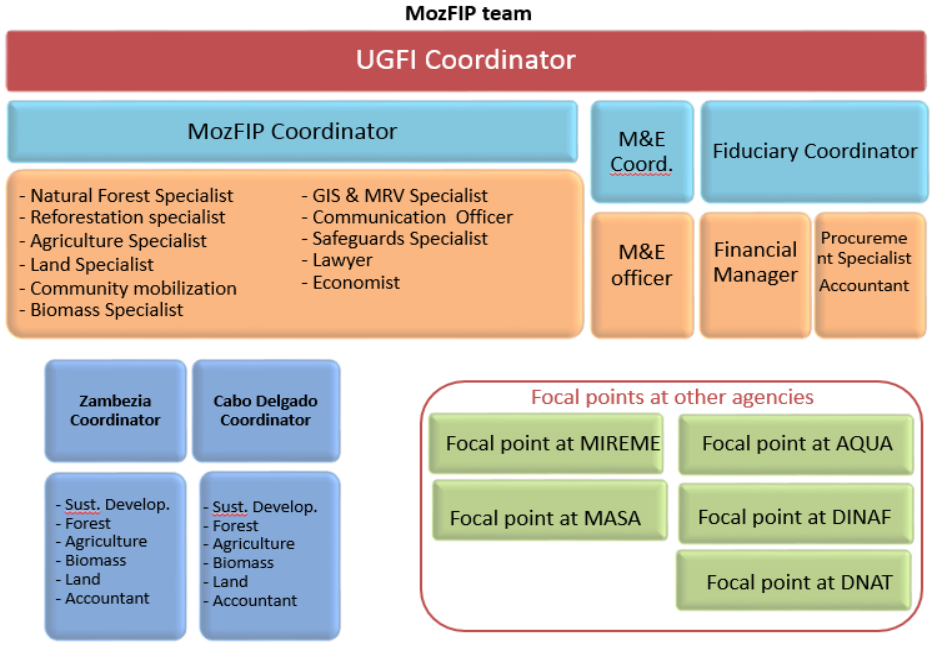


Figure 3: MozFIP team

4. **At the provincial level, the LCUs will coordinate project activities under the supervision of MITADER's Provincial Directorate (*Direcção Provincial de Terra, Ambiente e Desenvolvimento Rural*, DPTADER)**. The LCUs will coordinate and monitor project implementation progress at the provincial level and interface with the district authorities, the District Service of Economic Activity (*Serviço Distrital de Actividade Económima, SDAE*) and the District Service for Infrastructure and Planning (*Serviço Distrital de Planeamento e Infraestructura, SDPI*) in the targeted districts. The LCUs are presently fully staffed and composed of one provincial coordinator, and staffed with technical specialists (forest specialist, agriculture specialist, biomass energy specialist, land specialist, and a sustainable development specialist, who will be responsible for the safeguards activities), and administrative support (accountant). They report to the national UGFI coordinator and to the MITADER provincial directors, and have regular meetings with the provincial governors.

5. **The existing provincial MSLFs will play an important role in project coordination and promoting integrated landscape management.** They bring together stakeholders around relevant issues in the landscape, including land-use trade-offs, NRM, and agriculture management, and foster cooperation and coordination across actors. The LCUs serve as forum secretariats and assist their members in developing annual Strategic Action Plans to monitor activities and track performance against clear targets established in a participatory manner. MSLFs are also expected to promote better coordination of projects and other initiatives present in the landscape by facilitating the establishment of a common vision to manage the landscape and a space for knowledge exchange. MSLFs and their SAPs will thus foster project ownership and awareness of landscape stakeholders, orient strategic efforts, and create synergies within the project area.

6. **Service providers will primarily implement activities** under the supervision of the FNDS and the LCUs. They will be hired through a competitive process. The UGFI has already been working with some service providers on tasks similar to the ones requested in the MozFIP project, particularly with service providers working for the Agriculture and Natural Resources Landscape Management project, and hence have acquired relevant experience. The UGFI has an extensive roster of service providers (domestic and international) who could deliver on the tasks that MozFIP requires.

7. **A competitively hired service provider will implement the Planted Forests Grant Scheme**, and will be responsible for making the disbursements to the selected beneficiaries. Payments to beneficiaries will be made in regular installments against demonstrated results as assessed by the LCUs.

8. **A Project Implementation Manual (PIM) is under preparation and is a condition of effectiveness.** The PIM will cover general purpose PIM, project history, objectives and components, implementation timeline, institutional arrangements, landscape overview, beneficiaries and location, budget, accounting policies, accounting and financial reporting system, administrative procedures (operating, administrative and financial, procurement, M&E, management of fixed assets, safeguards procedures and tools). The grant scheme will produce a detailed operations manual that will be part of the PIM.

Financial Management

9. **A financial management assessment was conducted in accordance with the Financial Management Manual that the Financial Management Sector Board had issued in March 2010**.

Its objective was to determine whether the UGFI has acceptable and adequate financial management arrangements to ensure reliability of financial reporting; effectiveness and efficiency of operations; and compliance with legal covenants, laws, and guidelines.

10. **The conclusion of the review of the proposed financial management arrangements was that the overall financial management risk rating of the project is Moderate**, although the UGFI will need to write of a financial management procedures manual as part of the PIM and register the project in the government's budget, particularly for reporting on the use of the funds, because project funds will not be flowing through the government's single treasury account. The external audit will be the overall responsibility of the AT, which is constitutionally mandated to audit all government funds, although this audit may be subcontracted to a private sector audit firm. The proposed financial management arrangements, as summarized in Annex 3, meet the requirements for financial management under OP/BP 10.

11. **MITADER, through the UGFI, is the lead coordinating agency for the project, including on aspects related to financial management.** UGFI is already implementing several WB-financed projects and has sufficient competence to manage the complexity of MozFIP but may require an additional accounting assistant to work under the guidance of a financial manager. The project will use some of the government's PFM systems, including budgeting, accounting, internal controls, financial reporting, and auditing, as follows.

12. **Budgeting.** Although the funds will not flow through the government's single treasury account, budgeting, budgetary control, and budget revisions will follow national procedures requiring that the project budget be inserted as part of MITADER's budget and approved by parliament. In coordination with other project stakeholders such as DINAT, AQUA, ANAC, and DINAF from MITADER and other institutions from MASA and MIREME, annual work plans and budgets will be prepared following the budget preparation cycle of Mozambique. IDA will need to approve these annual work plans no later than November 30 each year. Therefore, the project will be on the government's budget system, but off the Single Treasury Account, requiring that UGFI report on its budget execution to the National Directorate of Public Accounting *(Direção Nacional de Contabilidade Pública)*. Budget monitoring will take place directly on an accounting system that UGFI will procure, particularly given that the financial administration system SISTAFE follows the government's economic classification and not necessarily the project component, subcomponent, or activity.

13. **Internal control and accounting procedures.** Internal controls and accounting will be based on national procedures. MITADER also has its own internal control oversight body in the *Inspecão Geral*, which is responsible for carrying out independent assurance activities about the ministry's operations. It is expected that project activities will be part of the audit plans of the inspections to ensure that they add value to the project operations. The Ministry of Economy and Finance also has its own *Inspeção Geral das Finanças*, which has overall responsibility for the internal controls and oversight of the *Orgãos de Contole Interno* of the government through their inspections, which take place at least yearly. Given that UGFI is currently handling several donor-funded operations, including those that the WB is financing, UGFI will hire an internal auditor who reports directly to FNDS (President of Administrative Council) to ensure independence and objectivity.

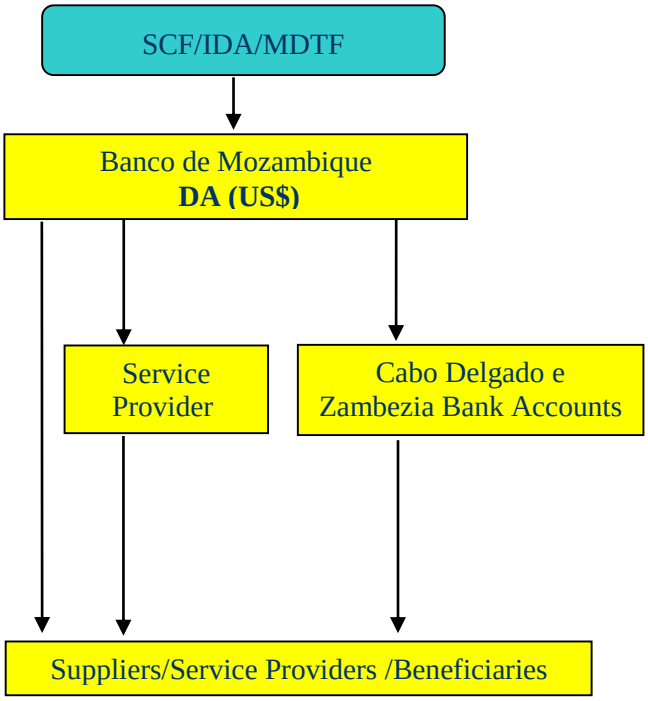
14. **UGFI already has a financial management procedures manual that the WB recently approved for other operations that are currently being implemented**; the manual already contains accounting procedures for approval of transactions, travel and per diem procedures, and supporting

documentation, which are normally raised in independent audits, but procedures relating specifically to MozFIP, including disbursements and reporting templates, will be captured in the financial management procedures manual as part of the PIM. In addition, given the project's different stakeholders, the manual will describe procedures and provide guidance on coordination between the implementing entities and the project coordinating team.

15. **Staffing.** UGFI already has financial managers for other WB-financed projects. Because MozFIP will bring additional workload, UGFI will recruit an additional accounting assistant to work under the guidance of one of the financial management managers. The financial managers will provide on-the-job training to the accounting assistant, who should also undergo hands-on training in financial management and disbursements for WB-financed operations training to be more conversant with the respective procedures. The recruited personnel will also be responsible for training and working with government counterparts to ensure sustainability through systematic training and involvement in the project financial management processes. This includes personnel who will be in Zambezia and Cabo Delgado provinces, which will require supervision from UGFI.

16. **Accounting system.** UGFI has recently moved to a building that does not belong to the government and therefore is not connected the government's integrated financial management information system. Therefore, the project will not use this system to capture and summarize its transactions. UGFI will use an off-the-shelf accounting software package customized to address the project needs. The system will be in place within three months of project effectiveness. This includes defining the activities in the annual work plan, categories of the different legal agreements, and the project's components/subcomponents for effective analysis of the project. Preparation of the accounting information will be on cash basis in accordance with the Mozambique government's requirements, which are in alignment with international public sector accounting standards.

17. **Funds Flow.** Although there are four sources of financing, there is no distinction as to which activities each finances; therefore, only one designated account will be opened at the *Banco de Moçambique*, through which all funds will flow to service providers and suppliers of goods. A provincial bank account will be opened in *meticals* in Zambezia and in Cabo Delgado to pay for the day-to-day activities of both LCUs. The funds will flow according to the chart below.



18. **Funds disbursement.** Funds will not flow through the government's Single Treasury Account until UGFI is connected to the government's integrated financial management information system. Upon submission of acceptable withdrawal applications, funds will be deposited in the designated account held in the *Banco de Moçambique*, based on the project's forecasts submitted along with the quarterly interim financial reports.

19. **Funds flow for the Planted Forest Grant Scheme.** Funds for the scheme involve transfer of funds to beneficiaries (small and medium landholders) in districts and locations that may not have adequate banking systems. Beneficiaries may also have difficulty obtaining appropriate identification for opening bank accounts. To ensure that farmers remain motivated, there is a need for the payment process to be swift and timely. The service provider hired to support the implementation of the whole scheme will manage the flow of funds for all cash transfers to beneficiaries. Thus, FNDS will transfer funds to the service provider directly, who will pay final beneficiaries upon completion of a verification protocol to be determined in the respective PIM. The PIM will detail payment and reporting procedures. Early experience in using payment agents will be closely monitored so that lessons learned can inform the expansion of the program to other districts under the project.

20. **Reporting.** Quarterly reports (using the Interim Financial Report forms) will be prepared and submitted to the WB within 45 days of the end of each calendar quarter reported on. In addition, given that the funds will not be flowing through the government's single treasury account, UGFI will be responsible for submitting quarterly reports to the National Directorate of Public Accounting for posting of updates of its budget execution, given that the project will be on the government's budget system, but off the Single Treasury Account. These quarterly reports will include sources and uses of funds; detailed use of funds schedule according to project component and disbursement categories,

comparison with budgets, and short-term forecasts of expenditure; summary statements of designated account expenditures subject to prior review; a narrative description of implementation highlights and challenges for the quarter that will help readers understand the financial statements.

21. **The UGFI will submit the audited annual financial statements together with the management letter to the WB within six months after the end of the fiscal year**. The AT will conduct these audits in accordance with international standards on auditing. The annual financial statements for the project will incorporate all activities, be prepared in accordance with international public sector accounting standards for cash basis, and include, among other things:

    - A statement of sources and uses of funds according to expenditure category, showing funds from IDA and how they were applied;
    - The supporting notes with regard to significant accounting policies and accounting standards that management has adopted;
    - Designated account activity for the year showing deposits and replenishments received, payments substantiated by withdrawal applications, interest earned, and the balance at the end of the fiscal year.

22. **External Auditing.** The audit terms of reference have been agreed on with the Supreme Audit Institution and the AT, which is constitutionally mandated to audit all government funds, including projects financed using external sources. Therefore, the AT will have overall responsibility for audits of the project. The audits may be subcontracted to a firm of private auditors with or without participation of AT staff. Any firm of auditors that the AT subcontracts to perform the audit will have to meet IDA's requirements in terms of independence, qualifications, and experience, which are designed to ensure that the annual financial statements fairly present the financial transactions and balances associated with the project. The project will need to set aside some funds to cover the AT's reasonable incremental costs (travel, per diem, accommodation) to cover the audit, which will be transferred to the AT once a year.

23. **The audited financial statements, the auditor's report, and the management letter (incorporating management's comments) covering identified internal control and accounting system weaknesses, will be submitted to IDA within six months of the end of each fiscal year.** A single audit opinion will be issued and will cover all project receipts and payments and designated accounts and the audit report (without the Management Letter) will be published on the WB's external website, in accordance with the WB's Access to Information Policy.

24. **In addition to the above arrangements, UGFI must ensure that the PIM (which will include financial management procedures) is adopted by project effectiveness.** All procedures to be followed regarding financial management will be documented in the PIM to ensure consistency of procedures, and the finance manager will be responsible for ensuring that the project's financial management arrangements are adequate and satisfactory throughout the life of the project.

Table of audit compliance requirements

Action	Submission Date	By whom
Submit annual audited financial statements with management letter	Annually by June 30	UGFI

Financial Management Action Plan

Action	Indicative Date	By whom
Complete Financial Management Manual (PIM)	Condition of effectiveness	UGFI
Acquire accounting software and customize it to project needs	3 months after effectiveness	UGFI
Recruit accounting assistant and internal auditor	3 months after effectiveness	UGFI

Disbursements

25. **Disbursement Phasing.** Since all project activities are eligible for financing by all four sources of funds, disbursements from the financing sources will be made in the following order: 1. Integrated Landscape and Forests Management MDTF; 2. Strategic Climate Fund Grant; 3. IDA Credit; 4. Strategic Climate Fund Loan. When the expected additional US$7 million from the MDTF is made available to the client, the use of these funds should be prioritized, given the closing date of the MDTF (December 2021).

26. **The project will disburse using the advance disbursement method, with an interim financial management report with a forecast for the upcoming six months**. The project may also use other disbursement methods, such as reimbursement, by which the WB reimburses the government for payment of any eligible expenditure paid from its own resources; direct payment method, whereby the government requests the WB to make a payment directly to a third party on its behalf; and special commitment, whereby the WB serves as a guarantor; it is not expected that this third method will be used.

27. The project will open one designated account, at the *Banco de Moçambique*, from which all payments for goods and services will be paid. In addition, to protect against currency devaluation, all payments will be made directly from the US$-denominated account, without the need for a local currency account.

Procurement

28. **Procurement activities for the proposed project will be performed in accordance with the WB's** "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers," dated January 2011, revised July 2014, and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and

Grants by World Bank Borrowers," dated January 2011, revised July 2014, and the provisions stipulated in the financing agreement for the project. The "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants," dated October 15, 2006, and revised in January 2011, will also apply.

29. **The following activities form part of the project and are subject to WB procurement procedures.** *Goods*: information technology equipment, technological field equipment, camping equipment, vehicles, motorcycles, office supplies, uniforms. *Consultancies:* periodic evaluation of forestry governance and concessionaire, validation of the national certification system, preparation of the national spatial planning plan, systematic community land delimitation, design and implementation of project management system, emission reduction programs and design of the emissions reduction registration system, forest inspection strategy, sustainable commercial plantations, implementation of agroforestry systems, forest industry technology center, training biomass producers, environment and social management and project staff.

30. **Procurement of Goods, Works, and Nonconsulting Services: International Competitive Bidding**. Except as otherwise provided below, goods, works, and nonconsulting services shall be procured under contracts awarded on the basis of international competitive bidding.

31. **Other Methods of Procurement of Goods, Works, and Nonconsulting Services**. National competitive bidding, shopping, direct contracting, and community participation procedures acceptable to the Asssociation may be used for procurement of goods, works, and nonconsulting services for contracts specified in the procurement plan.

32. **All bidding documents to be used for national competitive bidding must be deemed satisfactory to the WB,** based on the national bidding documents and which take into account the following Additional procedures and exceptions:

33. **Additional Procedures for National Competitive Bidding**

(a) General**.** The procedures to be followed for national competitive bidding shall be those set forth in the *Regulamento de Contratação de Empreitada de Obras Públicas, Fornecimento de Bens e Prestação de Serviços ao Estado* of the Republic of Mozambique of March 8, 2016 (the Regulation), according to Decree No. 5/2016, with the modifications described in the following paragraphs.

(b) Eligibility**.** No restriction based on nationality of bidders or origin of goods shall apply. Foreign bidders shall be allowed to participate in national competitive bidding without restriction and shall not be subject to any unjustified requirement that will affect their ability to participate in the bidding process, such as, but not limited to, the proof that they are not under bankruptcy proceedings in the Recipient's territory; have a local representative; have an attorney resident and domiciled in the Recipient's territory; or form a joint venture with a local firm. In cases of joint ventures, they shall confirm joint and several liability. Prior registration or obtaining a license or agreement shall not be a requirement for any bidder to participate in the bidding process. The Recipient's government-owned enterprises or institutions shall be eligible to participate in the bidding process only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not dependent agencies of the Recipient.

(c) Bidding Documents. Standard bidding documents acceptable to the association shall be used for any procurement process under national competitive bidding.

(d) Preferences. No domestic preference shall be given for domestic bidders or for domestically manufactured goods.
(e) Applicable Procurement Method under the Regulation. Subject to these national competitive bidding exceptions, procurement under national competitive bidding shall be conducted in accordance with the regulation's public competition (Concurso Público) method.
(f) Bid Preparation Time. Bidders shall be given at least 28 days from the date of the invitation to bid or the date of availability of bidding documents, whichever is later, to prepare and submit bids.
(g) Bid Opening. Bids shall be opened in public, immediately after the deadline for their submission, in accordance with the procedures stated in the bidding documents.
(h) Bid Evaluation. Qualification criteria shall be clearly specified in the bidding documents, and all criteria so specified and only such criteria so specified shall be used to determine whether a bidder is qualified; the evaluation of the bidder's qualifications should be conducted separately from the technical and commercial evaluation of the bid. Qualification criteria shall be applied on a pass or fail basis. Bids shall be evaluated in strict adherence to the criteria declared in the bidding documents; criteria other than price shall be quantified in monetary terms. A contract shall be awarded to the qualified bidder offering the lowest-evaluated and substantially responsive bid. Bidders shall not be eliminated on the basis of minor, nonsubstantial deviations
(i) Rejection of All Bids and Rebidding. All bids shall not be rejected and new bids solicited without the Association's prior concurrence.
(j) Complaints by Bidders and Handling of Complaints. The Recipient shall establish an effective, independent complaint mechanism allowing bidders to complain and to have their complaint handled in a timely manner.
(k) Right to Inspect and Audit. In accordance with paragraph 1.16(e) of the Procurement Guidelines, each bidding document and contract financed from the proceeds of the financing shall provide that the bidders, suppliers, and contractors and their subcontractors, agents, personnel, consultants, service providers, or suppliers shall permit the association, at its request, to inspect their accounts, records, and other documents relating to the submission of bids and contract performance and to have auditors that the Association appoints audit them, and the deliberate and material violation by the bidder, supplier, contractor, or subcontractor of such provision may amount to obstructive practice as defined in paragraph 1.16(a)(v) of the Procurement Guidelines.
(l) Fraud and Corruption. Each bidding document and contract financed from the proceeds of the financing shall include provisions on matters pertaining to fraud and corruption as defined in paragraph 1.16(a) of the Procurement Guidelines. The Association may sanction a firm or individual, at any time, in accordance with prevailing Association sanctions procedures, including by publicly declaring such firm or individual ineligible, indefinitely or for a stated period of time, to be awarded an Association-financed contract and to be a nominated subcontractor, consultant, supplier, or service provider of an otherwise eligible firm being awarded an Association-financed contract.
(m) **Debarment under National System.** The Association may recognize, if the Recipient requests, exclusion from participation as a result of debarment under the national system, provided that the debarment is for offenses involving fraud, corruption, or similar misconduct and further provided that the association confirms that the particular debarment procedure is afforded due process and the debarment decision is final.

34. **Particular Methods of Procurement of Consultants' Services. Quality- and Cost-based Selection.** Except as otherwise provided in (b), consultants' services shall be procured under contracts awarded on the basis of quality- and cost-based selection. (b) **Other Methods of**

Procurement of Consultants' Services: selection under a fixed budget, selection based on consultants' qualifications, single-source selection of consulting firms, selection of individual consultants, single-source procedures for the selection of individual consultants, and selection of UN agencies may be used for procurement of consultants' services for contracts specified in the procurement plan.

35. **Review by the WB of procurement decisions.** The procurement plan shall set forth contracts that shall be subject to the prior review by the WB. All other contracts shall be subject to post review by the WB. The WB may, at its own discretion, require that a sample of contracts below the threshold be subject to prior review at any time or when the procurement plan is updated.

36. **Procurement plan.** The Recipient prepared a procurement plan for the first 18 months of project implementation that the recipient and the WB agreed to during negotiations. The plan has been made available in the project's database. The procurement plan will be updated annually or as required to reflect project implementation needs and improvements in institutional capacity. Procurement supervision missions will be held once every six months. Special procurement supervision for post-procurement reviews will be conducted at least once every 12 months. The procurement plan for the first 18 months is:
    - Works procurement packages with methods and time schedule
    - Goods procurement packages with methods and time schedule
    - Consultancy assignments with selection methods and time schedule

Environmental and Social (including safeguards)

37. **The proposed project is rated as Category B, since potential environmental and social effects are limited and easily manageable**. MozFIP triggers the social safeguard OP/BP 4.12 (Involuntary Resettlement) because the activities that the project finances may prevent communities from accessing land and natural resources. No activities leading to physical resettlement are foreseen in the project. Residual risks exist, ranging from restriction of access to legally designated protected areas, such as in the Quirimbas National Park and Gilé National Reserve Parks, to non-inclusive investment practices which could lead to the deterioration of rural livelihoods. An ESMF was prepared to provide guidance and propose actions to mitigate the broader negative effects of the project. The Process Framework will specifically address communities within the protected areas. Instead of preparing a stand-alone Process Framework, the project will use the Process Framework that was approved and disclosed in July 2014 and is currently implemented under MozBio. This instrument is adequate because MozBio already supports the two protected areas in MozFIP, so guidance provided in the Process Framework will be similarly applicable.

38. **A Grievance Redress Mechanism is under preparation and will be implemented to allow project-affected people to settle any likely grievance that could hinder project implementation and outcomes peacefully.** The government will implement this mechanism through the UGFI and LCUs (at national and provincial levels), and service providers. It builds on an upgrade of existing local mechanisms for settling any conflict,[39] with the use of legal services as the last resort.

[39] For example, use of traditional and cultural streams, recourse onto local leaders and religious healers, social structures considerate of youth and gender dimensions.

39. **The promotion of community land delimitation is a strategic approach to mitigate the risks to community land rights and livelihoods where the value of natural resources is likely to attract private sector investments**. The capacity of communities is increased to allow them to negotiate resource access with the private sector to the mutual benefit of all members of the local communities that use the resources and not just those who are grouped together (e.g., in an association). While Mozambique has consistently increased the number of delimited communities, results have not always been positive. Poorly conducted community land delimitation can enhance exclusionary processes, especially towards women and other vulnerable groups. By the same token, well-conducted community land delimitation may bring latent conflict over land-related resources into light by making boundaries visible, creating short-term challenges. These and other risks will be adequately considered during implementation. Together with community land delimitation, individual titling (issuance of DUAT) will be promoted to strengthen community land security and that of small and medium landholders and consequently generate new opportunities by linking the community to markets for agriculture and forest products.

40. **The promotion of planted forest could increase expectations from surrounding communities about employment and new market opportunities, and increase land speculation**. This could frustrate those not directly engaged or perceiving direct benefits, and restrict land access. The project will deploy a robust communication strategy to deal with this risk, and beneficiaries of the planted forests grants will be required (and monitored) to provide proof of acceptance to the plantations by the surrounding neighbors, and/or to enter benefit sharing agreements with those people that have a right to the land to be reforested. As to economic compensation for forest plantation activities, there will be no compensations as participation in these activities is voluntary and based on voluntary agreements between parts.

41. **The active engagement of women, youth, and vulnerable groups around natural resource management is a challenge**. This is especially true for rural women, who must ensure the sustainability of their households, but restrictions on participation in public consultations and decision-making spaces, customary laws, and lack of literacy limit the empowerment of women. As such, MozFIP envisages the promotion of land co-titling, whereby the wives and husbands have the same rights to their property. In addition, service providers will encourage inclusive practices at all levels. The Local Community Land Use Plan is a valuable tool that facilitates inclusiveness and will be promoted in support of land delimitation. The Process Framework makes provisions to ensure that vulnerable groups are not worse off and that alternative sources of livelihood and income-generating activities are suggested to accompany shifts in the living conditions of communities participating in the project.

F. Environment (including Safeguards)

42. **MozFIP is expected to have largely positive environmental impacts**. Nonetheless, adverse environmental effects may occur, namely soil erosion, soil disturbance, vegetation clearance, and degradation of water quality and quantity. For this reason, OP/BP 4.01 Environment Assessment was triggered, and will be dealt with an ESMF**,** which details procedures and appropriate institutional arrangements for preparing, screening, reviewing, implementing, and monitoring specific ESMPs to prevent adverse impacts, including cumulative impacts.

43. **MozFIP activities are expected to have significant positive impacts on natural habitats,** because the project will support institutional reform to address unsustainability in the forest sector and trigger

a long-term shift in the focus of the sector from resource exploitation toward sustainable management and adding value to the domestic timber sector. Policy reforms and improved practices should also have a positive and sustainable effect on people's lives, land uses, and economic opportunities. The project will contribute to improving land productivity, which may on the other hand lead to adverse environmental impacts, such as some land clearance, soil erosion, and biodiversity loss. For the promotion of forest plantations and agroforestry, degraded areas will be prioritized using geospatial tools and participatory land-use approaches. Therefore, adverse effects are expected to be of small magnitude. Restoration of areas within planted forests areas will be encouraged and incentivized, contributing to overall ecosystem services.

44. **Conversion of critical natural habitats will not be financed. The Project has prepared suitability maps with "go" and "no-go" areas.** The "no-go" areas include critical natural habitats. The "go" areas were identified using satellite images and prioritize degraded areas. In addition, on-the-ground assessments will be conducted by the service provider and the FNDS / UGFI to further identify any fragment of non-critical natural habitat to be potentially converted. Eventual conversion of non-critical natural habitat will be coupled with mitigation and compensation measures such as restoration of degraded areas. Any non-critical habitat conversion must aim to enhance sustainable development of the area/community, improve landscape and land use sustainable management, hence enhancing ecosystem services.

45. **The landscapes in the project include protected areas: the Gilé National Reserve and Quirimbas National Park. OP/BP 4.04 Natural Habitats is triggered, as** agroforestry activities may be promoted within the Quirimbas National Park – but only in areas zoned as community development areas, in accordance to the approved management plan of the conservation areas.

46. **OP/BP 4.36 on Forests was triggered because some of the proposed activities will involve forest management and forest restoration,** but overall, MozFIP activities are expected to have significant positive impacts on forests in the targeted areas. Potential adverse impacts of MozFIP interventions on natural forests will be identified, assessed and managed under the ESMF. The project will provide technical assistance to different actors (including community members and private sector firms) on sustainable natural forest management, including TA for them to obtain forest certification.

47. **The project also triggers OP/BP 4.37 Safety of Dams because of potential investments in the rehabilitation of irrigation systems, small water storage, and water canals**. Nonetheless, it is not expected that the project will be involved in any new investments in large dams, such as those within the triggering definition of OP/BP 4.37 (15 m or higher and water storage infrastructure of 3 million m^3 reservoir capacity). Site-specific Environmental and Social Management Plans (ESMPs) will be prepared for any new infrastructure. The ESMPs will be binding to the contractor's contract and ensure that safeguards recommendations are complied with during project implementation. Moreover, any dam-related activity will be undertaken following the guidelines of the FAO's Manual on Small Earth Dams: A Guide to Siting, Design, and Construction (2010).

48. **MozFIP will also preemptively trigger OP/BP 4.11 Physical Cultural Resources** because some investments may affect these types of resources (e.g., graveyards, sacred trees), therefore "Chance Find" activities must be requested at ESMF and ESMP level, when appropriate, and more-specific management measures will be undertaken where adverse direct impacts are foreseen.

49. **To ensure compliance with the safeguard policies, the borrower has disclosed the ESMF in-country and in InfoShop on January 18, 2017.** The ESMF provides essential guidance for the borrower to follow before and during project implementation to ensure adequate monitoring and reporting of safeguards requirements. The ESMF also includes an environmental and social screening form and a set of environmental and social clauses for project implementers. MITADER has acquired considerable experience in implementing and addressing safeguards needs in projects, and dedicated environmental and social safeguards specialists at the central level are operational, and specialists with safeguards knowledge will be hired at the provincial level. During implementation of this operation, technical assistance and training will strengthen the government's (and their service providers') overall technical capacity on safeguards, particularly through. The PIM will duly consider safeguards requirements.

Monitoring and Evaluation

50. **The project's M&E system will generate timely information and analytical evidence required for assessing and managing the project's implementation performance and ensuring progress toward meeting the PDO and results at three levels**: effect, outcome, and output.

51. **This results framework defines the performance indicators (at the outcome level) for each component**. Each component and subcomponent activity comprises a corresponding outcome and output indicator and target. These output indictors and targets provide the basis for monitoring priority activities for the project to finance systematically.

52. **The project's M&E reports will include**:
    - Quarterly Progress Reports: These reports will monitor and consolidate progress on key activities and outputs and will be produced on a quarterly basis. These progress reports will provide useful inputs to support the six-month joint implementation support reviews that MITADER and the WB will conduct.
    - Yearly Progress Reports: These reports will track and consolidate progress on key activities, outputs, and outcomes and will be provided annually to key stakeholder participants.
    - Mid-term review: By the end of year 2, an independent party, along with the WB and MITADER and other implementing entities, will undertake a comprehensive mid-term review of the project that will focus on assessing progress toward the impact and outcome targets and corresponding indicators (with special attention paid to assessing the key indicators outlined in the Results Framework. Selected thematic in-depth assessments will be identified (in year 2) and performed as evidenced-based inputs for the mid-term review (e.g., assessing the emerging viability of the business plans that the project supports);
    - Final Evaluation: Six months before project completion, an independent evaluation will be conducted with special focus on identifying key operational lessons that can be used for designing the next project.

53. **The project is establishing a Management Information System (MIS) that will comprise and manage the above activities**. Overall responsibility for the project's MIS and M&E will be the responsibility of an experienced M&E specialist, who will be a core member of the UGFI project coordination team. The M&E Specialist will work and coordinate closely with the relevant M&E specialists from the various departments and Directorates at the provincial and district levels. The MIS and M&E systems specialists will be strengthened through strategic capacity-building activities

under the project. The key outputs of the M&E activities will be submitted to the members of the FIP Steering Committee (at the national level), the provincial MSLFs, and the district-level forums as key inputs for obtaining strategic guidance during their periodic meetings. There are state and nonstate members at each of these forums, and therefore, the project will promote a participatory approach to its MIS.

54. **To facilitate the MIS and M&E system, the M&E specialist will prepare a project-level M&E manual as part of the PIM.** The M&E manual will provide details on the definition of the results framework; methodology and instruments to be used for data collection; institutional arrangements and responsibilities for M&E functions, including at provincial and district levels; the Grievance Redress Mechanism; and mechanisms and arrangements for disseminating information. The system will also inform a communications strategy that UGFI will develop and implement.

Role of Partners (if applicable)

55. **The project preparation team has engaged in stakeholder consultations and dialogue to communicate project objectives and approach to ensure that all stakeholders can provide inputs that can lead to improved implementation performance**. Consultations will continue during project implementation at the national, provincial, district, and local levels across the country. Consultations have covered three provinces evenly distributed across the three main regions of Mozambique: Gaza in the south, Zambezia in the central zone, and Cabo Delgado in the north. Nine communities were consulted in six districts, and 1,904 community members were consulted as part of the SESA preparation, of whom 1,240 were male and 664 were female. In terms of demographic groups, 175 young people, 409 adults, and 136 elderly people were consulted. A focus group discussion guide was developed and applied based on best practices and used to explore concerns about the drivers of deforestation and forest degradation, land use and land tenure, social and environmental protection, and sustainable forest management.

56. **Such consultations will continue during project implementation and will aim at maintaining dialogue and information sharing about project intervention**. Stakeholders to be consulted will include civil society groups; provincial- and district-level associations; local and international NGOs; private sector operators; development partners; and national-, provincial-, and district-level governments directly concerned with the project. The project will promote a national forest forum to allow for continued multi-stakeholder consultations at the national level while the MSLFs allow that at the provincial level.

57. **The government has actively engaged with a variety of ministries and sector agencies in the project preparation process**, including the Ministry of Agriculture and Food Security (DNEA, DNAS), AQUA, FUNAE, and ANAC. This coordination and engagement will continue throughout the implementation of the project. At the landscape level, the government has also made considerable progress in developing channels of cross-sectoral communication, such as through the provincial multi-stakeholder forums.

58. **The private sector was closely engaged during project preparation, given the emphasis of the project on support to SMEs in the natural and planted forests sectors.** The government organized several consultations with forest operator associations, including the Mozambique Timber Operators Association (*Associação Moçambicana de Operadores Madereiros*) and the Zambezia Timber Operators Association (*Associação Madeireiros da Zambezia*), and planted forest companies, and communicates frequently with IFC, which is working closely with Portucel. Dialogue with this stakeholder group has been critical in informing project design and has been conducted through interviews, workshops, and

forums. Communication and consultations will continue extensively during project implementation to ensure that their inputs are received, to allow for improved implementation.

59. **During the project preparation process, the government convened development partners, who attended all national consultations related to the development of the Forest Investment Plan and participated in joint missions to the Zambezia and Cabo Delgado program areas.** During a joint visit to Zambézia in February 2016, for instance, the government, the WB, and the Embassy of Sweden visited initiatives that seek to address deforestation, including cashew and other fruit tree nurseries. They also participated in the Zambézia REDD+ Forum, a multi-stakeholder platform geared toward sustainable NRM and rural development. This and other opportunities have enabled advancing mutual understanding among development partners of the project and its links to the vision, mandate, and mission of MITADER and its programs.

60. **To increase the visibility of the project and to engage a wider group of partners and stakeholders throughout project implementation, the project has prepared a communications strategy**. Outreach will highlight the importance and benefits of reducing deforestation and strengthening forest governance, land planning and delimitation, sustainable forest and land management, and links to improving livelihoods and economic opportunities. The strategy has adopted communication and training tools that are carefully tailored and targeted to the various stakeholders, such as consultations, surveys, and studies, to obtain feedback from target groups on their understanding of project activities and to adapt the technical material as needed. MozDGM will also support this.

ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY : Mozambique
Mozambique Forest Investment Project

Strategy and Approach for Implementation Support

1. The strategy for implementation support will include formal supervision visits, including field visits to the targeted provinces, districts, and landscapes and providing support to the implementing agency, MITADER, UGFI, and the LCUs.

2. **Implementation Support Plan.** Special focus will be placed on supporting the strengthening of UGFI and LCUs and monitoring their performance; reviewing progress of key policy and institutional reforms that the project supports, as well as their impacts on forest inspection and control and native and planted forest management, smallholder agriculture, and land tenure regularization activities; ensuring that service providers effectively deliver the content of technical assistance to beneficiaries of biomass energy production, agroforestry, and the planted forests grant scheme support; monitoring the development and performance of biomass energy, agroforestry, and planted forests grant scheme beneficiaries that the project supports, including implementation of their business plans; reviewing the process and results of land tenure regularization activities, including the effectiveness of service providers; monitoring the process and content of technical assistance that service providers provide and deliver to community-based organizations; monitoring the performance of the Zambezia and Cabo Delgado multi-stakeholder landscape platforms; monitoring the supervision of restoration and natural resources protection, particularly the survival rate of reforested areas; implementing a proactive communication and consultation strategy that requires stakeholder engagement; and monitoring overall project implementation and performance, including its results indicators.

3. **Fiduciary requirements and inputs.** The financial management implementation support plan will be risk based, and will include review of the project's financial management system, including but not limited to accounting, reporting, and internal controls; beneficiary institutions; quarterly statements of expenditures; and annual audited financial statements, as well as timely follow-up of concerns arising from the audit. The WB financial management team will participate in project implementation support missions as appropriate. Review and monitoring of procurement activities, as guided by the procurement plan, will be undertaken to ensure compliance with WB procurement policies and procedures. The WB's procurement team will also participate in implementation support missions.

4. **Environmental and Social Safeguards.** Implementation support will include supervision of social and environmental safeguards management at the central and provincial levels, including implementation of the ESMF, Process Framework, ESMP, and IPMP and provision of training and guidance to UGFI, service providers, and project beneficiaries. As part of regular implementation support missions, audits and reviews will be undertaken to assess how the project manages social and environmental concerns, including through adequate staffing and monitoring. UGFI has prepared a communication and public consultation action plan will support the development of an adjusted GRM. This will also involve engagement with stakeholders, including SMEs, farmer-based organizations, and local communities. The PIM will detail procedures, management plans, and checklists to further support environmental and social safeguard implementation requirements.

Implementation Support Plan and Resource Requirements

Time	Focus	Skills Needed	Resource Estimate
First 12 months	Project start-up, procurement of key service providers required for activities launched in year 1, identification of any problems early in the life of the project	Forestry, natural resources management, community development, safeguards, financial and procurement expertise	150,000
12-60 months	Continued technical assistance to the UGFI and provincial units, review of continued adequacy of financial, procurement, safeguards arrangements, other implementation requirements	Forestry, natural resources management, community development, safeguards, financial and procurement expertise	800,000

Staff skills mix required:

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
NRM Specialist	36	5	Based in Maputo
Forestry Specialist	24	3	Based in Maputo
Agriculture Specialist	12	2	Based in Maputo
Environmental Safeguards Specialist	12	5	Based in Maputo
Social Safeguards Specialist	12	5	Based in Maputo
Procurement Specialist	10	Field trips as required	Based in Maputo
Financial Management Specialist	10	Field trips as required	Based in Maputo
Monitoring & Evaluation Specialist	10	5	
Communications Specialist	10	3	

Financial Management Implementation Support Plan

5. The financial management implementation support plan will be risk based and will include review of the project's financial management system, including but not limited to accounting, reporting, and internal controls. It will also include review of beneficiary institutions, including provincial delegations. Other

activities include review of quarterly reports; review of annual audited financial statements and management letter and timely follow-up of issues arising; and participation in project supervision missions as appropriate.

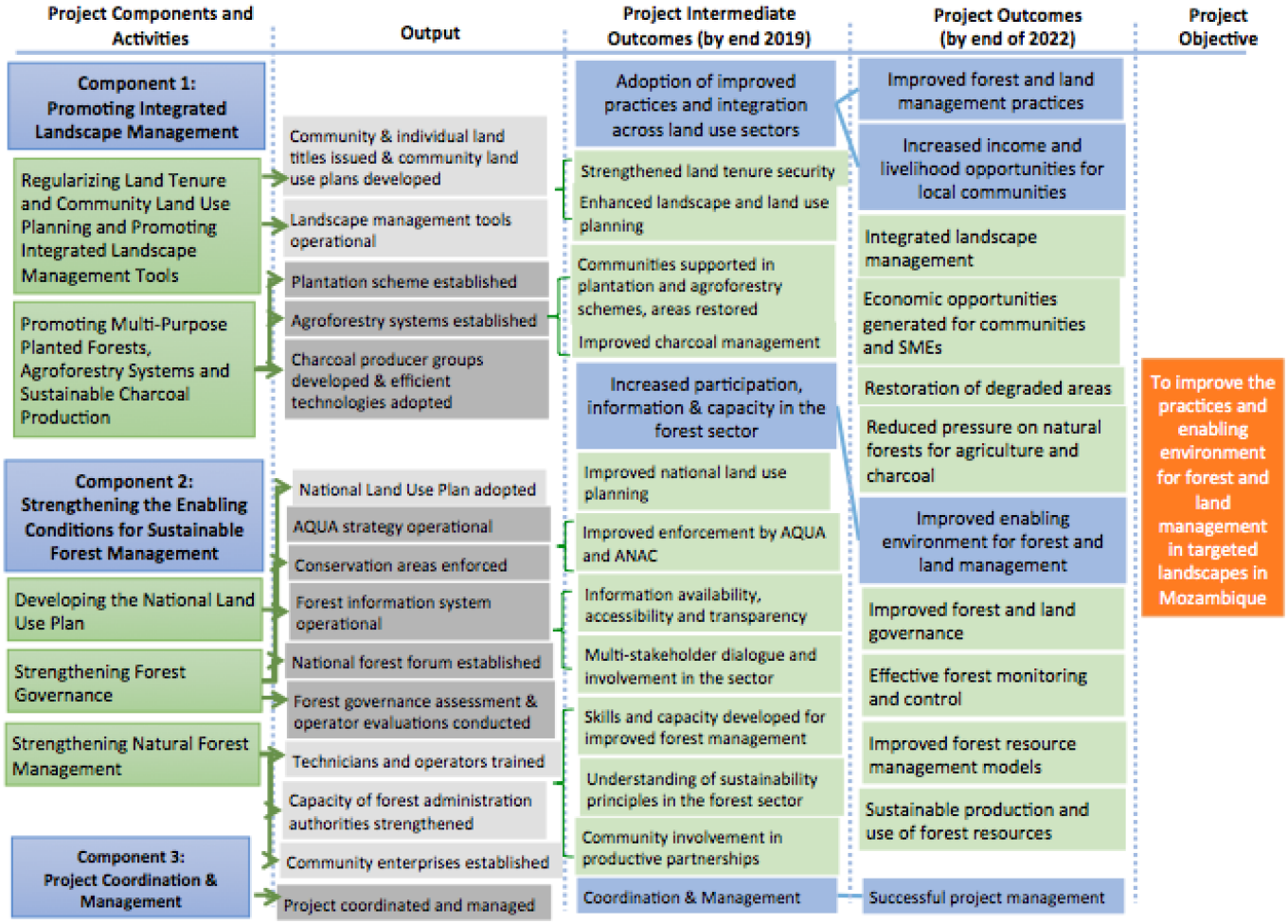
Time	Focus	Skills Needed	Resource Estimate	Partner Role
First 12 months	Verify whether the risk-mitigating measures that project effectiveness has implemented are still functioning as intended. Identify any potential problems early in the life of the project	Financial management	2 weeks	NA
12-60 months	Review continuing adequacy of financial management arrangements	Financial management	8 weeks	NA

ANNEX 4: PROJECT RESULTS CHAIN AND INDICATORS DESCRIPTION

COUNTRY : Mozambique

Mozambique Forest Investment Project

Overall Mozambique Forest Investment Project (MozFIP) - Results Chain



Project indicators, their definition and significance

Indicator	Definition / description	Significance (link to PDO and outcomes)
PDO indicator 1: Land area where sustainable land management practices were adopted as a result of the project (number of hectares)	This indicator measures the land area that as a result of the WB project incorporated and/or improved sustainable landscape management practices. Areas that come under sustainable landscape management practices are defined as: 1) Planted forest areas under the Planted Forest Grant Scheme. These areas comply with a Forest Management Plan, which is a criterion for eligibility for the scheme. It requires that management of the areas meets a set of sustainability criteria as defined in the PIM, and includes areas for restoration; 2) Areas where agroforestry systems are established; 3) Forests areas under a management plan for charcoal production; 4) Conservation areas that come under improved management, as measured by the Management Effectiveness Tracking Tool. The targets will include the terrestrial strict protected areas of the Quirimbas National Park (400,000 hectares) and the area of the Gile National Reserve (450,000 hectares). Area brought under improved management is accounted for when their METT score moves up by one level. The levels are: Level 1: 0-35%; Level 2 - 36% and 45%; Level 3 - 46% and 55%; Level 4- 56% and 65%; Level 5 - 66% and 75%; Level 6 - > 76% of total possible score. The methodology is a rapid assessment based on a scorecard questionnaire. 5) Forest concessions areas that come under national forest certification.	This indicator measures spatial achievement of the project development objective in the landscapes, that is, the improvement of forest and land management practices. It also reflects several project outcomes, namely the restoration of degraded areas, reduced pressure on natural forests for agriculture and charcoal, improved forest resource management, sustainable production and use of forest resources, and effective forest monitoring and control, including of conservation areas. Conservation areas are supported by the project through financing to law enforcement, promotion of community development around the conservation area, and improved forest governance which should reduce the pressures on the conservation area from outside its boundaries.
PDO indicator 2: Land users adopting sustainable land management practices as a result of the project (number) (of which female)	This indicator measures the number of people who have adopted sustainable land management practices because of the project, disaggregated by gender. Users adopting sustainable land management practices include: 1) Planted forest landholders under the Planted Forest Grants Scheme who comply with their Forest Management Plans; 2) Agroforestry system adopters; 3) Charcoal producers; and 4) Forest concession holders whose concessions come under national forest certification.	This indicator measures the extent to which the project has been successful in changing the behaviors and practices of people in the project area and enhancing the sustainability of their land use practices. The significance of this indicator to the project development objective as well as project outcomes are the same as those above.
PDO indicator 3: Average score in targeted landscapes from forest governance assessment (number)	This indicator measures the strength of forest governance as perceived by forest stakeholders in the project area. It is an aggregate of various issues that contribute to forest governance. These issues and their relevant indicators are in Annex 4. The assessment is adapted from the *FAO and PROFOR Framework for Assessing and Monitoring Forest Governance*. The scores will be derived from assessments conducted in Zambezia and	This indicator yields information about how well the project has achieved its objective to improve the enabling environment for forest management, and its project outcomes of improved forest and land governance, increased participation, information, capacity and transparency, effective forest monitoring and control and

	Cabo Delgado.	sustainable production and use of forest resources. It captures the perception of the stakeholders of progress on these issues at the national and sub-national levels.
PDO indicator 4: Share of target beneficiaries satisfied with information about and their participation in forest and land-use decisions that affect them (Percentage) (of which female)	This indicator measures the perception of project beneficiaries of the extent to which they are able to engage and participate in forest and land-use decisions, whether through specific project interventions or as a result of the expansion of such opportunities generally in the project landscapes.	This indicator monitors an important element of improved overall governance, and an intermediate outcome that could lead to improved forest and land management practices. Access to information and a voice to participate in decisions over natural resources can empower stakeholders and bring long-term benefits for resource management.
IR indicator 5. National Land Use Plan submitted for Government's adoption	This indicator measures the development and submission of the National Land Use Plan to the relevant government authorities. Milestones: Y1 – None; Y2 – Baseline data collected; Y3 – Draft NLUP consulted upon; Y4 – Final NLUP prepared; Y5 – Final NLUP submitted for approval by the government	This indicator measures the progress of the development of the National Land Use Plan. Proper land use planning leads to the outcomes of improved land governance, where land use decisions are based on information and a consultative process on land use priorities.
IR indicator 6. National forest information system operational	This indicator measures the development and operationalization of a national forest information system. Operational is defined by the following goals: Y1- Data collected; Y3- System designed and established; Y5- System accessible to relevant stakeholders and public	This indicator depicts if the project has reached its intended outcomes of improved information availability, accessibility and transparency, which is indicative of an improved enabling environment for forest and land management, improved forest and land governance, and allows for effective forest monitoring and control.
IR indicator 7. Forest concessions inspected annually	This indicator measures the effectiveness of forest institutions, and an aspect of legality, through the verification of compliance with management plans.	This indicator measures if the project has improved the capacity of forest administration and forest law enforcement authorities, contributed to effective forest monitoring and control and produced improved forest resource management models.
IR indicator 8. Forest operators in targeted landscapes with scoring of at least 80 in government's assessment of forest concession holders (percentage), disaggregated by Province	This indicator measures the performance of forest operators against criteria of legal and basic sustainability requirements. The criteria were defined by a multi-stakeholder group and cover some of the following: compliance with fiscal obligations, social security, having an approved management plan, qualified rangers, concession contract, availability of statistical information, inspection of industrial plans, technical capacity, delimitation of area and harvesting blocks, and reforestation.	This indicator measures to what extent the project has achieved the intended outcomes of improving forest management practices. It measures how well government has managed to incentivize compliance with regulations and promote sustainable use of forest resources.
IR indicator 9. Community Delimitation Certificates issued	This indicator measures the number of community delimitation certificates issued as a result of the project.	This indicator measures if community land rights have been secured through community land delimitation, which contributes to sustainable landscape management.
IR indicator 10. Completion of activities in the annual strategic action plans (SAPs) of the participatory multi-stakeholders Landscape Forums (MSLF) (Percentage)	This indicator measures the achievement of the MSLFs of their strategic plans. The plans are developed and agreed upon jointly by members of the MSLFs.	The indicator reveals if the project was successful in enhancing landscape-level dialogue and multi-stakeholder decision-making on resource use, contributing to integrated landscape management.

FOREST GOVERNANCE ASSESSMENT INDICATORS Nationally adapted from the FAO and PROFOR *Framework for Assessing and Monitoring Forest Governance*[40]	
Theme	**Indicator**
Policies and sectoral development plans	National development policies promote the sustainability of forests.
Land-use plans and sustainable forest development	Land-use plans are consistent with forest objectives and priorities.
Human resources, materials, and technologies	Forest institutions have adequate transport and communication means, programs, and staffing of adequate quality and quantity to fulfill their functions and necessities.
Incentives and support for the development of sustainable forest enterprises	The government is committed to the development of small and medium forest enterprises that use forests sustainably.
Best practice guidelines for forest management	The government has supported adoption of a certification system and use of a system to track timber along the production chain.
Participation of stakeholders	There is a functioning mechanism that facilitates participation of stakeholders and local communities in decision-making in the forest sector.
Transparency	Forest licenses are allocated and forest products are traded through transparent processes free of corruption
External audits and evaluations	Independent entities regularly conduct audits and external evaluations.
Competence and qualifications of technicians	Forest institutions hire technicians on a public, competitive basis, and those selected are the most qualified and meet the requirements of the positions.
Resources for field tasks	Technicians in the field have the right competencies and resources (human and material) to complete their tasks successfully.
Quality and effectiveness of information systems	Forest institutions use information technology that is adequate for their needs and have competent staff for its effective use.
Forest data	There is an updated inventory and forest growth data for all forest types in the country, and the data are used in planning and decision-making by production units and at the district, provincial, and national levels.
Forest law enforcement	The government has adequate capacity to enforce forest law. Forest enforcement covers the whole forest production chain.

These indicators were shortlisted from a list of 60 nationally adapted indicators that were scored at the 2 assessment workshops in Cabo Delgado and Zambezia. The selection of the 13 above is based on: 1) priority indicators identified during the workshops; and 2) expected results from MozFIP. Of the 29 priority indicators, 6 are included in this list above. The other 7 were selected through an exercise between the WB team and a national forest expert, as they are areas in which MozFIP expects to produce results. Cumulatively, they cover the interventions in MozFIP that seek to improve forest governance in Mozambique.

[40] This Framework provides a comprehensive list of the major elements that describe forest governance and, through a scoring process designed to be participatory and collaborative, aims to qualitatively diagnose the state of forest governance at a given time (http://www.profor.info/sites/profor.info/files/ForestGovernanceFramework_0.pdf).

ANNEX 5: DESCRIPTION OF THE ZAMBEZIA AND CABO DELGADO LANDSCAPES

COUNTRY: Mozambique
Mozambique Forest Investment Project

1. **The landscapes under MozFIP cover an area of 90,198 km^2 and a population of 2.9 million inhabitants, of whom 75 percent are rural and 58 percent below the poverty line.** These landscapes are generally known for having a wealth of natural resources, with similar levels of threat to their sustainability. There is high investment potential in natural resource-based sectors in fields ranging from gas and mining to agriculture and forestry, but they differ from each other in important respects and are thus described separately.

Province	District[41]	Total Area (Km^2)	Total[42] Population	Rural Population	Rural Population (%)	Poverty Incidence (%)	Forest Area (1,000 hectares)	Deforestation (% annual) 2000–14
Zambézia	Alto Molócue	6,375	391,083	275,232	70.4	60.33	339.8	0.85
	Gilé	9,042	201,336	201,336	100.0	66.50	620.6	0.51
	Gurué	5,664	416,532	208,155	50.0	59.81	258.7	0.74
	Ile	5,622	335,554	335,554	100.0	67.34	103.7	1.07
	Mulevala	*The District was recently disaggregated from Ile, data not available*					134.1	0.56
	Maganja da Costa	7,674	318,219	296,137	93.1	60.70	192.4	0.59
	Mocubela	*The District was recently disaggregated from Maganja da Costa, data not available*					295.6	0.26
	Mocuba	8,803	395,533	170,439	43.1	61.86	633.5	0.52
	Pebane	10,182	228,731	205,150	89.7	57.77	646.1	0.5
SUBTOTAL-Z		53,362	2,286,988	1,692,003	74.0	56.09	3,224.50	0.62
Cabo Delgado	Ancuabe	4,984	122,269	122,269	100.0	69.28	277.3	0.44
	Ibo	75	12,063	4,774	39.6	57.42	2.8	0.46
	Macomia	4,252	92,231	63,923	69.3	65.75	311.7	0.57
	Meluco	5,799	26,277	26,277	100.0	67.55	420.3	0.21
	Metuge	1,612	84,222	84,222	100.0	64.64	89.7	0.38
	Montepuez	17,964	233,903	137,534	58.8	62.86	531.8	0.12
	Quissanga	2,150	40,573	40,573	100.0	66.48	122.1	0.54

[41] Some data for the pairs Ile/Mulevala and Maganja da Costa/Mocubela are shown together given that the districts were recently separated and there are not official statistics available for the new administrative units.
[42] Total and rural populations are based on 2016 projections by Mozambique's National Statistics Institute based on the 2007 census data.

SUBTOTAL-CD	36,836	611,538	479,572	78.4	65.16	1,755.7	0.32
TOTAL	90,198	2,898,526	2,171,575	74.9	58.00	4,980.2	0.47

Zambezia Integrated Landscape

2. **Demographic information and poverty trends.** The Zambezia Integrated Landscape has a population of 2.3 million spanning an area of 53,362 km^2. Approximately 56 percent of the total population lives below the poverty line, and approximately 74 percent may be considered rural. Variation across the district is not insignificant, ranging from 200 thousand people in Gilé to 416 thousand in Gurue; poverty incidence ranges from 58 percent in Pebane to 67 percent in Ile.

3. **Physical and geographic characteristics. The landscape is characterized by humid mesothermal and subhumid climates. Mean annual temperatures vary according to topographic region**. In Zambezia, mean temperature varies between 26°C in Quelimane to 18°C in the highlands of Namuli, in Gurue. Annual rainfall varies from 1,000 to 1,200 mm in the coastal region to 800 to 1,000 mm in mid Zambezia to 1,200 mm in the highlands, particularly in Gurué.

4. **Natural resources – water, soil, and forests – and biodiversity.** Two of the thirteen major water basins[43] in the country (Ligonha and Licungo) are located in the landscape. The five other water basins found in the Zambezia Integrated Landscape are Molócue, Mulela, Nipiode, Raraga, and Mungueze. There is significant untapped potential for development of sustainable irrigation in the region. Studies that the Agricultural Research Institute of Mozambique conducted in the late 1990s (e.g., Folmer et al., 1998) indicate high levels of nutrient depletion and a decrease in soil fertility driven by existing cropping systems, particularly on maize and cassava plantations, in Zambezia. The landscape also coincides with areas of high erosion hazard based on factors such as slope, soil erodibility, soil erosivity, and land cover. There are approximately 3.2 million hectares of forest area within the landscape (2014), which is equivalent to approximately 60 percent of the landscape's total area, but approximately 59 percent of the total forest area in the landscape is located in three districts: Mocuba, Gilé, and Pebane. Miombo dryland forest is the predominant type of forest cover in the province, supplying significant quantities of timber and biomass energy. Although firewood collection is intrinsically linked to slash-and-burn agriculture in the region, most charcoal is not produced on agricultural fields (between 80 percent and 92 percent in northern Zambézia, depending on the district).[44]

5. **Biodiversity**. **The area encompasses several biodiversity hotspots which have protection status through the Gilé National Reserve**. Established in 1932 in an area of approximately 2,861 km^2 in the districts of Gile and Pebane, the Gilé National Reserve has exceptional biodiversity and contains various critically endangered species, as well as granitic inselberg habitats of significant interest. The Gilé

[43] Mozambique's most important water basins are Maputo, Umbeluzi, Incomati, Limpopo, Save, Buzi, Pungoé, Zambeze, Licungo, Ligonha, Lúrio, Messalo, and Rovuma.

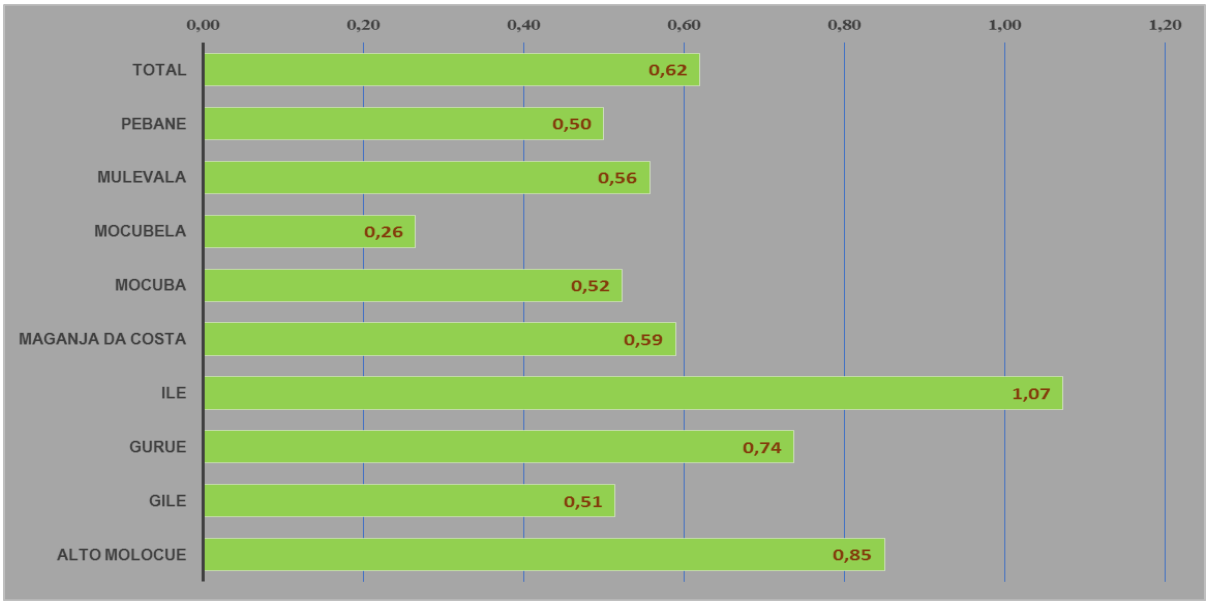
[44] A study commissioned by MITADER (EtcTerra, 2015) encompassing seven districts in Zambézia – Gilé, Ile, Pebane, Alto Molocue, Mangaja da Costa, Mulevala, and Mocubela – has uncovered interesting and relevant dynamics related to the charcoal production and value chain in the region. For instance, in each district, the radius of the supply basin is approximately 22 km on average, with approximately 487 people working as charcoal producers (although it reaches 930 in Alto Molócue), which is equivalent to approximately 1,866 hectares/year of deforestation and forest degradation (reaching 4,382 hectares/year in Alto Molócue).

National Reserve area was heavily damaged during the civil war, and the pressure on its natural resources (timber extraction, poaching) is high, but it still serves as a major barrier to deforestation; deforestation in the surrounding area averaged 0.28 percent between 2005 and 2013 and 0.01 percent within the Reserve during the same period. The landscape also contains other biodiversity hotspots, although they currently are not protected, such as Mount Namuli. Recent expeditions (2007, 2014) to Mount Namuli, in Gurue District, have revealed a significant number of species – plants, birds, reptiles, insects – that do not exist anywhere else in the world. The area is scenic, with potential for development of ecotourism. Threats to Namuli's conservation include human settlements, agriculture, and fires, all leading to significant deforestation in the area.

6. **Key investments. The landscape comprises districts in the two growth poles that the government has prioritized and defined in the Ministry of Economy and Finance's Integrated Investments Program (2014-2017) for infrastructure development: the Nacala Corridor (including all project districts except for Mocuba) and the Zambeze Valley (including Mocuba)**. Key large-scale investments in the region include the recently finalized construction of a new section and rehabilitation of old sections of the railway connecting the coalfields in Moatize (Tête province) to a port in Nacala (passing through Gurué) and investments in eucalyptus plantations. Companies undertaking sizable investment in plantation forestry in the landscape include Green Resources in Alto Molócue and Portucel in Ile, Namarroi, and Mulevala. Portucel is expected to invest approximately US$2.3 billion and promote more than 200,000 hectares of plantations to establish a transformative pulp and paper industry in Mozambique, with plantations in the, Namarroi, and Mulevala districts, along with other districts in Manica outside the targeted landscape. Portucel's first-phase investment has received approximately US$32.0 million from IFC, including advisory services focused on their community development program.

7. **Threats to the Landscape. This Landscape is currently undergoing high forest cover loss.** From 2000 to 2014, the area lost approximately 268 thousand hectares of forests, representing an annual deforestation rate of 0.62 percent. This is well above the national average of 0.23 percent. The causes of deforestation are primarily small-scale slash-and-burn agriculture, followed by charcoal production and sale in the nearby (and sometime further) urban centers and illegal timber extraction (Mercier et al., 2015).[45] Although commercial agriculture is not considered a significant driver of deforestation today, it could become so if growth corridors that the government envisages are developed without adequate spatial and land-use planning. In addition, although data are limited, erosion is assumed to be a significant problem, given that the Landscape encompasses some of the areas that are most vulnerable to erosion in the country. Uncontrolled wild fires are also a constant threat to the Landscape, contributing to deforestation and erosion. Associated with that is the degradation of waterways, especially as riparian forests are systematically removed to make way for agricultural lands.

[45] Mercier et al. (2015) focus on seven districts in Zambezia, all of which coincide with districts comprising this project's landscape. Key drivers described are based on modeling conducted by Winrock (2015) coupled with ground truthing and additional research undertaken by the authors.



Cabo Delgado Integrated Landscape

8. **Demographic information and poverty trends.** The Cabo Delgado Integrated Landscape has a population of 611,000 in an area of 36,836 km^2. Approximately 65 percent of the total population in these districts lives below the poverty line, and approximately 78 percent may be considered rural. As in the Zambezia Landscape, variation between districts is significant, with a population ranging from 12,000 people in Ibo to 234,000 in Montepuez – the largest district in the coverage area – and poverty incidence ranging from 57 percent in Ibo to 69 percent in Ancuabe.

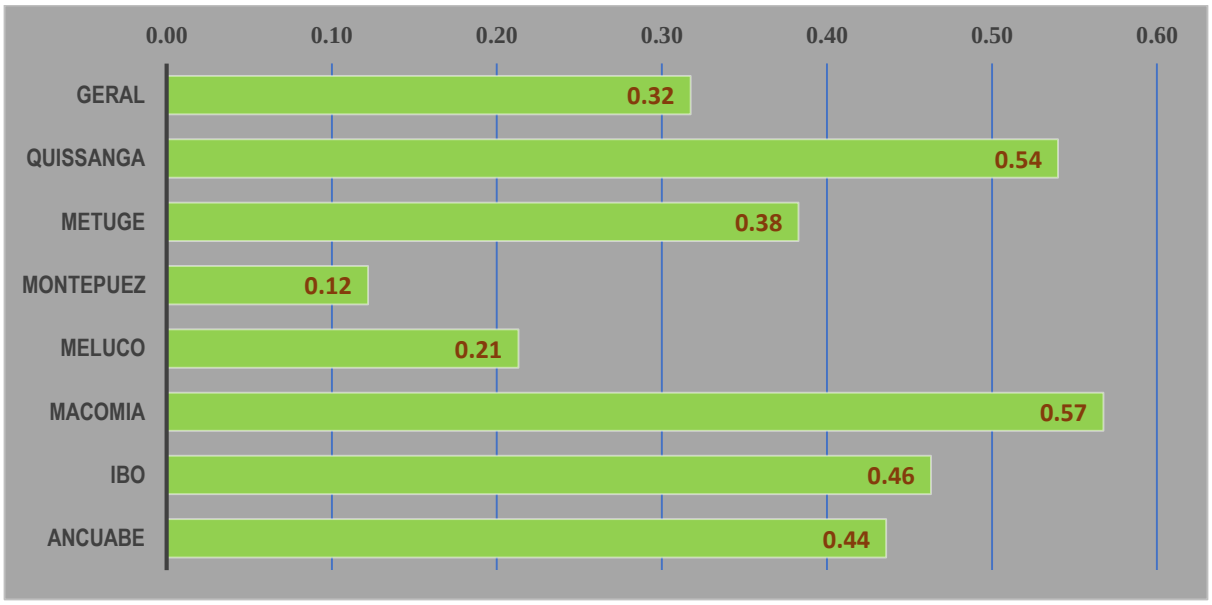
9. **Physical and geographic characteristics. The Cabo Delgado Landscape is located in the northeast of the country, with the Rovuma River as a northern border with Tanzania and the Indian Ocean as its eastern limit. It has humid mesothermal and subhumid climates. Mean annual temperatures vary according to topography.** This landscape combines a variety of soils and habitats, from low-altitude areas along the coast to medium-altitude areas inland with a number of granite outcrops (inselbergs). In Cabo Delgado, mean temperatures vary between 20°C and 26°C. Annual rainfall ranges from 1,200 to 1,500 mm in the coastal region and 800 to 1,200 mm in the interior. Because of the influence of wind currents, the coastal areas have higher relative humidity (80–83 percent than inland (68–69 percent).

10. **Natural resources – water, soil, and forests. The Montepuez River is at the core of the main water basins that traverse the Cabo Delgado landscape.** Other rivers include Muaguide and Megaruma, and a number of smaller streams are present in the coastal areas. The area also has two important lakes with permanent water – Bilibiza and Cacavero. In the Cabo Delgado Landscape, the districts with the greatest forest cover are Montepuez (532,000 hectares) and Meluco (420,000 hectares), and those with the lowest are Ibo (3,000 hectares) and Metuge (90,000 hectares). The miombo forests dominate the forest cover of

the province and of the Cabo Delgado Landscape, and mangrove forests, concentrated in a few areas along the coast, account for the lowest forest cover. The area includes some key terrestrial and marine biodiversity habitats, which led to the establishment of Quirimbas National Park in 2002. The Park is home to protected and endangered species such as elephants, lions, leopards, and other mammals on the land and marine turtles, mangrove fish, dolphins, coral reefs, and other marine life.

11. **Key investments**. The key large-scale investments in the province are related to the oil and gas sector, which are located in the north of the province along the coast. In the Cabo Delgado Landscape, there are only small to medium-scale investments related to forestry, tourism, and agriculture.

12. **Threats to the Landscape. Forest cover loss is increasing in the landscape.** From 2000 to 2014, the annual deforestation rate in the Cabo Delgado Landscape was estimated at approximately 0.32 percent, and the growing trend is troubling. The medium to high population densities are associated with the high levels of deforestation, being evident in the cases of the administrative posts of Quirimbas, Macomia, Mapupulo, Montepuez, Mucojo, and Mahate. Recent studies conducted in the landscape found small-scale slash-and-burn agriculture to be the key driver of deforestation, and timber exploration and charcoal production were the key drivers of forest degradation. Uncontrolled wild fires are also a constant threat to the landscape, contributing to deforestation and erosion. Associated with that is the degradation of waterways, especially as riparian forests are systematically removed to make way for agriculture lands. Within the Quirimbas National Park, poaching has also been a key threat. Wildlife poaching has been increasing, specially targeting high-demand species such as elephants. As a result, elephant populations have dropped by almost 40 percent in less than 5 years, from an estimated 517 in 2011 to 329 in 2014.



ANNEX 6: LAND POLICY AND ADMINISTRATION IN MOZAMBIQUE

COUNTRY : Mozambique
Mozambique Forest Investment Project

1. **This annex details the institutional and legal context of the land sector in Mozambique as of October 2016.** It includes the policy, legal, and institutional framework and status of land rights in Mozambique; risks arising regarding the definition of land-use rights and presentation of the various ways for acquiring land for agricultural investment; land conveyance, expropriation, compulsory acquisitions, and resettlements; perspectives of the land sector in Mozambique and implications for the project; and LTR in Mozambique and the project area.

The Policy, Legal, and Institutional Framework and Status of Land Rights in Mozambique

2. **The National Land Policy for Mozambique, which entered into force in 1995, is premised on the idea that the land belongs to the state.** The recognition given to the legitimacy of customary land management systems and to rights acquired through informal and customary occupation is a key element of the policy, later incorporated into the Land Law (Law 19/1997). The law introduces what may be called long-term leaseholds (DUATs), which can be acquired by occupation according to customary norms and practices, good-faith occupation (uncontested occupation over a period of 10 years), or the award of discretionary concessions by the state.

3. **This legal framework contains innovative approaches to securing land rights**, including establishing a single land tenure right, the DUAT, which is an exclusive, inheritable, transmittable (subject to state approval) right and applies to newly requested and customary land occupation and use; recognizing DUATs obtained through customary and good-faith land occupation (formalizing customary rights through the operation of the law); providing investors secure rights through a renewable 50-year state land lease;[46] requiring new DUAT applicants to engage in consultations with local people to determine whether the land requested is occupied and, if so, establish the conditions for the investor to take over the referred land; and formalizing the participation of local people in land resource management and NRM (as in the consultation process above).

4. **Article 12 of the Land Law sets out three ways in which a DUAT may be acquired:** by customary occupation (occupation of land by individuals or local communities in accordance with customary norms and practices, as long as these do not contradict the constitution), by 10 years of good-faith occupation (uncontested occupation and use of land by individual nationals), and by award (authorization of an application submitted by a natural or corporate person). Only nationals can gain DUATs by occupation (options 1 and 2); the third option is open to national and foreigners who wish to invest in Mozambique.

5. **The land delimitation process plays a key role in the legal framework of Mozambique's land management system.** The vast majority of people in rural areas have use rights acquired through their local customary structures, and the law allows these structures – local communities – to hold a collective DUAT over the area within which they have jurisdiction. Delimitation identifies these structures and the areas they occupy and manage; at the subcommunity level, hundreds of households enjoy customary

[46] Also attributed as a DUAT, but awarded with specific conditions attached

rights that are also legally DUATs acquired by occupation and managed according to local norms and practices. The key implication of this reality is that is community-held and managed collective DUATs cover most of the land in Mozambique.

6. **The delimitation process is defined in the Technical Annex of the Land Law as a flexible and participatory mechanism through which local communities[47] confirm their right to occupy and use land.** Delimitation can be applied to traditional units based on clans or chieftainships, extended families, or simply a group of neighbors[48] and achieves two important legal and practical objectives: it proves the existence of the DUAT by occupation and it establishes the spatial characteristics of that right, including its limits and the presence of public and customary rights of way or of any other interests over the land in question. A map of the community DUAT with any other information (e,g., rights of way) is subsequently registered in the cadastral atlas, and a community delimitation certificate is issued in the name of the community.

7. **The majority of the acquired rights in Mozambique are not identified on the cadastral atlas maps because they have not been registered.** These rights are protected by law, and mechanisms aimed at guaranteeing that they are not allocated to others without the consent of the existing holders are part of the legal framework – for instance, the community consultations subsequently described. This is the case with community lands, the vast majority of which have not been delimited, and with individual plots occupied by good-faith occupants.

Risks Arising with Respect to the Definition of Land-Use Rights and Mitigation

8. **Poorly designed and implemented community land delimitation processes can enable exclusion rather than improve community land tenure security.** Communal lands in the country are frequently managed through hierarchical customary structures that evolved little since the colonial times. Poorly conducted community land delimitation frequently recognizes the limits of existing political jurisdictions uncritically, unintendedly improving the political position of local chiefs in detriment of community-owned management over their respective communal territories. Ineffective community land delimitation also frequently results in other exclusionary processes, often impacting negatively on women and other vulnerable groups. Additionally, making boundaries visible through delimitation may well bring to the fore existing latent land conflicts, creating short-term land management challenges. This frequently occurs when important resources over which ownership boundaries are fuzzy exist (e.g. water body and surrounding wetlands shared between two or more communities) and/or where ownership rights are arguably changing at an accelerated pace. These and other risks need to be mitigated through effective planning, implementation and monitoring of community land delimitation.

[47] The legal concept of the local community is defined in the Land Law by incorporating a range of different land uses and groups of families and individuals who collectively safeguard their common interests. Through the delimitation process, communities define themselves and the areas of land over which they claim a collective DUAT and management rights. This self-definition approach using low-cost fit-for-purpose methods is well suited to a country like Mozambique, where numerous cultural and geographical contexts determine land occupation and use. Hence, a local community in the north might look very different and be of a quite different size from one in more densely populated areas (e.g., close to Maputo or coastal areas).

[48] In light of resource scarcity, the first Community Land Conference (2010) encouraged delimitation efforts to be focused on areas with social and economic importance within the community, without losing sight of other objectives and reasons for the delimitation, including demand from communities or existence of conflicts over land and other natural resources.

9. **The limited land rights registration contributes to conflicts over land rights, which are increasingly common in Mozambique.** The incompleteness and inaccuracies in the cadastral register, combined with even more-limited legal registration of rural land parcels in the *Registo Predial*,[49] generate situations in which parties have been awarded rights to overlapping parcels of land, resulting in conflicts. Moreover, there is a risk that the planned infrastructure investments affect the value of and demand for land in certain areas, pressuring the weak land administration system and leading to further conflicts and overlapping rights. DINAT neither reports on conflicts systematically nor disaggregates data according to any relevant typology. DINAT's annual reports often point to several causes of conflicts, including poor dissemination of legislation to local communities, weak community consultation processes, disputes over boundaries between communities and investors (foreign and national), and nonrigorous delimitation of areas. The lack of transparency regarding land holdings, land availability, and investment plans makes it difficult to ensure public accountability.

10. **Consultations and negotiation processes with communities and rural dwellers are mandatory and should mitigate key risks related to the definition of land-use rights, but there are still gaps in the legislation.** The Land Law (article 13(3) and article 24(1)(c)) and the Land Law Regulations provide the legal basis for mandatory consultations. According to these, anyone who is seeking a new DUAT by authorization should consult the local community, which is the holder of the DUAT. If the land is occupied, the consultation is to determine 'the conditions of partnership through which the holder (community) gives up its right (to the investor). Many contend that Decree 43/2010 seeking to detail the consultation process has instead caused more ambiguity by shifting the focus of the consultation to the statutory consultative councils that Decree 11/2005 (Regulations to the Law on Local Organs of the State) established. The result is a mixing of private citizen and public consultations and a weakening of the right that those who occupy the land in question have to authorize changes to the constitution, nature, or holding of their (land) rights. A further amendment to the consultation process was introduced through Ministerial Diploma 158/2011, creating a two-stage system of consultations spread over a maximum period of 30 days involving a first meeting to provide information to the community and interested parties and a second meeting to receive feedback from their consideration of the application. Having at least two meetings is a positive step, but the diploma does nothing to address the ambiguities regarding the role of consultative councils instituted in the earlier decree. Many conflicts then result when local people contest the occupation of their land by a new DUAT holder who the community authority and consultative council have approved. For this reason, the project emphasizes securing community land rights (as well as individual farmer groups land rights) as the foundation for efficient and inclusive NRM. The project views LTR not as a technical process but as a process of community mobilization and capacity strengthening.

Land Conveyance, Expropriation, Compulsory Acquisitions, and Resettlements

11. **Although the transfer of "bare" DUATs between third parties is prohibited, such transactions occur on a widespread basis in Mozambique.** This is done in two ways that use aspects of the law to facilitate the de facto sale of land. The first involves the sale of "improvements" on the land, which can

[49] Overseen by the Ministry of Justice, the *Registo Predial* (Real Property Registry) guarantees land-use rights by making them public and protecting the land rights holders against claims by third parties. Although this registration is available, it is not compulsory under the regulations. In the case of DUATs acquired through occupation, the lack of cadastral title or property registration does not affect, in theory, the enforceability of the land-use right.

be held as private property; the DUAT is then transferred to the buyer of the improvement (although this is subject to the public land agency approval). The second involves the transacting to shares in companies that hold DUATs over parcels of land. When a company holds the land title, transmitting some or all of the company's shares effectively transfers control over the land that the company holds.

12. **There is also a thriving informal DUAT market. Informal (acquired) DUATs are often exchanged through sale or lease agreements between the holders.** When an association has been awarded a general DUAT over a collective area, members of the association frequently then transfer specific plots within this area, and the association verifies the occupation and allocation to the new members. This has taken place mainly in rapidly urbanizing areas, under the purview of local authorities.

13. **In theory, failure to comply with the criteria relating to demarcation of the land and fulfillment of the development plan,[50] which are legally required, means that the title should be revoked**, although the title is generally not revoked, for reasons ranging from lack of political will to capacity constraints with regard to monitoring and enforcement. The government is transferring the mandate over enforcement to the newly created National Agency for the Control of Environmental Quality (*Agência Nacional para o Controlo da Qualidade Ambiental*) housed in MITADER, which will lead to a clear separation between DUAT and community delimitation certificate awarding and enforcement. Results from the latest national land-use audit (2009–2015) that DINAT conducted are presented in Table A11.1.

	DUAT Fully used		DUAT Partially used		DUAT Not used		DUAT Redimensioning		DUAT Cancellation	
Province	No	Area (ha)	No	Area (ha)	No	Area (ha)	No	Area (ha)	No	Area (ha)
Maputo	351.00	59,970.79	454.00	72,663.57	166.00	23,586.76	-	-	24.00	1,579.00
Gaza	397.00	215,282.14	277.00	418,296.16	351.00	80,188.25	16.00	10.00	67.00	94,870.00
Inhambane	115.00	96,023.99	80.00	22,999.38	206.00	63,818.51	168.00	43,370.28	36.00	777.75
Sofala	542.00	322,174.85	62.00	43,453.96	289.00	287,993.55	29.00	15,783.00	-	-
Manica	564.00	190,337.92	125.00	77,940.98	236.00	156,536.54	22.00	5,720.40	1.00	27.00
Tete	134.00	2,123.13	177.00	28,741.81	70.00	9,924.53	43.00	2,980.93	14.00	3,063.00
Zambézia	840.00	172,471.51	299.00	199,245.88	313.00	279,605.86	12.00	3,331.27	22.00	11,033.00
Nampula	316.00	113,928.07	156.00	50,940.92	93.00	25,359.86	122.00	45,719.67	23.00	3,497.98
Cabo Delgado	196.00	38,894.21	115.00	18,795.84	121.00	52,251.65	41.00	4,222.05	7.00	965.33
Niassa	142.00	131,206.08	53.00	89,964.72	73.00	34,064.58	21.00	9,522.63	3.00	607.00
Total	**3,597.00**	**1,342,412.69**	**1,798.00**	**1,023,043.22**	**1,918.00**	**1,013,330.09**	**474.00**	**130,660.23**	**197.00**	**116,420.06**

Table A11.1. Results of Land-Use Audit 2009–2015

14. **According to Article 82(2) of the Constitution of Mozambique, "Expropriation may take place only for reasons of public necessity, utility, or interest, as defined in the terms of the law, and subject to payment of fair compensation."** According to legislation in force, there should be no compensation paid

[50] The development plan is basically a document from the land holders that specifies how they will use the land. Neither the investment proposals nor the development plans are made publicly available.

for land itself, because it belongs to the state, but rather for any built structures, trees, or crops farmed. Compensation for cultivated land usually involves compensating the loss from standing crops, although the Territorial Planning Law introduces the concept of loss of future use and how this should be included when compensation is contemplated.

15. **Resettlement and compensation in cases of compulsory acquisition are discussed in Ministerial Diploma 181/2010 and Decree 31/2012.** Ministerial Diploma 181/2010 addresses resettlement in the context of compulsory land acquisition as part of territorial planning processes. It includes payment of compensation on the basis of established tables of property values and depreciation over time. The loss of rural lands is compensated against the basic principle that the land itself cannot be compensated; only standing crops and trees are accorded any value. Compensation values are calculated using a formula that includes references to the development stage of annual crops. Decree 31/2012 further provides safeguards for people displaced and resettled by economic activities and development projects, although there are significant gaps. For instance, the decree provides for the consideration of environmental characteristics such as soil fertility but fails to establish clear standards for the type and quality of replacement land, access to water supply, timing of moves to avoid disruptions to farming cycles, and technical assistance for those who adapt or change their livelihoods.

Organization, institutional structure, and functioning at the district level

16. **At the district level, land management and administration is under the responsibility of SDAEs through their inspection and licensing sectors and under the responsibility of SDPIs through their territorial planning division**. Decree n. 6/2006 presents the organic structure of district governments and describes the functions of all existing district services. Nevertheless, whereas it is clear that issues related to land relate to SDPIs and SDAEs, there is no clarity with regard to which of these two institutions is responsible for managing land resources. This contrasts with the provincial level, where similar functions are described clearly as the responsibility of the DPTADERs.

17. **A survey conducted in August 2016 covering five of the nine districts in the MozFIP Zambezia landscape verified that only three (Mocuba, Gurue, Alto Molócue) had technical staff dedicated to land management and administration in their respective SIDAEs**. To address this deficit, SPGCs make technical officers based at the central level, in provincial capitals, or in neighboring districts available when needed, which leads to unnecessarily lengthy processes.

18. **A major and widespread problem is the lack of observance of District Land-Use Plans (*Planos Distritais do Uso da Terra)*, which creates obstacles for implementation of investments and leads to inefficient use of land**. The same survey verified that, in certain cases, local government authorities did not know that they had produced and approved zoning plans. The quality of many District Land-Use Plans produced is also questionable.

Perspectives of the Land Sector in Mozambique and Implications for the Project

19. **Land in Mozambique has always been subject to political control, as well as being recognized as the subsistence base for the majority of the population**. With the shift to a market economy in the early 1990s, the insistence on maintaining the principle of state ownership had to be reconciled with the need to

stimulate new private investment in land, requiring some kind of secure and exclusive privately held land right. The answer to this challenge is the DUAT – a kind of long-term state leasehold offering investors and local people the security of tenure they need to be able to make long-term investment decisions.

20. **The 1997 Land Law integrated customary rights of land occupation and management in a single, unified law by recognizing customary occupation as one way of acquiring the DUAT and providing for new, private sector interests to acquire DUATs through requests to the state.** Mandatory negotiated access to land that is already occupied opened the way for local people to engage with investors and secure real benefits in return for giving up or sharing land rights. The 1997 law has worked relatively well; local rights are taken into account, and investors participate in community consultations as part of the process of obtaining a new DUAT.

21. **Nevertheless, the law has not achieved its full potential for promoting equitable and sustainable development.** There are not many successful community–investor partnerships, and available evidence shows that consultations are mostly cosmetic in real terms, with communities being obliged to give up their land for projects deemed to be in the national interest. With high rates of economic growth in recent years, surging demand for land has placed communities at even greater risk of land capture by powerful interests, often with state backing.

22. **Yet, millions of hectares of land remain unused. This land is often in areas where communities have extensive DUATs acquired by customary occupation, but even in concession areas, investors have failed to use more than 5 percent to 10 percent of the land they have been allocated.** Some see the law and local rights concerns as a constraint on investment. Rather than the law being the problem, there is wide recognition that public land administration does not have the capacity and training to fully exploit the available legal mechanisms and operates in isolation from wider development and investment programs. Not only can new DUAT applications take years, but opportunities for investors and communities to work together are not followed up, and land remains unused.

23. **With communities and smallholders with customarily acquired DUATs still occupying most rural land, the challenge is to find a way to bring investors in without prejudicing local livelihoods and, where possible, in ways that can generate active and mutually productive relationships between the two sides.** The win–win scenario of investors securing land and then running projects from which communities also benefit in real, poverty-alleviating ways is an option that needs to be explored with more force, commitment, and direction from government and partners.

24. **The project offers an excellent opportunity to do this. By starting from the premise that there are local rights over investment land, communities are treated as active stakeholders in new development initiatives; the project then creates the conditions for local people and investors to work together in new economic enterprises.** By integrating community land-use plans into this picture and enhancing local management of land and natural resources, the project also addresses important environmental sustainability issues. **Activities such as DUAT titling and community delimitation do not take place in isolation but are instead part of an integrated rural development vision that joins local people and investors together as partners and co-beneficiaries of the investment process.**

Land Tenure Regularization in Mozambique and in the Project Area

25. **LTR activities in Mozambique have been occurring in sporadic, demand-driven fashion, resulting in high costs and limited impact.** Although the regulatory instruments for identifying and registering DUATs acquired by occupation – whether customary or good faith – have been available since early 2001, there has been no systematic, publicly supported program of community delimitation and LTR. NGOs have performed almost all of the delimitation work so far with bilateral direct assistance. The multidonor *Iniciativa para Terras Comunitarias* (iTC) worked in several provinces and included the objective of matching LTR for communities and smallholders with new economic opportunities, including investor partnerships. The current total for delimitated communities is only approximately 450 out of a possible 10,000 communities across the country.

26. **In principle, the collectively held DUAT of each community offers significant protection to the many hundreds of smallholders who live within it and is therefore a cost-effective, all-at-once way of securing local rights.** The Land Law also allows for individuals or subcommunity groups such as extended families or associations to take out a DUAT title in their own name. This process – *desmembramento* in the law – allows the individual right holder to leave community jurisdiction and register their DUAT in the public archives. It requires high-cost site work, high-precision surveying, and placing meter-high cement markers around the plot in question. Legally, all LTR resulting in new DUAT titles should also include this process of demarcation, but this cost has not been included in recent Millennium Challenge Account–supported LTR work in the northern provinces (which focuses only on the rights adjudication and issuing of title documents).

27. **The average cost of a community delimitation in Mozambique is estimated at approximately US$8,000.** This compares with systematic registration in Tanzania at an average cost of approximately US$500 per community, although the procedures are quite different. The Mozambican process includes pre-field work community awareness sessions; creating and strengthening CBOs; an extensive participatory diagnosis and mapping of land-use, occupation, and land management structures; and preparation of formal topographical maps that are then registered in the public archives. The iTC program has also added a community land-use plan to the process, and it is this plan that could form the platform for NRM and investment plans in the project.

28. **The process of delimitation does more than safeguard local rights; it prepares communities (and their internal management structures) to engage with outside interests such as incoming investors and other business (value chain) opportunities.** Although data are limited, there are good examples in Mozambique of the positive effects of community delimitation. As KPMG and the Natural Resources Institute have documented,[51] the iTC-led delimitation of the community of Darue, located in the district of Sussundenga in Manica Province, helped reduce conflicts with illegal timber harvesters and neighboring communities, as well as between *regulos* responsible for Darue, who constantly fought over traditional management of areas in the community, particularly where the local primary school is located. The delimitation process also enabled the development of the Darue Community Development Plan (*Agenda Comunitária de Darue*), which resulted in construction of three new school classrooms and establishment of a partnership between the community and the organization Centro Terra Viva for development of cultural

[51] *Estudo de caso - Comunidade de Dárue, Sussundenga – Manica.* 2009.

tourism in the area, among other initiatives. Other frequently cited examples related to community–investor partnerships that the process of community delimitation supports include the Ndzou camp in Manica – an eco-tourism investment partnership between the Mpunga community in the district of Sussundenga established with financial support from the WB – and the Mozambique Honey Company and its supply network, constituted partly by community honey producers associations with secured community business premises (Mole, Monteiro and Quan, n.d.).

29. **LTR activities in Mozambique could be made more cost effective if conducted in a systematic fashion, whether for collective, community-held DUATs or individual land parcels.** Experience with individual plot LTR in countries such as Rwanda, Namibia, Madagascar, Tanzania, and Ethiopia has lowered the average cost of US$50 per parcel to US$10 to US$20 through the use of aerial orthophoto maps and rectified satellite imagery. LTR work for individual plots in Mozambique has been restricted mainly to peri-urban areas, where households live on fixed plots that are easily identifiable from aerial and satellite imagery. Not counting the demarcation process, the costs are less than US$50 per titled plot. Titling plots in rural areas is more complex, because they often shift over time as people move from exhausted fields to new areas (where they also have customarily acquired DUATs). Other communal rights – grazing, forest use, water – are also important for households and may be overlooked in a conventional plot-by-plot LTR process. To capture the overall bundle of rights of any one household is therefore likely to involve some kind of delimitation style of approach, with correspondingly higher costs. Nevertheless, systematic LTR could be achieved in Mozambique using similar technologies and low-cost options based on a fit-for-purpose methodology.

30. **As in other parts of the country, the project area has a limited number of DUATs allocated in response to requests for new land rights (to individuals and associations). A number of community-held DUATs have also been delimited** (Table A11.2). The large number of delimited communities reflects the fact that NGO-supported projects have been active in these provinces for many years, followed more recently by more delimitations supported by the iTC program. This offers a good platform for developing the strategic vision of the project that seeks to integrate local rights into a wider NRM and investment process.

Table A11.2. Number of DUATs and Community Delimitation Certificates – Project Landscape

		Individual DUATs	DUATS of Associations	Community Delimitation Certificates
Zambézia	Gurué	899	13	20
	Alto Molocue	182	6	32
	Mocuba	157	2	6
	Ile	20	5	7
	Gilé	20	3	10
	Pebane	90	6	12
	Mucubela	19	9	10
	Mulevala	16	4	0
	Maganja da Costa	151	23	7
Subtotal		**1,554**	**71**	**104**
Cabo Delgado	Ancuabe	62	43	7
	Macomia	33	2	2

		Individual DUATs	DUATS of Associations	Community Delimitation Certificates
	Meluco	7	3	5
	Montepuez	67	12	2
	Metuge	141	2	8
	Quissanga	7	0	0
	Ibo	9	0	0
Subtotal		**326**	**62**	**24**
FIP Total		**1,880**	**133**	**128**

Source: DINAT (October 2016).

ANNEX 7: ECONOMIC AND FINANCIAL ANALYSIS

COUNTRY : Mozambique

Mozambique Forest Investment Project

1. **Analysis conducted during preparation indicates that the project interventions are economically feasible and will generate significant and positive benefits that outweigh the costs.**

2. **The project will bring about large economic benefits to society through addressing many of the drivers of deforestation and forest degradation.** The expected economic benefits of this project are numerous, especially in the challenging economic and environmental context of Mozambique. As forest governance and administration are strengthened, tree plantations and agroforestry promoted and management of natural forests improved, there will be multiple social, ecological and economic benefits. Greenhouse gas emissions from deforestation and degradation will decrease and carbon sequestration capacity of the ecosystems increase. Habitat for globally-important biodiversity will be better protected. Some of the benefits are more readily quantifiable (e.g. yields improvements and emissions reduction) while others are less tangible (e.g. strengthened institutions, habitat improvements). This section describes how the quantifiable benefits will be estimated and qualitatively describes the other benefits.

3. **By targeting key districts in the Zambezia and Cabo Delgado provinces in terms of deforestation status, poverty and importance of agricultural production, the project optimizes the economic returns on its activities.** The economic benefits described above are optimized by targeting the project to districts with highest returns to activities. Zambezia and Cabo Delgado provinces were chosen for hosting nearly half of Mozambique's poor, high deforestation rates and important forest assets. Within these districts, a background study ranked the priority of districts for targeting purposes based on deforestation and landscape status, and agricultural practices. Furthermore, there are synergies to be achieved with other WB and donor activities in these provinces such as the MozBio project and IFC's work with Portucel on a pulp factory in Zambezia.

4. **The project's primary areas of intervention are expected to yield multiple categories of benefits, some readily quantifiable (e.g. yield and emissions reductions) and others less tangible (e.g. strengthened institutions and governance).** The expected benefits may accrue to different groups of beneficiaries, at the farm or community level, at the level of landowner, at the level of the Republic of Mozambique, and as global public goods. Some categories of benefits are more readily quantifiable and are estimated in this analysis; the others are discussed qualitatively. Concessioner, farmer and forest plantation incomes are an important category of direct benefits, measured through increased yield potential. Reduced emissions are another category of benefits, where potential values can be estimated. The economic analysis aims to indicate the potential range of positive outcomes associated with the project, measured in monetary terms. It is based on a number of simplifying assumptions; sensitivity analysis illustrates how results vary with the assumptions.

Table 1. Expected and quantifiable benefits by component.

Component	Expected economic benefits	Quantifiable benefits:
Component 1: Promoting Integrated Landscape Management		
1.1. Regularizing land tenure, promoting community-level land use planning and promoting integrated landscape management tools	Productivity gains from land tenure security	
1.2. Promoting Multi-Purpose Planted Forests, Agroforestry Systems and Promoting Sustainable Charcoal Production	Increased forest area Economic benefits to forest plantation operators Increase in agricultural productivity in agroforestry Lower deforestation due to more sustainable ag practices Increased efficiency in charcoal production Avoided deforestation due to more sustainable biomass extraction	GHG benefits of increased forest cover Economic benefits of forest plantations vs current use Economic benefits of agroforestry vs current agricultural practices Value of increased efficiency in charcoal production in 500 kilns
Component 2: Strengthening the Enabling Conditions for Sustainable Forest Management		
2.1. Develop the National Land Use Plan 2.2. Strengthening forest governance	Improved forest management Biodiversity protection Water quality enhancement Efficiency gains by employees Social value of improved trust and accountability	GHG benefits of reduction in deforestation
2.3. Strengthening Natural Forest Management	Avoided degradation through decreased selective cutting Avoided deforestation Sustained concession revenues Maintenance of biodiversity Employment opportunities Increased value added in wood processing Improved concession tax revenue collection	GHG benefits of avoided deforestation Value of improved natural forest management as compared to current practices

5. **Two principal benefit categories are quantified: carbon sequestration and livelihood benefits, but the total benefits are likely to be much higher.** Forest plantation owner, farmer, forest concessioner and charcoal producer incomes are an important category of direct livelihood benefits, measured through increased yield potential or more sustainable yields. Carbon benefits are another category where values can be estimated. The Project's impact on GHG emissions is estimated using the Ex Ante Carbon-Balance Tool (EX-ACT). In addition to valuing the carbon balance at the international carbon price, the benefits of avoided deforestation, afforestation, reforestation and adopting conservation forest and agriculture practices are also captured through the net present value of future cash flows from sustainable forest management practices.

6. **Estimates of the value of reduced emissions and enhanced carbon stocks in natural forests, forest plantations and agroforestry land use types.** The Ex-Ante Carbon-balance Tool (EX-ACT) model, developed by FAO in 2010, is used to assess the project's net carbon-balance. The model, which is described in Annex 10, compares "with project" and "without project" scenarios to arrive at total carbon sequestered and total GHG emitted. EX-ACT estimates that the project could be a net carbon sink of about

20 million tCO2-eq over a period of 50 years, assuming that the agroforestry systems are adopted on 1,950 ha and deforestation rate in the project area is decreased by 30 percent. If the 20 million tCO2-eq is valued at a conservative market value of US$5.5 per ton and assumed to be delivered in even increments over time, the Net Present Value of this stream of benefits (at 6 percent and 50 years) is about two thirds of the project investment costs or US$33 million. Using an economic value of US$30 per ton, the estimated NPV of GHG benefits is US$179 million. These estimates are very sensitive to the assumptions made regarding the impact of the project on the deforestation rate in the project area. Should the project decrease the deforestation rate by 10 percent rather than 30, the sensitivity analysis suggests that the NPV of the GHG reduction will decrease to US$22 million at the US$5.5 market price. With only 5 percent reduction in deforestation, the financial NPV will be US$15 million.

7. **Estimate of the value of forest plantations.** The economic benefits of switching fallow agricultural land to forest plantations were estimated with positive results using conservative estimates of revenues and costs. In the region of Zambezia, the project interventions will support the introduction of forest plantations on fallow agricultural land on plots of at least 20 ha for a total of 5,000 ha. Currently, there is very limited experience with forest plantations in Mozambique and revenue and costs estimates are based on several observed values and international benchmarks (UNIQUE studies). Revenues and costs have been adjusted to reflect the relatively small-scale plantations that will be supported under the project. Following a successful subsidy scheme utilized in Uganda, the project will subsidize half of the planting costs, both labor and non-labor such as nursery, sawing, fertilizer, and irrigation. These subsidies are required due to large cash flow constraints for landowners setting up forest plantations. Indicative analysis based on the 2012 Agricultural census (TIA) suggests that large stretches of fallow agricultural land exist in the region. While the data is not representative of all large farms in the region, these results and fieldwork confirm that there will be sufficient number of candidates to meet the project requirements.

Table 2. Fallow land in large farms is readily available according to the 2012 agricultural census (TIA).

Number of Holdings	Average Holding Size (ha)	Average Cultivated Area	Average Area Annual Crops	**Average Area Fallow Land**	Average Area Pastureland	Average Non-Cultivated Area (> 5Y)
3	767.33	455.00	455.00	**312.33**	0.00	0.00
3	1165.00	458.33	458.33	**376.67**	330.00	13.33
3	1766.67	800.00	800.00	**633.33**	333.33	616.67
3	5988.67	640.00	87.33	**2682.00**	2666.67	1994.33
3	17061.52	9390.00	173.33	**4004.85**	3666.67	0.00
15	5349.84	2348.67	394.80	**1601.84**	1399.333	524.87

Note: The 2012 agricultural census data is not representative for large farms.

8. **The species that will be supported are eucalyptus short cycle (8 years), eucalyptus long cycle (15 years) and pine (22 years).** This mix was selected as it will provide the highest economic returns and balance of cash flows. The adoption mix that is expected and is modeled in this analysis is 6 percent eucalyptus short, and 48 percent eucalyptus long and 48 percent pine. These estimates were derived based on (1) distance from the planned pulp factory; (2) a healthy and resilient mix of species; and (3) diversified

business risk. Eucalyptus short cycle is used for pulp production and is financially viable if plantations are located within 100 km of a pulp factory, based on international experience. The project is being configured taking into consideration the planned Portucel pulp factory. Based on the expected location of the pulp factory and on the background study used to determine priority areas for this project, it is estimated that only about 6 percent of the 5,000 ha will be utilized for short-cycle eucalyptus. Furthermore, international experience with forest plantations suggests that mixed plantation including pine will hedge risks associated with eucalyptus' disease susceptibility and market price fluctuations. Pine also has a solid market base for construction purposes currently in Mozambique. The estimated forest plantation costs and revenues and their international comparators are presented in Table 5.

9. **The small-scale forest plantations in Mozambique are expected to be financially profitable with an average gross margin estimated at US$ 531/ha/year for pine, US$ 65/ha/year for short-cycle eucalyptus and US$ 568/ha/year for long-cycle eucalyptus.** The economic net present value (ENPV) at 6 percent for 5,000 ha is US$ 10.4 million over 50 years. This assumes that it takes 3 years to plant the entire area for better cash management and learning.

10. **Estimate of the value of agroforestry.** Through agricultural extension, the project will work with small-scale farmers who are currently engaged in low gross margin activities in Cabo Delgado and will introduce agroforestry systems for the first time in Mozambique. For the Mozambique ANRLM project, the typical low technology smallholders were modeled to grow maize, sesame, beans and cassava as per Table 3. Short-cycle eucalyptus gross margins will be assumed to be applicable to the tree crops in the agroforestry system due to lack of financial information on other species. Under the project, farmers will be supported to transition to higher value crops such as sesame, soya, beans and tree crops. Productivity will be increased through agricultural extension support and through utilizing agroforestry. Annual crop gross margin are expected to increase by 20 percent. These estimates are in line with international benchmarks for productivity improvements under agroforestry. Table 3 shows the assumptions made for the agroforestry analysis. The ENPV of these benefits for 50 years at 6 percent is US$ 0.7 million for 1,950 ha and its carbon sequestration economic benefits are approximated at US$ 1 million. The potential benefits of this pilot approach could be much larger if agroforestry is adopted more widely in Mozambique but these potential benefits are not captured here.

Table 3. Without and with project gross margins and crop distribution for Agroforestry

Low technology stallholders, Farm size 1.3 ha	Without Project		With project	
Crop	Average gross margin per ha per year (MZ)	Land distribution	Average gross margin per ha per year (MZ)	Land distribution
Maize	4,575	10.0%	6,730	10.0%
Sesame	12,700	15.0%	16,191	21.0%
Soya	9,825		13,038	21.0%
Beans	13,725	35.0%	17,264	21.0%
Cassava	3,950	40.0%		
Tree crops – proxied by eucalyptus short cycle			4,653	26.9%

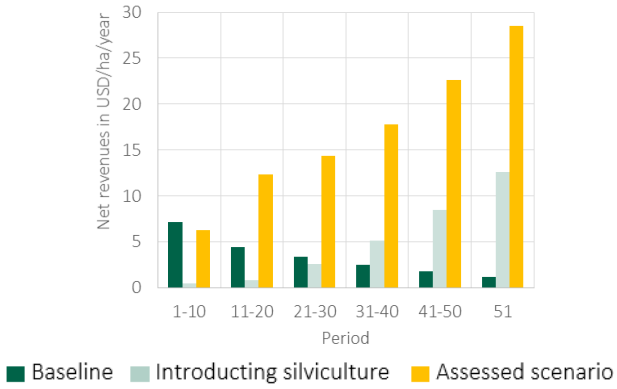
Notes: Improvement in the gross-margins for the annual crops is the same as for the Mozambique ANRLM project. The tree crop gross margins are proxied by eucalyptus short gross margin.

11. **Estimate of the value of increase in biomass production.** For charcoal, the project will involve improvement of the efficiency of approximately 500 charcoal kiln facilities. By changing the way the wood is stacked into the kilns, efficiency of production will be increased by about 28 percent. It is assumed that it will take 3 years to fully spread this efficiency practice. The proposed changes are expected to bring about benefits of US$ 0.2 million per year with an NPV of US$ 3 million of benefits over 50 years.

12. **Estimates of the value of improved natural forest management.** Under the improved forest concession management component, the project will support the 24 concessioners on 600,000 ha of natural forests to transition towards financially, economically and socially more sustainable practices. A background study was conducted to assess natural forest operators and the existing financial model of a forest concession, which estimates a NPV of US$ 83 per ha at 6 percent over 50 years. Potential scenarios for sustainable natural forest management were developed. The scenarios considered were (i) introducing silviculture to enhance productivity; (ii) integration of charcoal production; (iii) use of secondary commercial species; (iv) technology for leveraging economies of scale; (v) forest certification; (vi) multivariate scenarios combining the above options. Combining silviculture, charcoal, economies of scale, and secondary species is expected to deliver the strongest financial and forest results. This scenario will likely deliver NPV of US$ 157 per ha. Thus the estimated financial benefit of this project intervention has a NPV of about US$ 44 million over 50 years and 6 percent discount rate. Achieving this economic return is highly dependent on the success of the project to introduce this combination of 6 new approaches in all of the targeted terrain. If only silviculture methods are taken up, the expected revenues decrease by about half. If less than 24 concessioners are successful in implementing these measures, the returns to this activity will decrease proportionally to the decreased size of the area where new practices are adopted.

Figure 4: Natural Forests: Net revenues resulting from multivariate scenarios

Multivariate Scenario: Introducing silviculture + Integration of charcoal production + Technology and leveraging economy of scale effects + Use of secondary species



13. **Summary Estimate of Benefit vs Cost.** The analysis suggests that the economic benefits of the project match or exceed the costs with just three benefit streams. Combining the estimates of the three benefit streams yields an overall economic benefit-to-cost ratio of 4.9. The economic Internal Rate of Return is

estimated at 27.3 percent, while the financial rate of return is lower, at 8.9 percent, as it is with other forestry projects and is primarily driven by the economic vs financial value of GHG. The payback period for the project is 7 years and the ENPV over 25 years is US$ 119 million and US$ 188 million over 50 years. As previously mentioned, the estimates are highly dependent on the carbon sequestration and its valuation in the market. The livelihood benefits of forest concessions, forest plantations, agroforestry and charcoal processing have a smaller impact than the carbon sequestration. Compared to the significant challenges in the forestry sector in Mozambique, the livelihood benefits in the "without project" scenario are expected to deteriorate further thus these benefits are likely underestimated. The FNPV over 25 years is US$ -2 million and US$ 36 million over 50 years reflecting the lower financial market price of GHG sinks. These estimates suggest that the overall project results will be economically feasible, hence the project should be supported.

Table 4. Economic Analysis

	Undiscounted	**NPV - 50 Years**	**NPV - 25 Years**
Forest Plantations and Agroforestry	104	11.17	2
Charcoal	9	3	2
Improved Natural Forest Management	278	43	20
Improved Carbon Balance	616	179	141
Capital Investment Costs	-42	-38	-38
Recurring Costs	-40	-11	-9
Net Benefit - Total	925	188	119
	BC Ratio	4.9	3.6
	IRR	27.3%	27.1%
	Payback period	7 years	

Table 5. Financial Analysis

	Undiscounted	**NPV - 50 Years**	**NPV - 25 Years**
Forest Plantations and Agroforestry	104	11.18	2
Charcoal	9	3	2
Improved Natural Forest Management	278	43	20
Improved Carbon Balance	113	33	26
Capital Investment Costs	-47	-42	-42
Recurring Costs	-44	-12	-10
Net Benefit - Total	413	36	-2
	BC Ratio	1.7	1.0
	IRR	8.9%	5.7%
	Payback period	18 years	

Notes: Recurring costs annually after Project investment years = 2% (% of investment costs)

14. **Analysis by activity.** The economic analysis is further disaggregated by activity to provide inputs into the highest returns to interventions. The project budget is assigned to the respective activity and sub-component, based on the relative share of the targeted hectares (Table 1). The highest investment is made into Natural Forests followed by forest plantations and agroforestry. The economic benefits assigned to each activity reflect the cash flow model results and the GHG modeling. The ENPV of interventions in the Natural Forest is US$136.5 million over 50 years, 6 percent discount rate. This estimate is highly dependent on the GHG benefits and the interventions achieving a 30 percent decrease in deforestation. Similarly, the non-CO2 related benefits are very dependent on the success of the project to fully utilize sustainable natural resource management practices and add value along the value chains. The interventions in forest plantations bring about an ENPV of US$49.4 million while for agroforestry -- about US$2 million.

Table 6. Economic Analysis – Estimated incremental net benefits by landscape, US$

	Discounted Project Investment Costs (Economic)	Discounted Recurring Costs (Economic)	Discounted Net Benefits - excl. CO2e related (Economic)	Discounted Net Benefits - CO2e related (Economic)	ENPV
Forest Plantations	8.7	2.6	10.4	50.2	49.4
Agroforestry	8.7	2.6	0.7	12.6	2.0
Natural Forests	20.2	5.9	46.2	116.6	136.5
Total	37.7	11.1	57.3	179.3	187.9

15. **The economic analysis is constrained by the multitude of project sites, the socio-economic and environmental heterogeneity among these sites, the geographical disparity, and a significant lack of data for new agroforestry and forestry practices.** The data on forest cover and deforestation is currently being updated with the latest remote sensing methodologies. The data on future agroforestry and forestry gross margins require a high degree of approximation. A baseline study of the costs and revenues from natural forest concessions and other international data on forest plantations is used to construct the models for forest plantations and forest concessions.

16. **Benefits not quantified include improved forest governance and the wider benefits of better landscape management.** This summary estimate does not take into account the value of water retention, water quality, biodiversity, resilience building and risk reduction associated with more sustainable forest cover and agroforestry landscapes. Other benefits not quantified here include the reduced costs, risks and uncertainty (to farmers and the wider society) due to weak land management regimes, conflict over resources and degradation due to poor incentive systems. Increasing land tenure security, creating employment, protecting water sources and maintaining biodiversity have significant potential impacts on the lives of community members in the area, but due to measurement and attribution challenges their impact is not be included in the calculations. Protecting the forest landscape will help communities secure access to resources they depend on, enhancing incomes, livelihoods and reducing poverty. Promotion of sustainable biomass use could decrease deforestation, improve forest management and generate health benefits. Improved implementation and enforcement of legislation will reduce unsustainable and illegal practices and lead to an increase in revenues for the state, while governance and institutional capacity can

improve as an indirect outcome of investments. Quantifying more of the benefits would raise the overall value of the project and the benefit-cost ratio. This raises the confidence that even at the low end of the quantifiable range, the project costs are justified by the benefits achieved.

17. **Rationale for public sector financing.** The project aims to support environment, land and forest management to improve livelihoods and reduce greenhouse gas emissions from land use change and deforestation. These results are mainly global public goods with substantial benefits accruing to Mozambicans. Public financing is justified for this purpose.

Table 7. Gross margin for the forestry plantations in Mozambique

Crop / Area / Project		Timber Pine		Timber Euc Short		Timber Euc Long	
		International reference	Moz Small scale	International reference	Small scale	International reference	Small scale
Revenue in Harvest Years							
Harvest and Replanting in every year x	years	22	22	8	8	15	15
Marketed Production	m3/ha/year	25	20	35	30	30	25
Total Production	m3/ha/year	25	20	35	30	30	25
Farm Gate Price	US$/m3	45	45	20	20	40	40
Price Increase (for sensitivity analysis)	% of base	100	100	100	100	100	100
Revenue in Harvest Years	**US$/ha/rotation**	**24,750**	**19,800**	**5,600**	**4,800**	**18,000**	**15,000**
Annual costs							
Land lease, inkl. CSR activities	US$/ha/yr	30	0	30	0	30	0
Annual maintenance costs year 4ff, including fire prevention		60	72	50	60	50	60
Overheads	US$/ha/yr	130	0	130	0	130	0
Annual costs	**US$/ha/rotation**	**4,600**	**1,296**	**1,480**	**240**	**2,950**	**660**
Non-annual costs							
First year							
Land preparation (clearing)	US$/ha						
Soil preparation	US$/ha	165	198	170	204	165	198
Plantation and maintenance first year	US$/ha	504	605	500	600	420	504
Second year							
Maintenance		240	288	200	240	200	240
Third year							
Maintenance		120	144	100	120	100	120
Pruning							
First pruning		72	86	0	0	60	72
Second pruning		96	115	0	0	80	96
Third pruning		96	115	0	0	80	96
Non-annual costs	**US$/ha/rotation**	**1,293**	**1,552**	**970**	**1,164**	**1,105**	**1,326**
Harvesting costs							
Average harvesting costs	US$/m³	10	12	10	12	10	12
Harvesting costs	**US$/ha/rotation**	**5,500**	**5,280**	**2,800**	**2,880**	**4,500**	**4,500**
Gross margin per rotation	**US$/ha/rotation**	**13,357**	**11,672**	**350**	**516**	**9,445**	**8,514**
Average gross margin per year	**US$/ha/year**	**607**	**531**	**44**	**65**	**630**	**568**

Source: UNIQUE international prices and adjustment to costs and revenues to the Mozambique context.

ANNEX 8: MOZAMBIQUE DEDICATED GRANT MECHANISM

COUNTRY : Mozambique
Mozambique Forest Investment Project

1. The DGM is a special global initiative under FIP to provide grants that enhance the capacity and support specific initiatives of local communities in FIP pilot countries. DGM objectives consider a series of DGM country projects and global component for knowledge exchange and strengthening of networks. The **MozDGM** has a 5-year project execution period. In July 2016, a project concept note was prepared and shared with the interim NSC to support discussions about project components and activities. In October, a FIP WB mission facilitated a MozDGM forum where important actions were taken. The main actions were the definition of criteria to compose the NCS and election of NSC representatives.

2. The **Project Development Objective** is "to strengthen the capacity of local communities, community-based and civil society organizations to participate actively in sustainable forest and land management and REDD+ processes at the local, national and global levels". It is being prepared as a stand-alone project that complements the MozFIP and operates at two levels: the national level (focusing on capacity building and institutional strengthening) and the landscape level (focusing on implementation of activities in the two selected landscapes: **Zambezia and Cabo Delgado)**. It is designed to promote the active participation of **local communities**[52] in **Mozambique's Forest Investment Program.**

3. At the country level, NSC will provide MozDGM with oversight, assisted by a **national executing agency** (NEA). NSC responsibilities are to review and make funding decisions on eligible project proposals, coordinate with and participate in meetings of national REDD+ and FIP institutions, raise funds through other programs and mechanisms, report to the Global Steering Committee on national activities, mediate conflicts related to MozDGM funding proposals, and establish additional eligibility criteria for MozDGM. NSC will prepare, with support from NEA, an annual work plan and funding portfolio for approval by the relevant multilateral development bank (MDB). The WB is the implementing MDB for the DGM in all FIP pilot countries.

4. NSC is composed of two chambers: the **Deliberative Chamber** (CGRN members (6 seats) and local civil society representatives (5 seats) and the **Consultative Chamber** (academics (2 seats), government (3 seats), national and international NGOs (3 seats at minimum), and WB (1 seat). The goal of the consultative members is to provide multidisciplinary advisory and advocacy support. Within NSC, members of the Deliberative Chamber will be elected through landscape forum elections and might consider CGRN and civil society representatives as candidates (vulnerable groups and territorial coverage have been taken into account). The south, center, and north of Mozambique must be represented in the NSC. the Deliberative Chamber will select Consultative Chamber members using a numeric voting process following a list of previously validated criteria.

5. **The NEA will be the secretariat for the NSC.** Selection of the NEA will be through a competitive process that the MDB responsible for channeling DGM resources into the country administers. The NEA will be a nonprofit, nonstate organization that meets the programmatic, fiduciary, and safeguards

[52] In other countries, the DGM also works with indigenous peoples.

requirements of the WB (or other MDB). The NEA will facilitate the work of the NSC, develop country-specific review and risk assessment criteria, and provide operational and financial reporting to the relevant MDB. The NEA will be responsible for disbursing funds to grant projects that the NSC selects, monitoring grant-funded projects, ensuring appropriate use of DGM funds in accordance with the operational and safeguards policies of the respective MDB, and reporting to the MDB. The NEA will also maintain documentation on MozDGM projects; follow the communications strategy in coordination with the global executing agency; manage grievances, complaints, and redress processes; respond promptly to queries; and coordinate with and send information as requested to the global executing agency. The NEA team will have key staff specializing in project management, community mobilization, climate change, NRM, and procurement. The NEA is encouraged to have a support team with expertise on fiduciary aspects, safeguards, and M&E.

6. MozDGM may have the following operational components, which are still tentative and pending further discussions and consultations with the NSC.

7. **Component 1: Capacity Building and Strengthening for Sustainable NRM.** This component will finance capacity-building and institutional-strengthening activities for communities and civil society organizations[53] across the country. The activities aim to strengthen community awareness, network, advocacy, and technical capacity on matters related to climate change, forest and land management, and managerial and grant-making competencies. At the national level, activities will include short-term trainings related to climate change resilience, comprehensive management of natural resources, inclusive business, and land tenure and promote interaction and engagement of communities and civil society through exchange of experiences and the development of an information, education, and communication strategy. At the landscape level, the activities will focus on activities addressing a CDAP. The action plan is mainly supported by the elaboration of a community agenda that highlights a social preparedness process, community land delimitation, identification of a market value chain for local products, and potential stakeholder partnerships. The activities will be implemented through the **CGRNs** and other community-based organizations. The component will also work on community governance regarding benefit sharing, forest monitoring, community participation in law enforcement, and training in fire management and fire management plans.

8. **Component 2: Promoting Sustainable Local Community Initiatives.** This component is related to subproject implementation. The NEA will screen and finance CGRNs or formal CBOs that have confirmed expertise in subproject implementation or a validated CDAP prepared through the process mentioned on MozDGM in Component 1 in the target area. Candidate organizations can apply for MozDGM grants by presenting proposals for projects that will directly or indirectly reduce deforestation while enhancing local livelihoods, including but not limited to food security improvement activities, production and commercialization of artisanal and non-timber forest products, community woodlots for biomass energy production, restoration of degraded areas, sustainable agro-ecological production, and ecotourism.

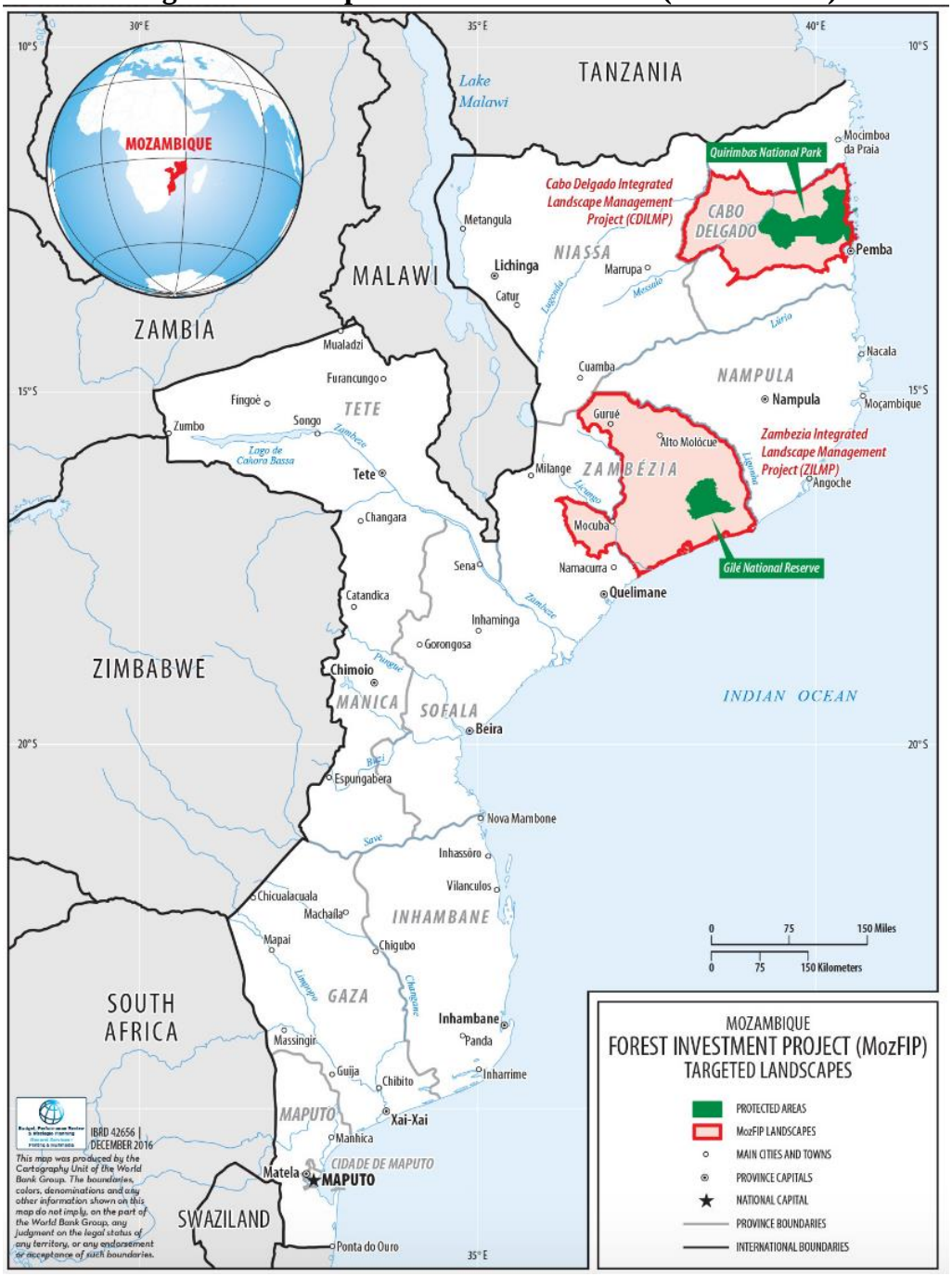
9. A service provider will provide technical assistance to help grantees with implementation and reporting tailored to the needs of the grantee and the technical area of the proposed activity. Such training would be designed to facilitate success of the activity during the project life and into the future.

[53] CGRNs, associations, and unions could be considered community-based organizations. The NSC and NEA will define CBOs.

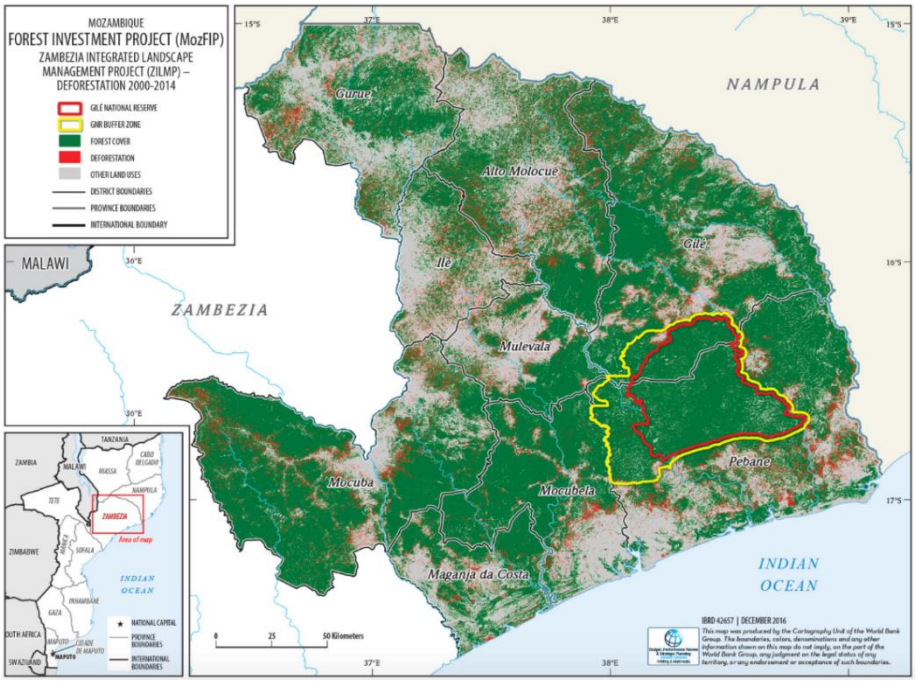
ANNEX 9: PROJECT AREA MAPS

COUNTRY : Mozambique
Mozambique Forest Investment Project

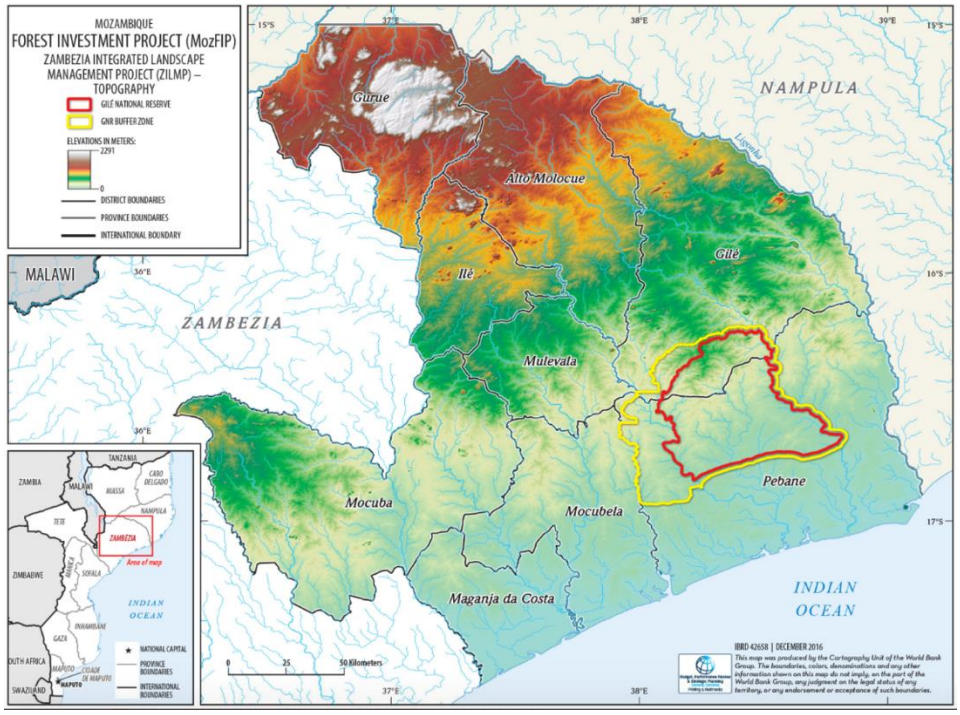
Targeted Landscapes – Districts/Provinces (IBRD 42656)



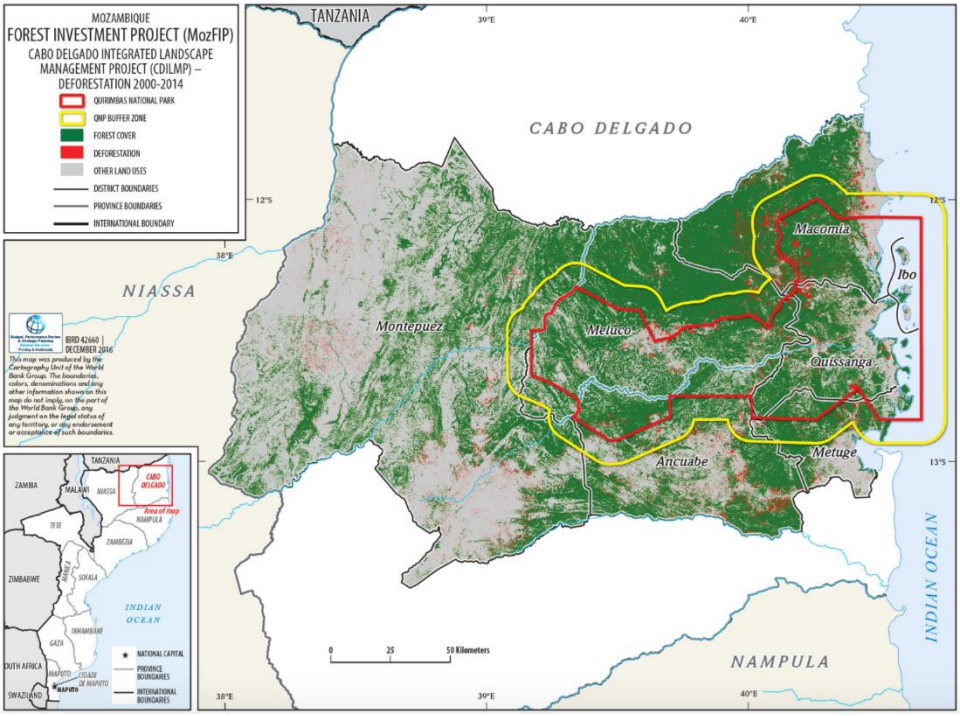
Zambezia Integrated Landscape Management Program Districts, Provinces, and Deforestation 2000-2014 (IBRD 42657)



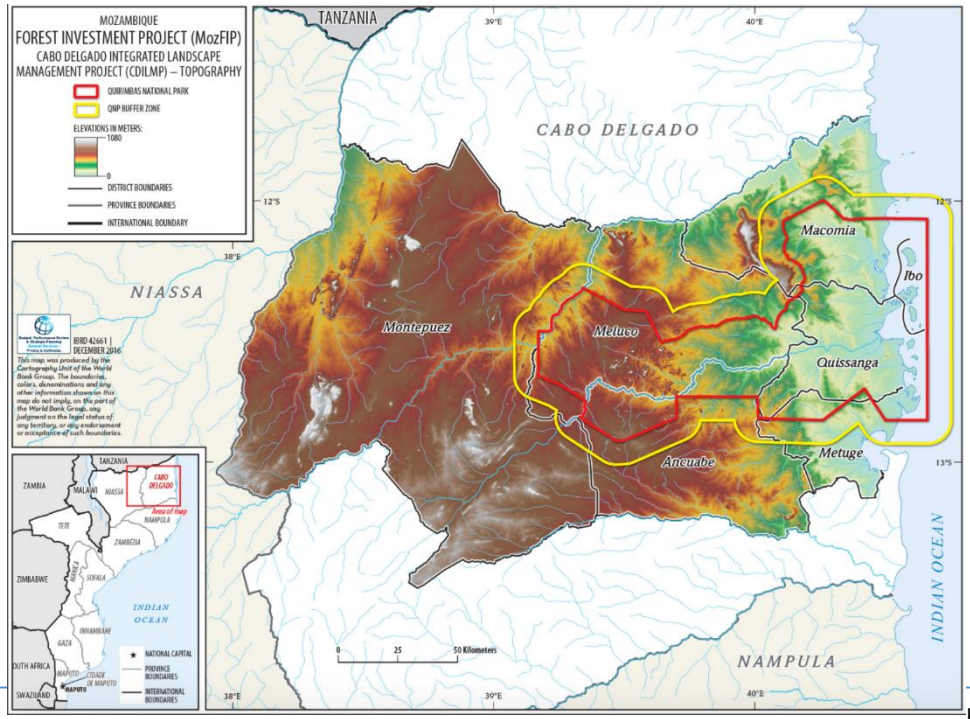
Zambezia Integrated Landscape Management Program Districts, Provinces, and Topography (IBRD 42658)



Cabo Delgado Integrated Landscape Management Program Districts, Provinces, and Deforestation 2000-2014 (IBRD 42660)



Cabo Delgado Integrated Landscape Management Program Districts, Provinces, and Topography (IBRD 42661)



ANNEX 10: GREENHOUSE GAS ACCOUNTING

COUNTRY : Mozambique
Mozambique Forest Investment Project

1. **The net carbon balance of the project was assessed, highlighting which project activities have the largest potential to reduce emissions and sequester carbon.** This allows for an understanding of how the project contributes to the country's mitigation goals stated in the INDCs to UNFCCC and highlights potential for future payments for emissions reductions from different sources (e.g., FCPF Carbon Fund).

Policy context on climate change mitigation

2. **Climate change has acquired prominence in Mozambique's political agenda in recent years.** In 2012, the National Climate Change Strategy (ENCM) 2013-2025, which is structured around three core themes: adaptation and climate risk management, mitigation and low carbon development, and cross-cutting issues, was adopted. These include institutional and legal reform for climate change, research on climate change, and training and technology transfer. The implementation of the Environmental and Social Management Framework is planned in three phases, with the first phase (2013-2015) focused on adaptation measures and poverty reduction and identifying opportunities for the development of a low-carbon economy in local communities.

3. **A range of other policies that acknowledged the close connection between climate change, poverty, and economic development preceded the ENCM.** In 2003, Mozambique submitted a national communication to the UNFCCC – the second communication is in draft – identifying seven sectors that are particularly vulnerable to climate change. In 2007, the National Adaptation Program of Action proposed immediate adaptation strategies,[54] and soon after, the National Poverty Plan 2011–2014 proposed measures to reduce disaster risk and climate change adaptation, including promotion of conservation agriculture, or a program for reforestation and reducing emissions from deforestation and forest degradation and establishing carbon stocks (REDD+). The country finalized its National REDD+ Strategy in 2016.

4. **Intended Nationally Determined Contribution to the UNFCCC**. In 2015, through its INDC submitted before the UNFCCC COP 21 meeting, Mozambique estimated its contributions to reducing mitigation at approximately 76.5 $MtCO_2eq$ from 2020 to 2030, with 23.0 $MtCO_2eq$ by 2024 and 53.4 $MtCO_2eq$ from 2025 to 2030. This should primarily be achieved in the energy (electricity production, transport, and other – residential, commercial, and institutional), land use, land-use change, forestry (REDD+), and waste sectors. Potential actions in other sectors such as agriculture and energy will be explored.[55] The implementation of any proposed reduction is conditional on the provision of financial and technological assistance and capacity building from the international community.

WB mandate and accounting methodology

[54] These focus on strengthening an early warning system, developing capacities of agricultural producers to cope with effects of climate change, reducing effects of climate change in coastal zones through dune erosion control and mangrove restoration, and improving management of water resources through updated water infrastructure and establishment of water sharing agreements.
[55] INDC of Mozambique to the UNFCC (2015).
http://www4.unfccc.int/submissions/INDC/Published%20Documents/Mozambique/1/MOZ_INDC_Final_Version.pdf

5. **In its 2012 environment strategy, the WB adopted a corporate mandate to conduct GHG emissions accounting for investment lending.** The quantification of GHG emissions is an important step in managing and ultimately reducing emissions and is becoming a common practice for many international financial institutions.

6. The WB uses the EX-ACT, developed by FAO in 2010,[56] to assess a project's net carbon balance. This is the net balance of tons of CO_2 equivalent (tCO_2-eq) GHGs that were emitted or carbon sequestered as a result of project implementation compared with a without-project scenario. EX-ACT categorizes activities in five modules: land-use change, crop production, livestock and grassland, land degradation, and inputs and investment. EX-ACT thus estimates carbon stock changes and GHG emissions per unit of land, expressed in tCO_2-eq per hectare and year.

Project activities relevant for the analysis

7. **Project area.** The project development objective is to improve forest and land management practices by local communities, the government, and the private sector. The project has two components, one at the national level and one at the landscape level. The landscape-level component will be implemented on a pilot basis in two priority landscapes: the Zambezia landscape, composed of nine districts in the Province of Zambezia, and the Cabo Delgado landscape, composed of seven districts in the province of Cabo Delgado. The targeted landscape is an area of 89,923 km^2 in the provinces of Cabo Delgado and Zambezia.

8. **Description of project area.** The project areas are in tropical, humid areas; project implementation is five years, and capitalization is 45 years; with LAC soil type. Table 1 provides an overview of project activities and related assumptions for the with- and without-project scenarios. Tier 1 coefficients are used throughout, and linear dynamic of change is assumed. It is assumed that the without-project situation is the same as the with-project scenario unless otherwise indicated.

9. **Project activities.** The project expects to contribute to reducing deforestation by 30 percent, from 122.0 percent to 85.4 percent of the project area, resulting in approximately 36,608 hectares of avoided deforestation and associated CO_2 emissions from residue burning. It is also expected to establish approximately 5,000 hectares of forest plantations in Zambezia. The project aims to introduce sustainable land management practices and agroforestry systems on approximately 3,900 hectares (assuming 27 percent spatial occupation for the perennial crops and 73 percent for annual crops). The project will buy approximately seven cars that are estimated to work 254 days per years and drive approximately 100 km every day. Car consumption is estimated to be 0.007 m^3 of gasoline per working day. Forest plantations are expected to use approximately 200 kg/ha of NPK fertilizer (two applications, the first at planting and the second two or three months later).

Table 1. Inputs to EX-ACT

EX-ACT module **Project activity**	**Initial situation**	**Without project**	**With project**
Reduced deforestation rate in tropical dry forests by 30%; with fire use	4,980,133.2 ha forested area	4,858,106.6ha Forested area;	4,894,714.3 hectares

[56] http://www.fao.org/tc/exact/ex-act-home/en/

			122,027 hectares annual cropland and residue burning	forested area; 85,419 hectares annual cropland
Forest plantation		0	0	5.000 hectares
Agroforestry systems	Perennial crops	0	0	105 hectares
	Improved[(a)] maize production	350 hectares	0	195 hectares
	Improved soya production	350 hectares	0	409,5 hectares
	Improved beans production	350 hectares	0	409,5 hectares
	Improved sesame production	350 hectares	0	409,5 hectares
Inputs & investments	Gasoline	0	0	13.34 m^3/year
	Fertilizer	0	0	200 kg/ha per year (NPK)

Results – Net Carbon Balance

10. **Results.** The project could be a net carbon sink of **-20,230,005 tCO_2-eq** over 50 years, resulting in a net balance of -404,600 tCO_2eq per year. Figure 1 and Table 2 show the effect of each activity over 50 years. Avoided deforestation constitutes a share of 65 percent of mitigated tCO_2-eq, followed by forest plantations with 28 percent and agroforestry systems with 7 percent.

Table 2. Results per activities; all GHG in tCO2eq

Activities	Gross fluxes (50 years)		Net carbon Balance	Result per year		
	Without project	With project		Without project	With project	Net carbon Balance
Avoided deforestation	43,711,707	30,598,306	-13,113,401	874,234	611,966	-262,268
Forest plantations	0	-5,733,860	-5,733,860	0	-114,677	-114,677
Agroforestry Systems	3,546,149.3	2,158,002.3	-1,388,147.3	70,922.9	43,160	-27,763
Inputs & Investments	0	5,403	5,403	0	108	108
Total	47,257,857	27,027851	**-20,230,005**	945,157	540,557	**-404,600**
Per hectare	9	5	-4			
Per hectare per year	0.2	0.1	- 0.1	0.2	0.1	- 0.1

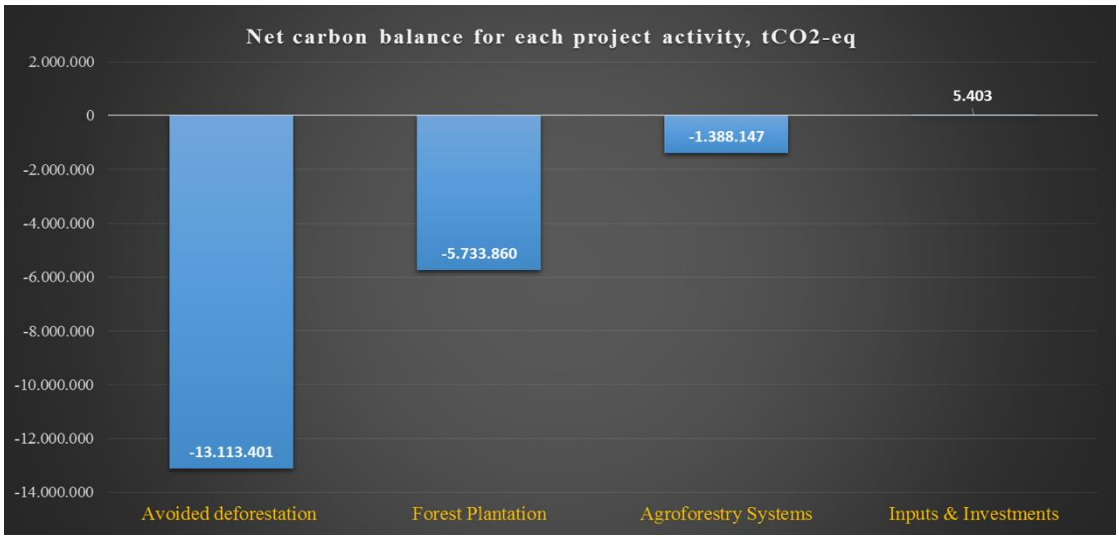


Figure 1: Net carbon balance per project activity.

11. **On a per-hectare basis, the ranking differs.** Forest plantations create a net carbon sink of -1.147 tCO_2-eq over 50 years, followed by agroforestry systems with -712 tCO_2-eq and avoided deforestation with -358.21 tCO_2-eq, although equipment such as cars and fertilizer inputs will be carbon sources, decreasing the project's overall mitigation potential (figure 2).

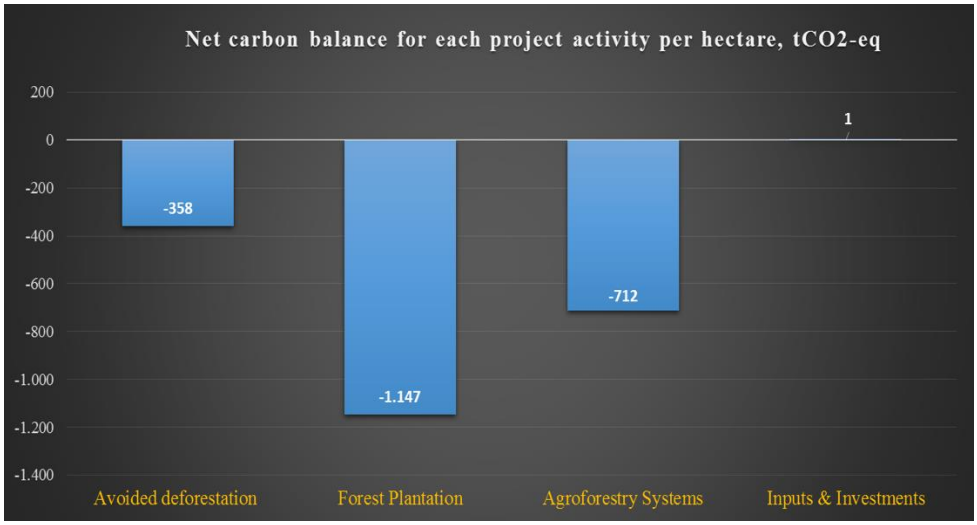


Figure 2: Net carbon balance per project activity per hectare.

12. **Sensitivity analysis.** The sensitivity analysis assesses the effect of a change in adoption rate of agroforestry systems to 10 percent, 30 percent, 60 percent, and 100 percent (from current 50 percent) and a decrease in reduction of deforestation rate to 5 percent instead of anticipated 10 percent. Changes in moisture regime due to climate change from moist to wet or dry are also assessed. The results are shown in table 3 and demonstrate that the project remains a net carbon

sink. Changes in deforestation rates and high level of adoption rates have large impacts on carbon balance. The impact of a reduced deforestation rate to 20 percent instead of 30 percent is more severe than a decrease in adoption rate of improved practices to 10 percent.

Table 3. Results of sensitivity analysis

	Results	
	Final Balance, tCO_2eq	Change (%)
Initial results	**-20.230.005**	-
Change in adoption rate of agroforestry systems		
10%	-19.991.743	+1.2%
30%	- 20.110.864	+0.6%
60%	-20.289.253	-0.3%
100%	-20.526.933	-0.13%
Change in reduction of deforestation rate		
To 20 %	-15.495.039	+23,4%
To 10 %	-10.760.582	+46.9%
Change in moisture regime:		
Dry moisture regime	-18.686.030	+7.6%
Wet moisture regime	-22.000.266	-8.8%

13. The results from the sensitivity analysis shows that, despite forest plantation and agroforestry systems having the highest carbon potential per hectare, changes in deforestation rates tend to have large impacts on the project final carbon balance (Figure 3).

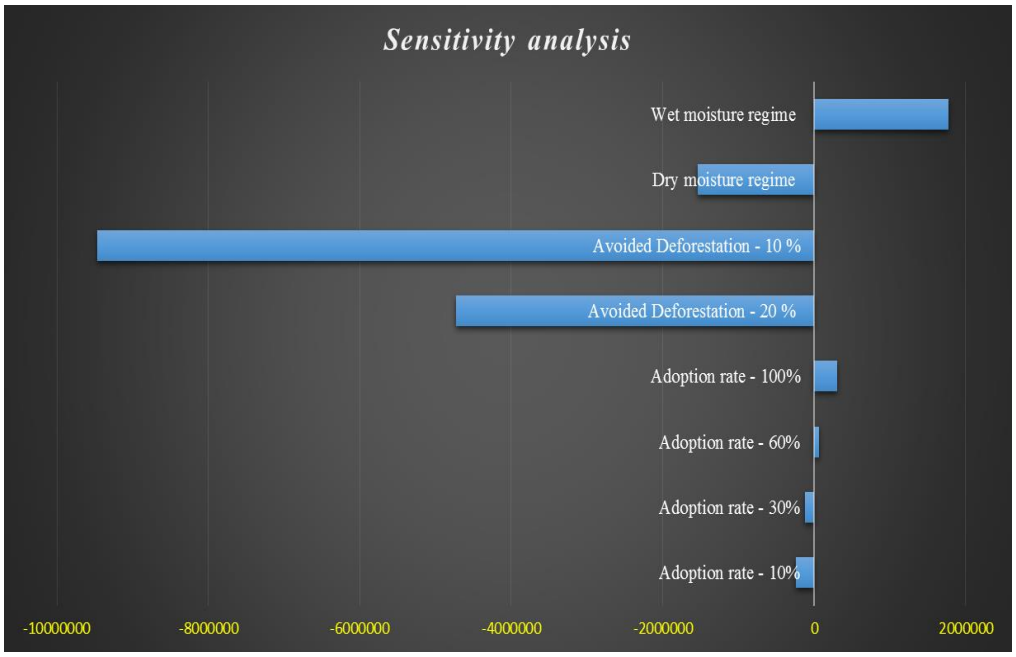


Figure 3: Sensitivity analysis

14. **Conclusion.** The ex-ante analysis shows that the project could be a sizeable net carbon sink of approximately **-20 $MtCO_2$-eq** over 50 years, which is approximately 26 percent of the mitigation suggested in the INDCs of approximately -76 $MtCO_2$-eq. Forest plantations and agroforestry systems have the highest per-hectare mitigation potential. These results suggest that investing in concrete ground activities can contribute to carbon balance mitigation thorough carbon stock enhancement, although as the sensitivity analysis shows, changes in deforestation rates have the highest impacts on the project's net carbon balance.