

Readiness Preparation Proposal (R-PP)

for Country: Mozambique

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***For use by countries for submitting a
Readiness Preparation Proposal (R-PP)***

Forest Carbon Partnership Facility (FCPF)

United Nations REDD Programme (UN-REDD)

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R-PP Development Team

Institutions	Name	Position and/or Role
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	Ana Chichava	Vice-Minister, Chair of CONDES Technical Council
	Mauricio Xerinda	Permanent Secretary, Chair of the Technical Council of MICOA
MICOA technical	Anselmina Liphola	Director DNGA – also participated in data collection in the South, facilitated dialogue with the Technical and Consultative Councils of MICOA as well as with CONDES
	Paula Panguene	Deputy Director DNGA Chair, background information on REDD+ and process Coordination of REDD process
	Telma Manjate	Director of International Cooperation and Host of UNFCCC, facilitates liaison with

		FCPF and other institutions supporting the REDD+ process
	Francisco Sambo	Focal point and technical liaison Logistical support to the process, including contacts with provincial institutions
	Ana Paula Francisco	Technical Staff Facilitated consultation at local (community level) and provincial and data collection
	Carla Pereira	
	Pedro Xavier	
	Dinis Macie	
MINAG	Dinis Lissave	National Director (DNTF)
	Mandrate Oreste Nakala	Deputy National Director (DNTF) – ensure high level communication within the Ministry and engagement of all agriculture subsectors
	Alima Issufo-Taquidir	Head of the Department of Forestry, co-leader of the REDD+ process with MICOA
	Darlindo Pechisso	Technical staff- Forestry Department
	Fatima Kanji	Head of the Community Based natural Resources Management
	Joaquim Macuacua	Head of Department of Natural Resources Assessment
	Halima Niquice	Technical Staff on Lands - Department of Planning
	Renato Timane	Head of Law Enforcement
	Julião Cuambe	Technical Staff of Law Enforcement
	Osvaldo Manso	Coordinator, National Forest Program
		Technical Staff at the Department of Natural Resources Assessment; Data collection on drivers of deforestation and analysis of current information management systems in provinces affected by deforestation and degradation of forests – Maputo, Gaza and Zambezia
	Pachis Mugas	
	Castelo Banze	
	Carla Cuambe	Now with FAO-Maputo, former head of Department of Natural Resources Assessment; significant input on data needs, availability and MRV, data collection in Tete and Sofala
FAS	Virgilio Viana	Director
	Thais Megid Pinto	Technical staff of Bolsa Floresta Program
	Luiza Lima	Technical staff of Bolsa Floresta Program
IIED	Duncan Macqueen	Team Leader, Forests – Coordination of South-South REDD+
	Dr. Isilda Nhantumbo	Senior Researcher on Forests and Climate Change, coordinate the process of

		consultations and technical inputs to the R-PP
UEM – Forestry, Agriculture, Economics and Rural Engineering	Dr. Almeida Siteo	Lead the UEM input as well as focusing on Reference Level
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	Technical support – subnational studies	
	Dr. Romana Rombe (Forestry)	Preliminary analysis of drivers of deforestation and degradation, actors and current interventions, lessons, tradeoffs between land uses and REDD+ delivery models
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CTV	Alda Salomão	Director, Environmental Lawyer; consultations and stakeholders participation
	Samantha Remane	Lawyer, organization of consultations
	Berta Rafael	Facilitation of consultations at community level
	Lino Manuel	Environmental Journalist
INDUFOR	Marisa Camargo	Consultant, Forests and Climate Change, Private Sector engagement, Finish Program
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Summary of the R-PP

Dates of R-PP preparation (beginning to submission):	February 2010 – August 2011
Expected duration of R-PP implementation (month/year to month/year):	March 2012 to March 2014
Total budget estimate:	US\$ 6.4 million USD (US\$3 million for pilot activities)
Anticipated sources of funding:	from FCPF: 3.4 from UN-REDD: National government contribution: other source: other source:0.6 million USD
Expected government signer of R-PP grant request (name, title, affiliation):	Marília António Telma Manjate National Director, UNFCCC and GEF focal point International Cooperation Directorate, Ministry for Coordination of Environmental Affairs
Expected key results from the R-PP implementation process:	Outcome 1) Institutional arrangements at national and sub-national level for delivery of REDD+ established and functional. Outcome 2) Carbon rights and benefit sharing mechanisms acknowledged and legal instruments approved. Outcome 3) Delivery models that can address drivers of deforestation identified and costs associated to their execution assessed. Outcome 4) Reference level viable scenarios and MRV systems for emissions, safeguards and co-benefits designed; capacity developed; costs and frequency of assessment defined.

Executive Summary

Mozambique is endowed with forest, woodland resources and other vegetation covering 70% of its territory. The annual loss of these resources amounts to 0.58% or 219,000 ha according to the inventory report of 2007. This represents more than double the deforestation reported in 1994 (0.21%).

The sources of forest loss and degradation include subsistence and commercial agriculture due to unsustainable land use practices including use of fire in land clearing and hunting, increasing demand for biomass energy in the urban areas, illegal harvesting of timber and non implementation of management plans, mining associated with land clearing for settlement (in particular artisan miners) and infrastructure development including roads, railways and expansion of urban areas. Underlying causes include limited access to high productivity technologies by the majority smallholders or means to implement them including sparse extension network, poor governance and weak enforcement of land, forests and environmental legislation, demand for food and wood products in the domestic and international markets and lack of employment opportunities in the rural areas.

Following submission and approval of R-PIN to FCPF, the government of Norway has been supporting South-South cooperation between Mozambique and Brazil with the aim of creating readiness conditions to implement REDD+ in the country. The first national consultation in 2009 led to the establishment of the REDD+ working group co-led by the Ministry for Coordination of Environmental Affairs (MICOA) and the Ministry of Agriculture (MINAG) with Foundation Sustainable Amazonia (FAS) sharing its experience.

This R-PP is product of consultations undertaken at national, provincial level where forests are under pressure for a variety of reasons: conversion of native forests and woodlands for large scale plantations in Niassa; high competition between economic activities such as forest harvesting, commercial agriculture including biofuels, mining, logging and forest plantations in Nampula; mining and livestock in Tete; poor forest governance resulting in intensive and illegal logging in Zambézia; supply of biomass energy to Maputo city affecting forest areas beyond Maputo province, in particular Gaza. Representatives of all districts were invited to the provincial level consultations. In Nampula all districts were represented. Equally, regional level consultations brought together representatives from all provinces (North – Cabo Delgado, Niassa and Nampula; Centre – Zambézia, Manica Tete and Sofala; and South – Inhambane, Gaza and Maputo). The process was undertaken between February 2010 and July 2011 and 838 registered participants representing government (national, provincial, district and local authorities), NGOs, academia, private sector (timber concessionaires and simple license operators, plantations and agriculture), community leaders, women's organizations, forest guards, religious organizations, traditional healers, farmers, agriculture associations, charcoal producers, teachers, students, development partners and others.

Consultations included dissemination of information on REDD+, discussion on reference level scenarios and MRV system, legal and institutional opportunities and gaps, identification of drivers of deforestation and degradation in the covered provinces, actions to address them, and identification of potential pilot areas. Stakeholders included government, non-government organizations, academia, private sector and communities.

A multidisciplinary team including staff from the Eduardo Mondlane University, MINAG, MICOA and provincial staff affiliated to these ministries conducted studies on land use and drivers of deforestation and forest degradation as well as experiences in addressing these drivers in Niassa, Nampula, Tete, Sofala, Gaza, Maputo and Zambézia (focusing on land information management and spatial representation of the drivers). Information gathering included interviews and discussions with land users such as timber operators, small and

medium scale farmers, charcoal producers and traders as well as community, district and provincial leaders.

The R-PP highlights the need to establish a Technical REDD+ Unit (UT-REDD+) at central level to ensure sector coordination in policy development as well as facilitating implementation of REDD+ at sub-national level. A similar structure is recommended for the latter, but further analysis of capacity and level (regional or provincial) of establishing such structure will be discussed during implementation of this readiness plan. The Technical Council of the National Council for Sustainable Development (CONDES) which comprises national directors, representatives of academia, private sector, NGOs and prominent individuals, is the National Council for REDD+. This will provide strategic direction and ensure political buy-in of key cross-sector interventions to reduce emissions from current land use practices.

The policy and legal instruments contain important provisions such as devolution of resources to local communities and participatory decisions in allocation of the resources to investments (private and public) and benefit sharing mechanisms. However, rights to non tangible environmental services such as carbon are not explicitly defined. Consultations indicated that, in order to protect communities and provide incentives for changing land use practices, carbon rights **should be held by the communities as the Constitution of Mozambique, Land Policy and Law acknowledges customary land rights irrespective of whether these rights are formally registered or not.**

REDD+ delivery models, options and interventions are outlined in this document, though analysis of their viability needs to be conducted including determination of opportunity costs, transaction and implementation costs.

While forest inventories have been conducted regularly in the country in intervals of about 10 years, this has focused on determining annual allowable cut for commercial timber and assessment of biomass has been limited. Therefore, establishing reference scenarios and MRV systems will require some work at sub-national level to validate national information and conversion of volume to biomass and thereafter to carbon stocks. In addition, mapping land uses as well as establishing spatial, social and economic impacts on emissions will facilitate tracking changes and performance over time.

Social and Environment Strategic Assessment (SESA) and subsequent design of Environmental and Social Management Framework (ESMF) will be conducted to minimize and mitigate negative impacts that might result from implementation of REDD+. Carbon rights can potentially affect community access to land resources for their livelihoods, hence exacerbating poverty. Similarly enhancing carbon stocks through large scale plantations replacing natural forests reduces biodiversity particularly due to fuzzy boundary between forest and non-forest definitions, promote large scale land acquisition causing conflicts or affecting communities. These issues have not been discussed so far during consultations.

The duration of this R-PP is two years from March 2012 to March 2014 and the readiness preparation will require at least US\$ 3.5 million with the following breakdown:

- Component 1 – institutional arrangements for REDD+ implementation – US\$ 800,000 to establish capacity at national and sub-national level.
- Component 2 – Preparation of the REDD+ Strategy – US\$ 1,000,000 to include land use mapping, studies on options and viability, development of SESA and ESMF.
- Component 3 – Reference levels – US\$ 500,000 to include field work to develop national parameters for determining carbon stocks and scenarios of reducing emissions.

- Component 4 – Measurement, Reporting and Verification system – USD\$ 600,000 to monitor emissions (using parameters defined in C3) based on Tier 2 and 3 IPCC, development of methodologies as well as socio-economic and environmental benefits; capacity needs assessment at national and sub-national levels, institutional arrangements for implementation including community level. This component will build on parameters defined in component 3.
- Component 5 – operations and management of R-PP (consolidated plan and budget) – US\$ 300,000 including establishment of two-way accountability systems at national and sub-national levels.
- Component 6 – Monitoring and Valuation – US\$ 100,000 design of national and sub-national level monitoring systems.

This document (as informal submission) does not include as thus far detailed budget per component. The Working Group seeks feedback on the technical soundness while further consulting on budget for the different components.

Furthermore, additional US\$ 3-4 million for piloting is critical in order to establish tested models and systems for REDD+ delivery from 2014 onwards. Pilot areas have been identified for REDD+ implementation to address key land use challenges in Manica (pressure on forest reserves due to commercial agriculture), Sofala (rehabilitation and conservation of Gorongoza mountain ecosystem), Zambézia (assessing degradation in a context of weak forest governance and information management systems), Niassa (impact of large scale plantations on co-benefits of REDD+, carbon rights), Nampula (commercial agriculture and energy demand) and Gaza (biomass energy supply). Stakeholders (including policy makers and national level) stressed that consultations and studies are important. However, building on existing knowledge and moving towards implementation is equally fundamental to identify intricacies of achieving the goals of REDD+ and address associated challenges.

Acronyms the country uses in the R-PP

ABIODES	Association for Biological Diversity and Sustainable Development
AgriFuturo	Agribusiness project (9 commodities) funded by USAID
AMOMA	Mozambican Association of Timber Operators
BAU	Business as usual
CBNRM	Community Based Natural Resources Management
CDS-RN	Centre for Sustainable Development – Natural Resources
CARE	NGO
CENECARTA	National Centre of Cartography and Remote Sensing
CIP	Centre for Public Integrity
CLUSA	Cooperative League of United States of America
COGEP	Participatory Natural Resources Management Council
CTA	Confederation of Economic Associations
CTV	Centro Terra Viva, Environmental Research and Advocacy NGO
DAPI	Provincial Directorate of Agriculture of Inhambane
DFID	Department for International Development
DIPREME	Provincial Directorate for Mineral Resources and Energy
DNAIA	National Directorate for Environmental Impact Assessment
DNCI	National Directorate for International Cooperation
DNE	National Directorate of Roads
DNEA	National Directorate of Agrarian Economy
DNER	National Directorate of Rural Extension
DNENR	National Directorate of New and Renewable Energy
DNGA	National Directorate of Environmental Management
DNM	National Directorate of Mines
DNRI	Department of Natural Resources Inventory
DNPDR	National Directorate for Promotion of Rural Development
DNISA	National Directorate of Agrarian Services
DNTF	National Directorate of Lands and Forests
DPA	Provincial Directorate of Agriculture
DPAG	Provincial Directorate of Agriculture of Gaza
DPANp	Provincial Directorate of Agriculture of Nampula
DPAS	Provincial Directorate of Agriculture of Sofala
DPAT	Provincial Directorate of Agriculture of Tete
DPAZ	Provincial Directorate of Agriculture of Zambézia
DPCA	Provincial Directorate for Environmental Coordination
DPCACB	Provincial Directorate for Environmental Coordination of Cabo Delgado
DPCAG	Provincial Directorate for Environmental Coordination of Gaza
DPCAM	Provincial Directorate for Environmental Coordination of Manica
DPCAN	Provincial Directorate for Environmental Coordination of Niassa
DPCANp	Provincial Directorate for Environmental Coordination of Nampula
DPCAS	Provincial Directorate for Environmental Coordination of Sofala
DPCAT	Provincial Directorate for Environmental Coordination of Tete
DPCAZ	Provincial Directorate for Environmental Coordination of Zambézia
EDM	Mozambique Electricity Company
Envirotrade	NGO implementing Plan Vivo initiative in Mozambique
ESMF	Environmental and Social Management Framework
EU	European Union
FAEF	Faculty of Agronomy and Forestry Engineering
FAO	Food and Agriculture Organization
FEMA	Private Sector Forum for Environmental Management
FDC	Forum for Community Development

FONGZA	Zambézia NGO Forum
GAPI	Microfinance company
IIAM	Mozambique Institute for Agrarian Research
IESE	Institute for Social and Economic Studies
ICS	Social Communication Institute
IIED	International Institute for Environment and Development
INDE	National Institute for Development of Education
INE	National Bureau of Statistics
IPEME	Institute of Small and Medium Enterprises
ISPU	Polytechnic Institute
IUCN	International Union for Conservation of Nature
JICA	Japan International Development Agency
LAM	Mozambique Airlines
LOLE	Law of Local State Organs
LUPA	Local NGO
MAE	Ministry of State Administration
MCA	Millennium Challenge Account
MEnergia	Ministry of Energy
MF	Ministry of Finance
MIC	Ministry of Industry and Commerce
MICOA	Ministry for Coordination of Environmental Affairs
MINEC	Ministry of Education and Culture
MIREM	Ministry of Mineral Resources
MISAU	Ministry of Health
MITUR	Ministry of Tourism
MOPH	Ministry of Public Works and Housing
MP	Ministry of Fisheries
MPD	Ministry of Planning and Development
MRV	Measurement, Reporting and Verification System
MST	Ministry of Science and Technology
MTC	Ministry of Transport and Communications
NAPA	National Action Plan for Adaptation
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Government Organization
ORAM	Local NGO - Organização de Ajuda Mútua
OXFAM	NGO
PEDSA	Strategic Plan for Sustainable Development of Agriculture
PES	Payment for Ecosystems Services
REDD	Reducing Emissions from Avoided Deforestation and Forest Degradation
REDEZA	Network of Development Associations of Zambézia
RL/REL	Reference Level/ Reference Emission Level
RM	Mozambique Radio
ROADS	Network of Organizations and Associations for Sustainable Development
SASOL	South African Gas Company
SDAE	District Services for Economic Activities
SDPI	District Services for Planning and Infrastructure
SESA	Strategic Environmental and Social Assessment. SESA is defined as “a range of analytical and participatory approaches that aim to integrate environmental and social considerations into policies, plans and programs (PPPs) and evaluate the inter linkages with economic, political, and institutional considerations” SESA can be described as a family of approaches which use a variety of tools, rather than a single, fixed, prescriptive approach.
SNJ	National Syndicate of Journalists
STV	Soico Television
TIM	Independent Television of Mozambique
ToR	Terms of Reference

TVM	Mozambique Television
UCM	Catholic University
UEM	Eduardo Mondlane University
UNAC	National Union of Peasants
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UN-REDD	UN-REDD Programme
UP	Pedagogic University
UTRESP	Technical Unit for Public Sector Reform
WG	Working Group
WWF	Worldwide Fund for Nature

Component 1: Organize and Consult

1a. National Readiness Management Arrangements

[Please include each component's standard box like this one in your submission]

**Standard 1a the R-PP text needs to meet for this component:
National readiness management arrangements**

The cross-cutting nature of the design and workings of the national readiness management arrangements on REDD, in terms of including relevant stakeholders and key government agencies in addition to the forestry department, commitment of other sectors in planning and implementation of REDD+ readiness. Capacity building activities are included in the work plan for each component where significant external technical expertise has been used in the R-PP development process.

The genesis of Mozambique's REDD process

Mozambique is one of the 37 countries selected to benefit from the Forest Carbon Partnership Facility (FCPF) managed by the World Bank to access funding to develop and implement strategies aiming to reduce emissions from deforestation and forest degradation (REDD).

In December 2008 the Government of Mozambique with the funding from the Norwegian Embassy in Maputo and technical support from INDUFOR initiated the process of preparing reduced emissions from deforestation and forest degradation project idea note (REDD-PIN) and the note was submitted to the FCPF in March, 2008. Following approval of the R-PIN expectations grew both on the side of the Mozambique Government and on the FCPF, that progress towards a National REDD Strategy would start in earnest through drafting of a REDD Preparation Proposal (R-PP).

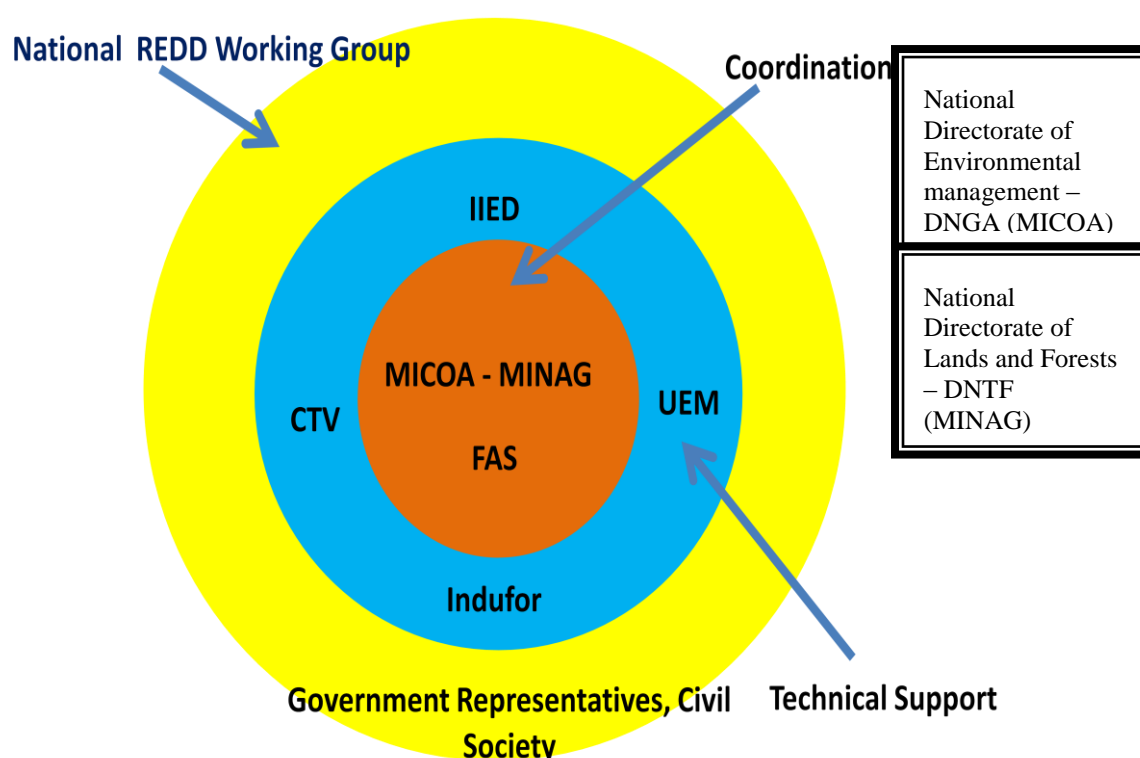
The Mozambican Ministry for Coordination of Environmental Affairs (MICOA) and FAS signed a Memorandum of Understanding (MoU) with the intention to adapt the Bolsa Floresta Program and REDD project in Juma to the context of Mozambique. The Government of Norway through the Embassy in Maputo provided funding to pursue this South-South collaboration.

Creation of the REDD Working Group in Mozambique in the context of South-South Collaboration

A first national workshop was held on 28-29 August 2009 at Pequenos Libombos, in Maputo to discuss the project and share the latest developments in REDD, both international and national. The main outcome of this meeting was to take the process forward through a National REDD Working Group comprising of MICOA, represented by the National Directorate of Environmental Management (DNGA), MINAG, represented by the National Directorate of Lands and Forests (DNFT), (Fundação Amazônia Sustentável) FAS, the International Institute for Environment and Development (IIED), the Eduardo Mondlane University (Faculty of Agronomy and Forestry) and the national NGO and Centro Terra Viva (CTV) (Figure 1).

The intent was to bring together stakeholders from government, academia, NGOs and, private sector. Government agencies and Non-Government Organizations are an integral part of the working group to facilitate cross-sectoral coordination on REDD+.

Figure 1 National REDD Working Group



The working group aimed to integrate the following government institutions: Ministry of Tourism (MITUR), Ministry of State Administration (MAE), Ministry of Energy (MEnergia), Ministry of Women and Social Affairs (MMAS), Ministry of Planning and Development (MPD), Ministry of Finance (MF), Ministry of Mining (MIREM), Ministry of Industry and Commerce (MIC). Civil Society Organizations including Foundation for Community Development (FDC), Organização de Ajuda Mútua (ORAM), União Nacional dos Camponeses (UNAC), Associação Mocambiçana dos Madeiros (AMOMA), International Union for Conservation of Nature (IUCN), Worldwide Fund for Nature (WWF), Envirotrade (Plan Vivo initiative), CTA/FAMA (private sector association for environment and economic activities). However, most of the institutions have not been regular participants in the working group as such, although they provided input into the REDD+ process during the consultations. Apparently some perceive REDD+ as a forest and environmental concern, therefore the low priority. Systematic engagement of these institutions will require dissemination of REDD+ and clear explanation of the sector connections.

Within MINAG, despite the key role played by the Department of Forestry of DNTF, there is need to strengthen representation of the: Department of Natural Resources Inventory responsible for collection, compilation and management of information on national resources; National Centre of Cartography and Remote Sensing (CENECARTA) which produces land cover and land use maps; and Department of Lands responsible for allocation of land to all uses and users, including the private sector and the issuing of certificates of land use rights to local communities. Their participation will be critical to ensure that issues related to land use planning, allocation and information management systems are adequately addressed.

Table 1 Roles of the members of the core working group

Institution	Role
MICOA	<ul style="list-style-type: none"> Organize and chair meetings of the working group and consultation workshops; contribute to components 1, 5 and 6 Facilitate consultation and decision making processes within government across the sectors Liaise with relevant stakeholders at provincial and district levels to provide inputs into the process (consultation and training) Organize learning and exchange opportunities for technical staff from government and non-government organization Coordinate financial support by Norway and DANIDA for climate change mitigation initiatives including FCPF
MINAG	<ul style="list-style-type: none"> Co-lead the process with MICOA and ensure internal consultations in the Ministry of Agriculture at National, Provincial and District levels Provide technical inputs into for example, issues related to reference level and MRV as well as overall drivers of forest conversion, contribute mainly to components 3,4, 5 and 6 MINAG has a wide presence at national, provincial, district and local level (e.g. law enforcement officers, extension workers) as such liaison with all these levels was critical for consultations and other activities undertaken in the process of RPP design. Coordinate of financial support from donors such as Finland, EU, Japan and MCA on lands and forests, and liaison with PROAGRI donor group
FAS	<ul style="list-style-type: none"> Share experience from Brazil with Mozambique government, contribute mainly to component 2 Provide technical inputs into the REDD process including governance and pilot initiatives Support training and planning implementation of REDD+ in one of the pilot initiatives
IIED	<ul style="list-style-type: none"> Produce background paper on Concept, Scope and Scale of REDD in Mozambique; analysis of policy, legal and institutions and REDD governance; share information on developments at global level and exchange opportunities Coordinate technical inputs from all other partners in the South-South partnership Conduct the content and process planning of the consultation process including methodological aspects Resource at consultation meetings, presentation to relevant bodies within government Coordinate data gathering and analysis of drivers of deforestation in the country (component 2 in particular oversee the design of other components) writing document including briefing notes, manage financial resources, manage relationships within the working group
UEM	<ul style="list-style-type: none"> Produce background papers on reference levels and monitoring, verification and reporting (using secondary data to define possible scenarios for discussion during consultation and analysis of capacity at provincial level), components 3 and 4 Contribute to the planning and definition of methodology for consultations Participate in the consultation workshops, delivering relevant content and providing insights into the overall climate change Design and administer training on REDD+ in the pilot areas; technical input to pilot projects Writing relevant sections of the RPP, briefing notes Contribute to environmental and social assessment
CTV	<ul style="list-style-type: none"> Design and organize consultation process and media outreach Design long term consultation plan on REDD+ in the country, contribute to component 1 Ensure participation of key stakeholders in particular NGOs and private sector in the REDD process Develop briefing note on land resources tenure and carbon rights for consultation and development of appropriate legislation Contribute to assessment of social and environmental impacts of REDD+ and safeguards
INDUFOR	<ul style="list-style-type: none"> Develop R-PIN and support alignment of the REDD+ process with the National Forestry Programme Liaison with private sector particularly large scale industrial plantations in Mozambique

Greater involvement of the Mozambique Institute for Agrarian Research (IIAM) and Coordinating Group for International Agriculture Research (CGIAR) institutions present in the country is fundamental as research is a key component of the medium term implementation of REDD+, particularly identification and dissemination of alternative technologies for increasing land productivity.

As the process of designing REDD+ evolves, more focus will be given to strengthening representation and participation of sectors that have not been either actively or regularly taking part in the working group. The Ministry of Tourism (MITUR) through the National Directorate of Conservation Areas manages flora, fauna and marine biodiversity areas comprising of 6 National Parks, 5 Game Reserves and 12 Hunting Areas covering about 16% of the country. Some of these areas are within the Transfrontier Conservation Areas ensuring ecosystems integrity beyond national boundaries. Given its important role in conservation of biodiversity and carbon stocks in these areas, MITUR should join MICOA and MINAG to strengthen coordination at national and provincial levels as well harmonization of policies for REDD+ implementation.

The Ministry of State Administration (MAE) houses the National Directorate for Promotion of Rural Development (DNPDR) and the National Institute for Disaster Management (INGC). The latter has been playing a key role on climate change adaptation as well as investing in livelihood development initiatives in 28 drought stricken districts in the country. On the other hand, DNPDR plays an important role in decentralized planning (district level) and allocation of financial resources to support economic development at that level. Participation of these institutions will allow alignment of the different interventions and rationalize use of *resources*.

Leadership, decision making and ownership

MICOA, represented by the National Directorate of Environmental Management (DNGA) and MINAG through its National Directorate of Lands and Forests (DNTF) with support from FAS coordinated the process and ensured ownership by the national institutions. The central role of this coalition is the liaison between technical information on options and policy decisions at ministerial level and across sectors. The conveners (MICOA and MINAG) present the agenda for the meetings with input from members. The working group discusses and deliberates on technical, policy, institutional aspects of the readiness process as well as sharing information regarding REDD+ at international level.

The working group meets regularly since its establishment. Seven meetings of the working groups have been held until June 2011 including use of video or teleconference to ensure participation of FAS (Brazil), INDUFOR (Finland) and IIED (UK). Meetings were frequent during the consultation process in 2010 as the WG needed to discuss technical, methodological and logistical issues.

The timetable flexibility has allowed that, as often as possible, the WG could meet, but there were also instances where meetings did not take place due to unavailability of the convener or conflicting agendas of the remaining members. Therefore moving forward, regular bimonthly meetings should be held especially during the REDD preparation phase and this can be reviewed later, as the process becomes more robust and institutionalized.

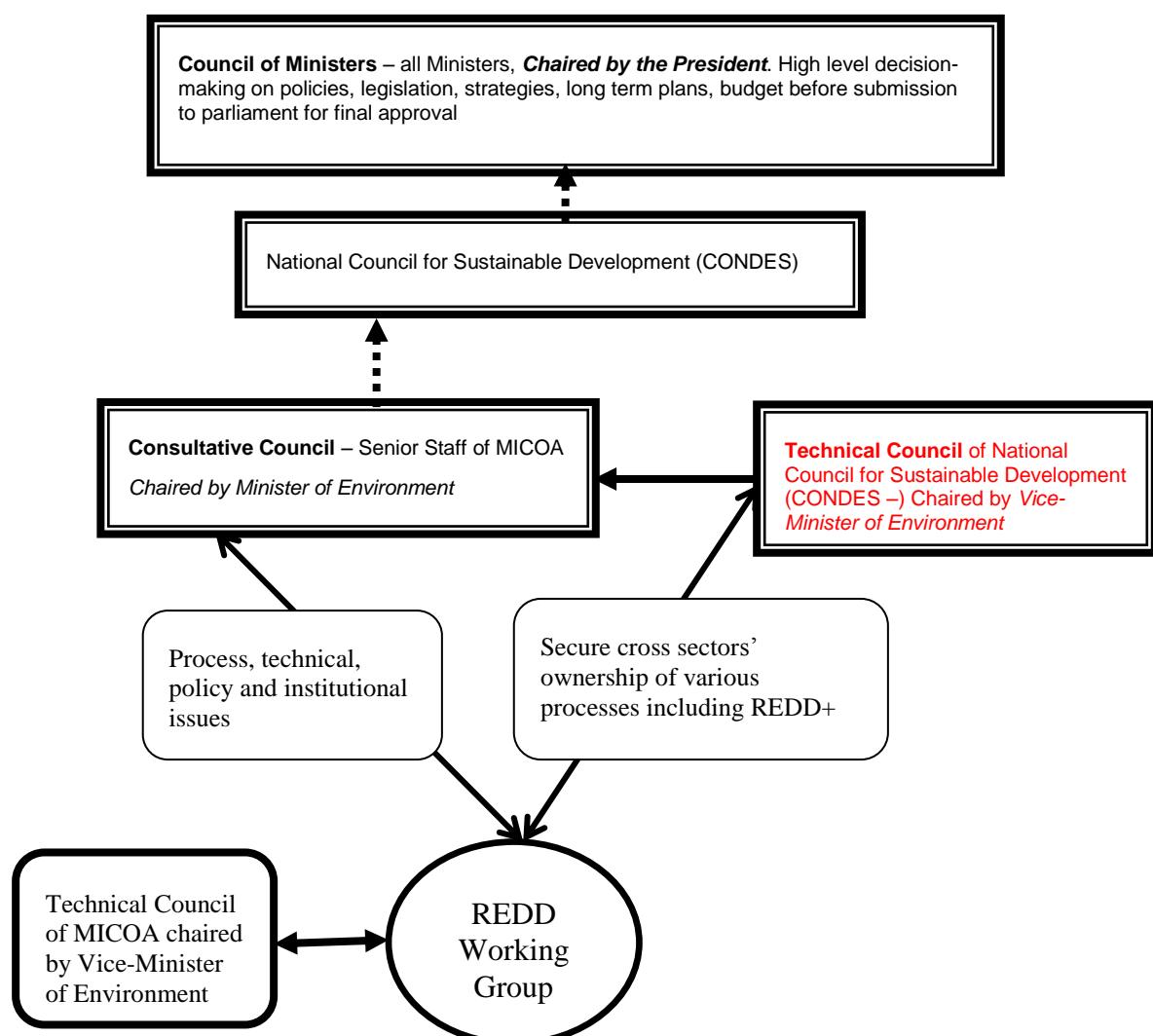
There is also regular electronic communication to share technical information relevant to the process and to make decisions such as informing progress to Donors in February 2011, or agreeing on the content of the R-PP request note to FCPF, consultation schedule and content.

The debate has been conducted to find consensus within the group. To ensure leadership support in assessing the viability of suggestions, members of the WG channel relevant issues or recommendations needing high level decision or endorsement to the Minister of Environment (to the Vice-Minister or the Permanent Secretary in the absence of the former). Technical and Consultative Councils of MICOA have also provided valuable inputs into the process executed by this group. **Figure 2 illustrates articulation in decision making and communication channels.**

The Working Group conducted consultations plans and reported on the outcomes and decisions made at various stages of the process to the Consultative Council of MICOA, chaired by the Minister, the Technical Council of MICOA, and Technical Council of the multi-sector representation of National Council for Sustainable Development (CONDES), represented by the National Directors.

The Minister of Environment is responsible for communicating with cabinet regarding progress of the R-PP. There are two levels of communication on REDD+ which includes CONDES at Minister's level chaired by the Prime Minister (for composition see section on cross-sector coordination) and, the Council of Ministers (all Ministers and Vice-Ministers) chaired by the President (head of State). This is the apex body of policy and decision making by the government that will approve the REDD+ strategy developed during the readiness process and eventually submit it to parliament.

Figure 2 Articulation between the Working Group and policy making structures



The process has clearly benefitted from strong ownership at high level at MICOA. However, ownership within the Ministry of Agriculture is a challenge to effective and successful implementation of REDD+. The Ministry of Agriculture is responsible for the country's forest resources, allocating 84% of land to various uses and houses main drivers of conversion of forests, including commercial and subsistence agriculture, biofuels, livestock rearing, forest for energy, timber and others. This institution is equally responsible for managing research, extension services and law enforcement particularly of land, forests and wildlife.

Equally, full and proactive involvement of the Minister, Vice-Minister and Permanent Secretary is necessary to bring National Directorates of Agriculture Services (DNSA), Rural Extension (DNER), Agrarian Economics (DNEA), Mozambique Institute of Agrarian Research (IIAM), Food Security (SETSAN) and Provincial Directorates to the REDD+ readiness process. Furthermore, such awareness is critical to aligning the REDD+ Strategy that will emanate as part of R-PP with the recently approved Plan for Sustainable Development of Agriculture (PEDSA 2011-2019). **Therefore, coordination of decision making and policies and long term development of MINAG are critical to Mozambique's performance as far as reducing emissions from deforestation and degradation.**

While the upwards accountability has been strong in communicating results of consultations, the communication downwards (by the working group and later the UT-REDD+) should be strengthened as capacity and ownership at provincial level develops.

Technical input

The International Institute for Environment and Development (IIED), as part of its effort on Growing Forest Partnerships (GFP) within Mozambique facilitated the technical input and administered Norwegian funding. The Eduardo Mondlane University (Faculty of Agronomy and Forestry) also provided technical support relative to quantitative analysis of deforestation and degradation to develop reference level for reducing emissions, as well as establishing a system for measuring, reporting and verifying performance. CTV (national NGO) contributed to the design of a participatory consultation process, analysis of legal implications of REDD and outreach. INDUFOR supported the alignment of REDD+ with the National Forest Programme (NFP) as part of the technical advice to MINAG. Expertise has also been sought within government institutions at provincial and district levels as required during the process of designing the readiness plan.

A core group of experts conducted the initial research and consultation process throughout the country. The process also aimed at identifying provincial and district capacities to form relevant working groups or decision bodies at that level. However, this will be further analyzed during implementation of the REDD+ readiness plan.

Actions undertaken by the working group

- developed ROAD map for preparation of the R-PP including alignment of the structure of the national action plan with R-PP format (V.4 and later adjusted to V5);
- drafted a consultation plan and produced background papers;
- organized consultation workshops at provincial, regional, national and at local levels, particularly in the REDD+ pilot areas identified through the consultation process;
- met with government agencies and other actors to explain the process and need to engage;

- communicated via internet, printed policy brief for distribution to stakeholders, use of printed media as well as TV and Radio to inform about the process and outcomes.
- produced a documentary on drivers of deforestation in Nampula and Maputo - 'when a tree falls' - aiming to share (snapshot) internationally the challenges that REDD+ needs to address.

Cross sector coordination – the context of working group operation

Mozambique is implementing a decentralization policy since the mid 1990's and the government has strived to create multi-sector and multi-stakeholder institutions to guide decision-making. In 2007 the government approved the Law on Local Government Organs that spells out the composition and the mandate of institutions at different levels of government and governance. Furthermore, the Land Law of 1997 and the Forestry and Wildlife Law of 1997, establish the creation of community management committees to ensure local participation in decision-making about the use of resources as well as being an interlocutor within communities to seek improvement on land use practices, livelihoods and benefit sharing mechanisms.

The REDD working group's reporting as well as overall implementation of REDD needs to be integral part of these structure to minimize the transaction costs as well as bring better alignment within national development plans. This ensures institutionalization of the process into existing structures.

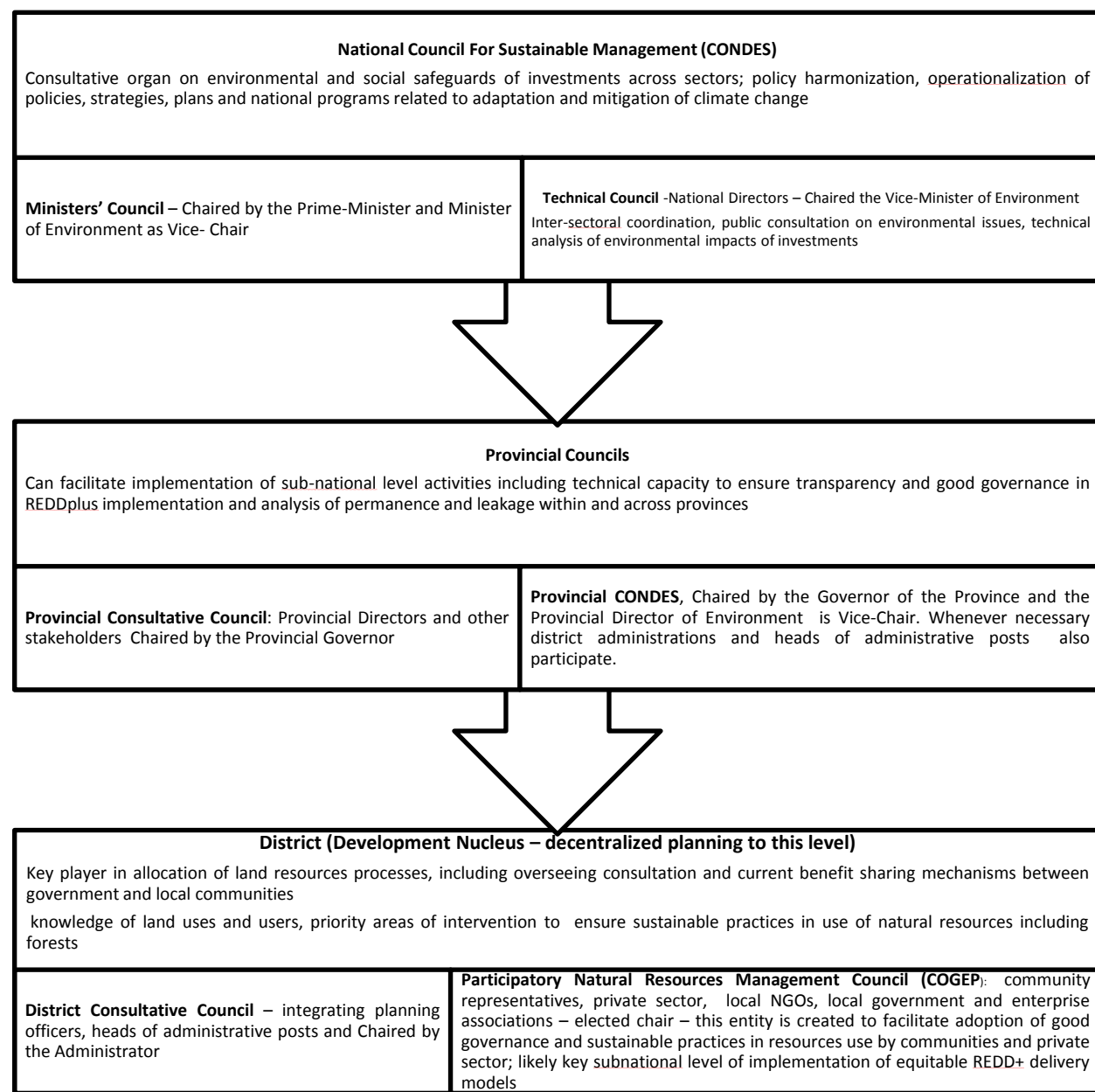
CONDES is the National Council for Sustainable Development (CONDES) created by Decree 40/2000, 17th October. It is a consultative organ on environmental and social safeguards of investments across sectors; addresses policy harmonization as well as input implementation of policies, strategies, plans and national programs related to adaptation and mitigation of climate change. CONDES has a clear mandate to provide strategic and policy support to REDD+ in the context of sustainable development that the country aims. As it will be highlighted later in this section, cross sector coordination for implementation of REDD+ will be led by the National Council for REDD+, which is the Technical Council of **CONDES**.

CONDES has the following composition:

- Ministry of Coordination of Environmental Affairs (MICOA), Ministry of Agriculture (MINAG), Ministry of Energy (MEnergia), Ministry of Planning and Development (MPD), Ministry of Tourism (MITUR), Ministry of Mineral Resources MIREM), Ministry of Finance (MF), Ministry of Transport and Communication (MTC), Ministry of Public Works and Housing (MOPH), Ministry of Industry and Commerce (MIC), Ministry of Fisheries (MP).
- Ministry of State Administration (MAE), Ministry of Health (MISAU) and the National Statistics Bureau (INE) whose integration was recently suggested.
- Civil society organizations: Private Sector Forum for Environment (FEMA), National Union of Peasants (UNAC), Association for Biodiversity and Sustainable Development (ABIODES), Medical Association, Association of Journalists (SNJ), Women's Forum and Associations of Municipalities.
- Key individuals that played prominent roles such as the Former Vice Chancellor of UEM – Brazão Mazula; Former Minister of Education Aniceto dos Muchangos; and first Minister of the Ministry of Coordination of Environmental Affairs – Bernardo Ferraz. **This provides an indication that when REDD+ is part of the agenda of**

CONDES, experts on REDD+ could also be part of this body to provide key technical advice to inform decisions.

Figure 3 Existing decentralized multi-sector decision-making bodies from national to community level



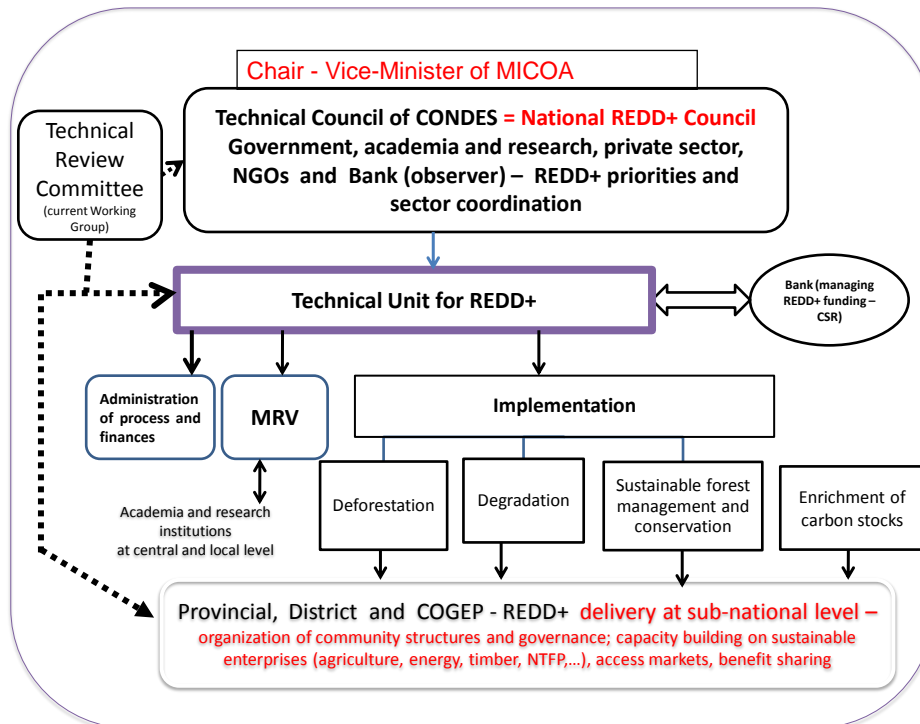
CONDES is also represented at Provincial level while inter-sectoral coordination at district and community levels is assured through the District Consultative Council defined by the 2007 Law of Local State Organs (LOLE) and the Council for Participatory Management of Natural Resources (COGEP) that is envisaged in the 1997 Forestry and Wildlife Law as multi-stakeholder body at community level responsible for decisions and monitoring of resources, land use practices and management. The creation of COGEP in all communities could facilitate REDD+ implementation.

Strengthen REDD+ delivery capacity

Despite the evolving capacity of MICOA, in particular, absence of a qualified devoted team to deal with the cross sectoral nature of REDD+ design with horizontal and vertical articulation certainly affects efficiency and effectiveness of execution of readiness activities and subsequent implementation.

As previously indicated, CONDES is an important consultative body, also on climate change adaptation and mitigation. Therefore, it is positioned to take important strategic decisions on low emissions development process, including review of land use, reporting changes and carbon emission targets, approving plans, technical and financial reports presented by the UT-REDD+ (Figure 4). CONDES as the overarching body will also ensure that good governance in management of resources as well as environmental and social safeguards are implemented. Discussions regarding institutional set up for implementation of climate change in the country may lead to adjustments of the structure suggested here.

Figure 4 The REDD+ Technical Unit and supporting bodies



The chair of the Technical Review Unit should sit in the National REDD Council to take note and advise on technical issue if the Coordinator of the UT-REDD solicit.

Given the importance of sector representation, particularly to ensure mainstreaming of REDD+ actions and policies in the relevant sectors, the participation of the following directorates was considered crucial:

- MICOA (DNGA, DNAIA, DNCI, CDS-NR) - Environmental Management, Environmental Impact Assessment, International Cooperation and the Centre for Sustainable Development – Natural resources based in Manica.
- MINAG (DNTE, DNEA, DNER, IIAM) – Lands and Forests, Agrarian Economy and Rural Extension, Mozambique Institute for Agrarian Research
- MITUR (DNAC) – National Directorate of Conservation Areas

- MAE (DNPDR, INGC) – Rural Development and Disaster Management,
- MEnergia (DNENR) – New and Renewable Energies
- MIREM (DNMinas) – National Directorate of Mineral Resources
- MOPH (DNE) – Infrastructure, including road network,
- MIC (IPEME) – Small and Medium Scale Enterprise
- FEMA/CTA – **private sector**

This organ also allows invitations of other stakeholders deemed relevant. Hence, it can accommodate representatives of pilot projects (on a rotational basis for example) and observers from the Bank¹ managing REDD+ resources and the United Nations Development Program (UNDP). The Bank (national) indicated in the structure shall present statements of accounts to the National Council while UT-REDD+ will present the financial report. This is to bring transparency on flow of funds as well as their application for REDD+ activities.

As readiness process proceeds, the composition may further be discussed to ensure both representation and functionality of this body. The council will meet twice a year while the Technical Review Committee shall meet quarterly. The frequency of meetings will be reviewed during the readiness preparation process.

The current REDD+ Working Group: Technical Review committee

The government has endorsed the current structure (REDD+ Working Group) through representation of State organs as well as using existing structures for reporting and feedback. However, consultations with legal department of MICOA are under way to formalize this group as Technical Review Committee. **Such formalization shall enter into force once the Technical Unit has been established and all governing procedures have been put in place. The composition of the review committee shall include other individuals (for example academics, community representatives in the provinces) based on their merit.**

This independent body shall contribute to:

- Assessment of technical soundness of REDD+ interventions and analysis of the impact of investments towards emission reduction goals.
- Review the alignment of REDD+ initiated through government or proposals presented by private sector, national and international NGOs and other entities with the national REDD+ strategy.
- Review processes of community engagement for allocation of including information made available, time provided for internal consultations within communities.
- Assessment of social and environmental safeguards.

The Review Committee shall link with the UT-REDD through regular meetings to discuss work plans and establish areas where technical input from this committee will be required. For example, analysis of proposals on interventions at community level that actor such as NGOs may want to facilitate. Analysis may assess the social impacts, economic viability as well as effectiveness in controlling leakage.

The mandate of the Technical Unit for REDD+ (UT-REDD+)

During consultation process the creation of REDD+ Technical Unit with administrative and financial autonomy was recommended. While cost implications were a key consideration,

¹ National Bank managing REDD+ funds

creating additional capacity is essential to effectively address the substantial technical and coordination demands of REDD+.

The Technical Unit (UT-REDD+) will be under the authority of MICOA, represented by the Vice-Minister as Chair of the Technical Council of CONDES. MICOA, MINAG and MITUR combine the multi-sector coordination and convening power on one hand, with the ample mandate in the agrarian sector and conservation areas which are critical to achieving the reduction of emissions and co-benefits of REDD+ on the other. The UT-REDD+ will also establish the necessary functional links with sub-national structures.

The Technical Unit (UT-REDD+) shall be responsible for the day-to-day operations of REDD+ in the country with, among others, the following tasks:

- Implement decisions made by the National REDD Council.
- Ensure sector integration of interventions that will contribute to REDD+ implementation.
- Coordinate land use planning and assessment of carbon stocks.
- Seek technical review of plans, methodologies, policies and interventions at provincial and national levels.
- Implement innovative processes of transparency and accountability.
- Coordinate the implementation of REDD+ readiness road map.
- Develop the technical infrastructure and human capacity for establishing REDD+ indicators and robust information management and reporting systems.
- Develop a workable strategy to organize enterprise associations and federations and equip local communities with know-how and means to implement sustainable land use practices.
- Coordinate measurement, reporting and verification processes.
- Promote good governance in use of natural resources to supply environmental services.
- Document, promote sharing of lessons and dialogue between researchers and policy/decision-making organs at national, sub-national and international level.
- Promote dissemination of research relevant for REDD+ and social and environmental impact.
- Articulate with delivery units at sub-national level. Capacity and viability analysis shall be conducted during the preparation of the final version of the RPP to establish whether to allocate additional man-hours to each of the provinces or, rather establish Regional REDD Units (South- possibly in Gaza, Centre-Zambézia and Nampula).

The Technical Unit (UT-Technical) is a REDD+ delivery (readiness and implementation) mechanism for the strategy and will be approved in that context.

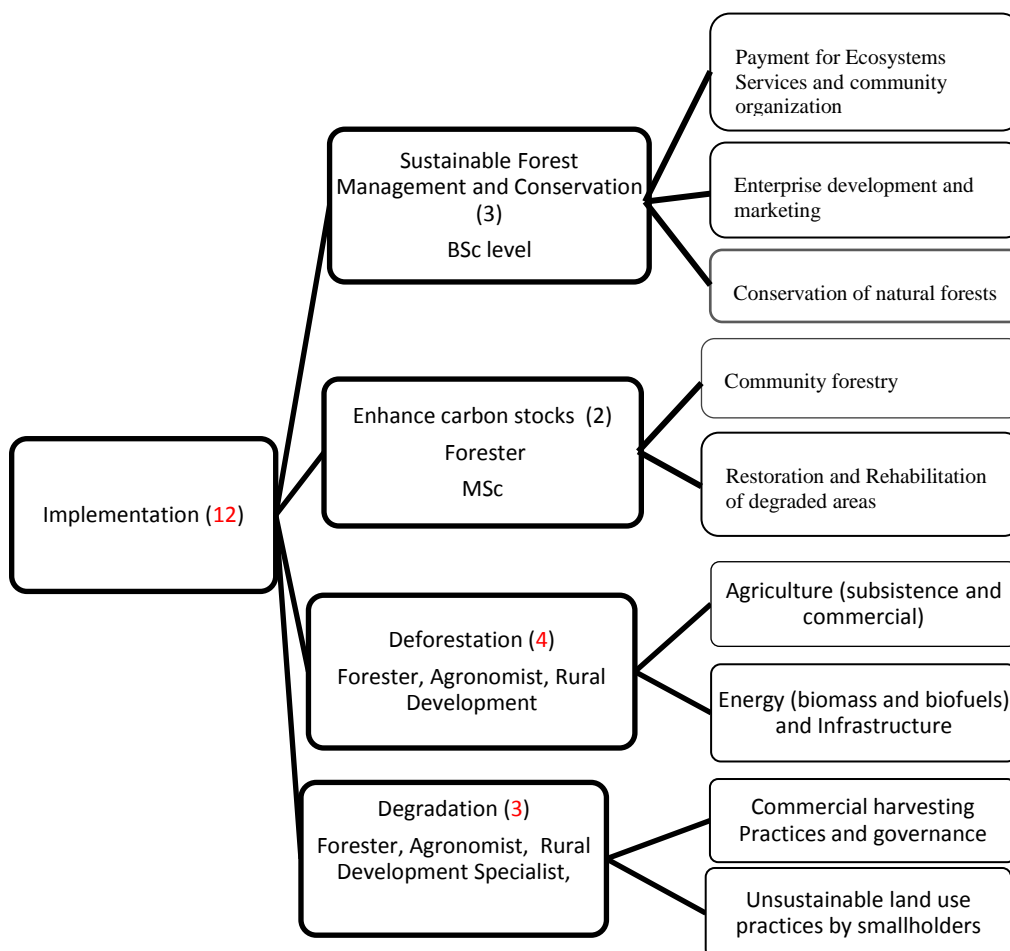
Composition and profile

The UT-REDD+ shall encompass an Executive Director working closely with i) three Programme Coordinators including two environmental economists to assist the design and implementation of incentive mechanisms at national and sub-national level, operationalize financing mechanisms agreed up on in the global negotiations; ii) Process and Financial Administration as well as monitoring and evaluation (with a minimum of four people), implementation officers responsible for each of the key areas of REDD+ and MRV.

At least 20 technical staff (Figure 5) and 4-5 support staff. This is designed to strengthen the coordination process between MICOA-MINAG and other sectors and take technical leadership.

Figure 5 UT-REDD+ positions and brief profile

<p>Executive Director</p> <p>head of the UT-REDD+ (1)</p>	<ul style="list-style-type: none"> • Natural Resource Economist, Natural Resources Management specialist, Policy Analyst, • Proven coordination, leadership, communication and negotiation skills • Proven detailed understanding of REDD+ and broader climate mitigation • At least MSC and significant experience with management of large scale programmes and deal with multiple stakeholders at different levels
<p>Programme Officer (3)</p>	<ul style="list-style-type: none"> • Environmental Economist - financing and benefit sharing mechanisms • Natural Resources Management, Agriculture, Conservation and related subject areas • At least MSC, strong coordination skills, independent, confident to take decisions, innovative, technical leadership
<p>Administration (4)</p>	<ul style="list-style-type: none"> • Head of Department - Economist, Business Administration at least MSC/MBA and experience, good conduct and financial management record • Process Management - International relations, Lawyer, Monitoring and Evaluation specialist, social scientist • Senior Accountant or Financial Manager (This role can be fulfilled by the National Forum for Environment- FUNAB if the structure of management of adaptation funds is agreed) • Accountant - BSC level, management of grants, experience in dealing with reporting requirement of bilateral/multilateral agencies



The 'Implementation office' shall comprise of:

- **Four** officers dealing with deforestation could be respectively responsible for overseeing the role of agriculture (small and large scale) and the impact of biomass energy and infrastructure development.
- on degradation at least **three** officers should be dedicated respectively to the role of forest harvesting (concessions and annual license operators) and, unsustainable production practices such as fire used in agriculture and hunting.
- The four officers on sustainable management of forests (SFM) and conservation will focus on improving efficiency, effectiveness and generation of co-benefits (biodiversity, poverty reduction and contribute to sustainable development). REDD+ will give impetus to community based natural resources management (CBNRM) by strengthening national level coordination and technical capacity to provide the necessary leadership. Participation of communities in SFM shall build on interventions of the CBNRM unit at DNTF and CBNRM forum (national and provincial).
- Enrichment of carbon stocks equally needs two officials to lead the definition of eligible activities and associated criteria and indicators. For example, during consultation on the scope of REDD+, the general view was that only plantations for rehabilitation of degraded areas (including mangroves), for conservation purposes (restrain erosion and coastal protection) and, biomass energy **and agroforestry systems** could be contemplated. This component will capitalize on the concept of 'one leader, one community forest' which fosters community participation in plantations.

However, the final modalities of implementing this component certainly require further analysis during consultation on social and environmental impacts. The frontier between REDD+ and CDM projects and carbon rights also need clarification to avoid alienation of communities.

MRV is an operative unit that should establish robust information management systems to ensure objective data collection according to internationally accepted/verifiable methodologies **to ensure national accounting system of REDD+ carbon credit**. This will determine the performance based payments that may be received as result of REDD+ interventions. Pilot projects being established in the country offer a learning ground on sub-national assessment of additionality, permanence and possible leakages. This sub-unit shall have one officer working in close coordination with the **Department of Natural Resource Inventory (DNRI) of DNTF responsible for national forest and natural resource assessment and monitoring systems including REDD+ MRV in close coordination with Provincial and District level forest services**. JICA is already supporting capacity development of national monitoring system on REDD+ by providing equipment and training in DNTF and provincial level. However, the UT-REDD+ also require a person dedicated to facilitating the definition of criteria for selection of implementation and control sites on MRV and to bring information on development of cost-effective and participatory methodologies for measuring, monitoring and monitoring carbon stocks and changes.

Delivery of REDD+ at sub-national level

While the national level UT-REDD+ play the coordination role including links with international processes, there is need to establish local operational units. These should be responsible for identifying interventions; facilitating links with implementers such as NGO, academia, research institutions and others; assess leakages and permanence in REDD+ interventions; monitor and report on implementation including benefit sharing and progress on safeguards.

There are three options for establishing sub-national offices: (i) in the provinces identified as critical in terms of deforestation and degradation - Gaza, Manica, Sofala, Tete, Zambézia,

Nampula and Niassa; (ii) establish a unit in each of the ten provinces; (iii) have regional offices in the North (based in Nampula and also responsible for Niassa and Cabo Delgado), Centre (based in Zambezia and manage also Manica, Sofala and Tete) and South (based in Gaza and in charge of Inhambane and Maputo). These options have to be analyzed in terms of transaction costs of their establishment and effectiveness in articulating with provinces and interventions at community level. This should be equally consulted on.

Sub-national multi-sector coordination institutions

More emphasis will also have to be given to the sub-national level, as the institutional set up is still subject of discussion during the ongoing consultation. However, similarly to the national level, there is need for cross-sector and multiple stakeholder engagement and ownership of the process. The government's decentralization process has facilitated creation of decision bodies at provincial and district levels that can be capitalized on. However, the REDD+ readiness process needs to strengthen the role of the following critical players:

- Government –
 - Provincial Directorates for the Coordination of Environmental Affairs (DPCA),
 - Agriculture (DPA) working on lands, crop production, livestock, forestry, wildlife outside protected areas, extension services,
 - Energy (DPEnergia),
 - Planning, Development and Finance (DPPF),
 - Mineral Resources (DPRM).

Similarly to the coordination between MICOA and MINAG at central level, DPCA and DPA should play a leading and catalytic role in the working group and cross-sector coordination at provincial level. The working groups need to be institutionalized within the government structures to ensure long term commitment and delivery of REDD+.

- Academia –
 - Public and private institutions of high level education on agriculture, forestry (including those with expertise and training on mapping and assessment of resources), law and other relevant subjects.
 - Diploma level schools are also vital as they create capacity to support land users in accessing information on sustainable production technologies as well as markets. These will be the front runners in facilitating REDD+ implementation.
- National and International NGOs
 - working on agriculture, agribusiness and rural development,
 - tenure and rights advocacy as well as facilitation of process of land resources registration, conservation, and participatory natural resources management.

There are also provincial and regional (Centre, North and South) NGO forums or coordination platforms – e.g. on CBNRM, Amigos da Floresta, Forest Governance Learning Group, and NGOs also participate in the Forest Forum led by DNTF. These can add value in bringing community voices to the REDD+ process, as well as sharing lessons.

- Representative of local communities through selection of leaders of community based natural resources management (CBNRM) initiatives. There are several CBNRM committees/councils in the country created by the Policy and Law for Development of

the Forestry and Wildlife Sector. ORAM is a local NGO that work extensively with communities throughout the country advocating for their rights and helping to establish local decision-making and producer groups (associations). Other NGOs, such as Fórum Terra and the Community Land Initiative (ITC) have an extensive work at local level and they should be part of local level institutions as well as facilitating involvement of community leaders. The concept of indigenous people is not applicable to Mozambique and it is considered pejorative. Rather there are communities facing resources tenure insecurity, principally in the rural and peri-urban areas. Rural and urban populations are still dependent on land resources for livelihoods; thus their concerns and knowledge must be taken into consideration during the REDD+ readiness process. Therefore, this is the context that should define a broad representation and ensure that local voices are heard.

- Private sector – CTA, the Confederation of Private Sector Associations has representation at national and provincial levels. This institution involves businesses across the spectrum of the economy, including mega-investments, **large scale agriculture investments and timber concessionaires**. Discussions have started at the national level to define engagement opportunities and identify provincial hubs to participate in the REDD+ process. There are also associations of concessionaires and timber operators or service providers, such as transport companies, that can contribute to the development of REDD+ strategy.
- **Small scale forest enterprises including charcoal producers, woodcarvers, pole harvesters and other users need also to be involved.**

The process of identification and involvement of stakeholders started with 2010 to build overall understanding of the context, challenges, possible interventions and scenarios that culminated with the national REDD+ action plan and the design of this readiness proposal. Consultations are still ongoing to further disseminate REDD+ concepts and initiate discussions of scenarios such as on reference levels and elements of design of sub-national level delivery mechanisms.

Therefore, the working group at national level, in particular MICOA and MINAG shall invite institutions or formalize the provincial level working groups. Their mandates, and that of individual members, have to be designed following further capacity assessment during the implementation of the readiness process.

Government ownership of the process and products

While IIED and UEM, in particular, facilitated the REDD+ process so far, the expertise drawn from was national. There is gradual transfer of protagonist on technical issues to MICOA and MINAG. This is work in progress. Senior staffs of MICOA and MINAG are strongly involved but overloaded to dedicate the required time. The UT-REDD+ aims to provide technical and coordination leadership while feeding adequate information to DNGA and DNTF.

MINAG, through the Department of Natural Resources Assessment and Lands, has been producing forest inventories, mapping land use and land use changes, agriculture and reforestation zoning, mapping land allocation and elaborating national statistics on resources exploitation. Government technical staff visited the provinces of Maputo, Gaza and Zambézia to assess information on drivers of deforestation and forest degradation. They experienced firsthand the discrepancies of data, therefore not only raising awareness on the scale and nature of problems, but prompting them to think of the necessary training and investment in resources at national and local level. This is essential to having more robust and reliable information management system and MINAG can certainly lead the MRV process. In fact,

The grant allocated by JICA to Mozambique, will ensure that the necessary human and physical capacity is created for developing a nationwide MRV system. This example also ensures ownership of one of the complex areas of REDD+ implementation, which is monitoring of carbon stocks.

The consultations and capacity building currently ongoing in the provinces and communities will enable further assessment of capacity needs and training plan that may be undertaken during implementation of the R-PP.

Table 2 Main interventions and schedule for Component 1a

Task/Action	Responsibility	Time frame
Formal statement of Technical CONDES as the National REDD+ Council by the Council of Ministers Information on REDD+ process to date	Minister for Coordination of Environmental Affairs	By end of 2011
Target awareness raising to key government sector using special REDD+ related agenda item in the Consultative Councils of the Ministries (MINAG, MITUR MEnergia, MPD, MAE and others)	Working Group	By second Quarter 2012
Design of TOR for all positions of the REDD+ Technical Unit	MICOA and MINAG REDD+ focal points – Deputy National Director for environmental Management and Head of Forestry Department	By end 2011
Establishment of the REDD+ Technical Unit: recruitment, operations and code of conduct	MICOA and MINAG	By end of second quarter of 2012
Establishment of mechanisms to evaluate and address social and environmental impacts resulting from REDD+	UT-REDD+	By end of second quarter 2012
Design TOR for sub-national UT-REDD+ and recruitment	UT-REDD+	By end of second quarter 2012
Design capacity building of personnel at national and subnational level on various aspects of administration of REDD+ process	UT-REDD+	By end of second quarter 2012
Monitoring, documentation and sharing lessons from pilot projects	UT-REDD+	Start third quarter of 2012 onwards

Table 3 budget for Component 1a (To be further developed)

Table 1a: Summary of National Readiness Management Arrangements Activities and Budget (and hypothetical example)

Main Activity	Sub-Activity	Estimated Cost (in thousands US\$)				
		2011	2012	2013	2014	Total
REDD-plus management unit						
	Meetings (e.g., travel for stakeholders on WG and UT-REDD+)	\$	\$30	30\$	15\$	\$
	Dissemination of reports, briefings	\$	\$10	\$	\$	\$
Hire 20 staff for UT-REDD+	16 Technical staff	\$	\$288	\$384	\$192	\$
	4 support staff	\$	\$18	\$24	\$	\$
Operations		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total			\$	\$	\$	\$
Domestic Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

1b. Information Sharing and Early Dialogue with Key Stakeholder Groups

[note: former component "1b Consultation and Participation" has been divided into two new subcomponents: "1b" as shown here (for early stages, pre-consultation); and "1c Consultation and Participation Process" (which contains most of the former 1b material)]

[Keep this box in your R-PP submission]

Standard 1b the R-PP text needs to meet for this component: Information Sharing and Early Dialogue with Key Stakeholder Groups

The R-PP presents evidence of the government having undertaken an exercise to identify key stakeholders for REDD-plus, and commenced a credible national-scale information sharing and awareness raising campaign for key relevant stakeholders. The campaign's major objective is to establish an early dialogue on the REDD-plus concept and R-PP development process that sets the stage for the later consultation process during the implementation of the R-PP work plan. This effort needs to reach out, to the extent feasible at this stage, to networks and representatives of forest-dependent indigenous peoples and other forest dwellers and forest dependent communities, both at national and local level. The R-PP contains evidence that a reasonably broad range of key stakeholders has been identified, voices of vulnerable groups are beginning to be heard, and that a reasonable amount of time and effort has been invested to raise general awareness of the basic concepts and process of REDD-plus including the SESA.

Previous experience in consultation

Coordination for development of strategies and action plans for the UN Conventions on Biodiversity (NBSAP in 2003), Combat Desertification (draft in 2003) and Framework Convention for Climate Change (NAPA in 2007) has steered cross sector coordination and participatory process at different levels. The National Institute of Disaster Management (INGC) also played a leading role in undertaking studies on disaster management and adaptation to climate change. This relied on national and international expertise but various fora were organized where stakeholders provided inputs into the process.

The World Bank conducted a Global Study, including Mozambique as one of the country's studies on Economics of Adaptation to Climate Change. The research process involved participation of national, provincial and district level experts and local government in scenario development and analysis of social impacts.

The development of national policies on lands and forestry constitute the main examples of a participatory process from grassroots to the national level with involvement of government, academia and NGOs – this led to what was known as 'Land Campaign'. The main thrust of this campaign was that there are no 'vacant spaces', frontiers of community territories spanned beyond the immediate homestead or cultivated land. This resulted in recognition of customary land rights and implementation of land delimitations for communities and subsequent registration. This also opened opportunity for communities to access forest and wildlife resources and realization of CBNRM. Furthermore, consultations extend to land resources allocation to private sector (for investments) and government (e.g. for establishment of new protected areas or extending boundaries), strategic environmental assessment and other initiatives.

The CBNRM forum with financial support of WWF comprising of government and non-government organizations, also led the development of the CBNRM strategy (2009) through participation of regional fora and stakeholders from government, private sector and NGOs.

In addition, during formulation of the Growing Forest Partnership programme for Mozambique, the consultations at regional (North, Centre and South) and national levels included specific themes on climate change mitigation. This was delivered to a range of stakeholders from government, non government agencies, engaged in rural development, participatory forest management and rights advocacy, academic institutions and private sector. This engagement was undertaken early 2009.

Analysis of environmental impact of investments conducted by MICOA, through the National Directorate of Environmental Impact Assessment requires public consultation of all interested and affected parties. Implementation of environmental management plan include periodical reporting on environmental indicators and respond to social and environmental concerns, generally put forward by NGOs.

The main issue, however, is the type of information provided to stakeholders, presentation of that information in a discernible manner for the target group, time allocated for internal discussions and at times manipulation and corruption by businesses (for example, using simple gifts to local leaders and promises of further gains Norfolk et al (2003) on consultations 'Só para o Inglês ver' – The Policy and Practice of Tenure Reform in Mozambique) of the process by raising unfulfilled expectations on benefits of investments for local communities.

The PROFOR funded REDD+ study on miombo woodlands executed by IIED offered a good stock taking on awareness regarding climate change mitigation and role of forests. The national workshop undertaken in April 2009, in Maputo, provided the initial platform for comprehensive discussion of the policy, legal and institutions framework as well as the extent to which they are conducive to implementing REDD+ in the country. The study also investigated the extent to which REDD+ could build on going CBNRM initiatives (Nhantumbo and Izidine, 2009).

Stakeholders' identification

The study on miombo woodlands referred before contributed to identification of stakeholders with interest on REDD+ starting with the interviews with individual government officials from October 2008 and civil society organizations including facilitators of Nhambita project (Plan Vivo initiative) and culminating with the national workshop. Similarly, development of the Growing Forest Partnership of the Global Catalytic Group (World Bank, FAO, IUCN and technical support of IIED) initiative in Mozambique also was based on wide consultation and cross sector coordination bringing together government, NGOs, private sector, academia and local level actors in designing the process and steering bodies.

The categories of stakeholders included:

- *primary actors* (MICOA and MINAG) ensuring sustainable development of all economic sectors through implementation of environmental standards; sustainable management of land and forests through design and implementation of management plans guiding commercial harvesting and community based natural resources management promoting good land use practices. Communities, private sector and other users constitute key interest groups whose practices determine current and future rate of deforestation and forest degradation. Development partners are put at this level as the preparatory activities, and possibly the performance based payments

are funded by these agencies as part of the commitments of developed countries to contribute to curbing emissions;

- *secondary actors* representing a set of government agencies that manage processes and economic activities that impact on forests such as mining, infrastructure or biofuels requiring stringent implementation of environmental impact assessment and processes that limit the infringement on community rights. REDD+ implementation may bring additional impetus to strengthening law enforcement. Possibly transaction costs of doing so may increase, but gains could result from reduced emissions and associated change in climate;
- *service providers* include training and research institutions, extension services from government and non-government organizations and private sector.

Other key stakeholders include the multi-sector coordination bodies described in the previous section as well as community based organizations overseeing land rights and decision-making on use of forest resources. Given that land tenure provides security of rights to communities and given their engagement in CBNRM, REDD+ offers an opportunity to finally recognize not only direct gains from livelihoods, but also value environmental services such as conservation of biodiversity and reduction of emissions.

Consultation principles

REDD+ is a new concept for many stakeholders including policy makers at different levels, research institutions, academia, NGOs, up to the local level. Despite the cognizance that consultation on REDD+ ought to particularly ensure that concerns of local communities are voiced and their rights as well as livelihoods have to be protected, sensitizing various actors that need to facilitate the process was paramount. Therefore, the first phase of consultations was undertaken with mostly technical actors at national, provincial, district and local level.

As defined in the guidelines (FCPF & UN-REDD) and compilation of international best practices on consultation (Macqueen, 2009), the principles that directed consultation included:

- *transparency*, for example, all consultations included presentation of background information on climate change mitigation, the south-south collaboration and information on previous activities as well as way forward;
- *inclusivity*, during the process we took the extra-mile to engage private sector beyond timber operators. A visit was paid to CTA leadership to organize a meeting with the members with a date convenient for them in their space/venue. Despite this effort, CTA members did not attend the meeting allegedly because the Governor of the Central Bank was presenting the monetary policy at the same time. While acknowledging the importance of the latter, the fact that they did not cancel the meeting and set up another one, shows that consultations may be costly as they have to involve persuasion of the leadership;
- *Information* was provided taking into account the diverse capacity of stakeholders; free, prior and informed consent as well as conflict management mechanisms will be pursued during development of R-PP. Stakeholders had information to aid decision making on options and consider potential impacts on land resources tenure, carbon rights and livelihoods.
- *representation* of 'stakeholders' was given particular attention and engagement with provincial DPCA facilitated the communication prior to consultations; further consultations at community level will include local authorities including traditional

authorities where they exist, CBNRM committees, enterprise association and ensure gender balance.

- *timeliness* this refers to providing sufficient information with sufficient time to inform their opinion. The activities undertaken thus far were the first comprehensive information dissemination and sensitization on REDD+. Therefore, it was not possible to provide information for stakeholder groups to form an opinion beforehand. Decision making on interventions in pilot areas are now likely to be objectively discussed in terms of impacts and potential benefits to households, communities and climate mitigation in general.
- *flexibility* in discussion of methods of engagement with stakeholder groups in advance was not practical due to the novelty of issues and high transaction costs. However, the methodology of the consultations were discussed beforehand and suggestions from participants were also incorporated whenever expressed and in line with the purpose of the meeting;
- *accountability* this was addressed by choosing Nampula to present the draft action plan based on previous contributions of provincial and regional consultations. Nampula hosted data collection including visit to districts with high pressure on forests, provincial and finally regional level consultation. For example, Nampula is the only province where stakeholders indicated that *reducing deforestation and degradation was not possible due to cultural norms that allow premature pregnancy and also high birth rate*. According to stakeholders new houses have to be built as well as opening new farms. This view was not simply dismissed, but all views from other consultations contradicted this position and discussion on alternatives to the problem. Besides this, at the end of each consultation, a summary of key issues raised was made and possible differences in opinions from elsewhere highlighted.
- *Reporting* on consultation using language accessible to stakeholders. This will be taken into account as the consultation proceeds at pilot area level. The practice in the CBNRM initiatives, for example, has been to document experiences in Portuguese. Accessing information depend on translation services offered by literate particularly teachers as tend to be respected and trusted in their communities. This is not ideal, but writing in local language also may not mean that people will be able to read. Innovative ways such as voice recording of decisions, use of theatre, posters etc. can also be effective means of recording key decisions and commitments.
- *Continuity* – the engagement process shall proceed to formulation of the REDD+ readiness including strategy, implementation, monitoring and evaluation phases.

A roadmap towards a National REDD Strategy

Arising from November 2009 National REDD Workshop a 'Roadmap towards a national REDD strategy' was developed by the National REDD Working Group. At the World Forestry Congress in 2009 representatives of MINAG, UEM, FAS, IIED, CTV, ORAM and IPEME (Institute for Small and Medium Enterprises of the Ministry of Industry and Commerce) met to discuss this initial roadmap and agreed that the chapters in the roadmap should be prepared as options papers, arranged in a logical order, and covering the main areas in which decisions were necessary in order to develop a national REDD strategy. It was agreed that MICOA / MINAG, as lead agencies should organize a series of National REDD Working Group meetings covering each of these topics in turn. The idea was that expert groups drawn from among or beyond the partners would prepare a background paper on each theme with options for a government decision. In this way the newly emerging partnerships expertise could be channeled into a multi-stakeholder forum where decision-making could occur.

Following signing of the project with the Embassy of Norway in Maputo, IIED visited all institutional partners in Mozambique – MICOA, MINAG, UEM, CTV and INDUFOR to discuss the practicalities of delivering the necessary inputs for this process. Draft ToRs were developed with all non-government partners and initial discussions were held with MICOA / MINAG, who agreed to lead the organization of the national REDD Working Group meetings. At the COP 15 in Copenhagen FAS, together with INDUFOR, prepared a side event or ‘cocktail’ at which members of the Mozambican delegation together with FAS would present the South-South REDD initiative and the roadmap towards a national REDD strategy.

In February 2010 the National REDD Working Group met to review the work plan for 2010. The plan was to start with the production of background papers on inventory and reference level for deforestation and degradation, monitoring as well as the scale and scope of REDD in the country. The first two were under the responsibility of Eduardo Mondlane University, Faculty of Agronomy and Forestry while the content of the last was to be produced by IIED. Materials were prepared for the second technical meeting to be held on 1 March 2010. This was to coincide with the visit of the Norwegian Minister of Environment to Maputo. However, the government, through MICOA, rescheduled as a more limited presentation of the concept and process of South-South REDD during the meeting. **In this meeting**, the Minister of Coordination of Environmental Affairs urged the REDD Working Group to produce the National REDD Action Plan as soon as possible, preferably by June 2010. This document was necessary to inform the high level policy makers in the country about REDD+ concepts, options and implications for the country. **This affected the roadmap designed to develop the RPP.**

The National REDD Working Group approach to these parallel demands was to work on the process towards and drafting of the National REDD Action Plan while simultaneously conducting that process in a manner that will contribute to the content of the R-PP: consult and organize, drivers of deforestation and strategic options, reference levels and MRV.

Provincial level consultations and field studies

At the April 2010 workshop indicated in the roadmap five provinces were chosen based on different drivers of deforestation and degradation (see map):

- Niassa - large scale industrial plantations are being established and some companies are seeking certification despite conflicts with local communities that lost land;
- Nampula - many competing land uses (large and small scale commercial and subsistence agriculture, biofuels, extraction of high value timber, biomass energy, forest plantations, mining) and users.
- Tete - coal mining, electricity distribution infrastructure, livestock rearing beyond carrying capacity resulting in soil erosion.
- Zambézia - intensive harvesting of forest resources in the biggest carbon reservoir in the country; law enforcement and governance challenges including illegal logging.
- Gaza - pressure on forests due to harvesting construction timber and biomass energy to supply Maputo city, besides agriculture and use of fire.

The schedule of consultations was as follows:

- Gaza – 27th April 2010 Under the responsibility of MICOA/IIED
- Niassa – 3rd May 2010 Under the responsibility of MICOA/UEM

- Nampula – 7th May 2010 Under the responsibility of MICOA/IIED
- Tete – 10th and 11th May 2010 Under the responsibility of MICOA/CTV
- Zambézia – 10th -11th May 2010 Under the responsibility of MINAG/UEM

Figure 6 Location of consultations and data collection processes



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Participants of the provincial consultation included invitations to 2-3 district officers in agriculture, forestry or planning (drawn from the District Services for Economic Activities), private sector representatives, NGOs, academia as well as provincial government agencies across sectors previously mentioned. Some administrators attended the consultation as well as municipal authorities. Nampula had 100% representation of districts. Community consultations were carried out in Tete and Zambézia provinces and data collection exercise focused on understanding the household land uses, practices to gauge potential impact from implementation of REDD+. The regional consultations brought together three provinces each from North and South, and 4 from the centre.

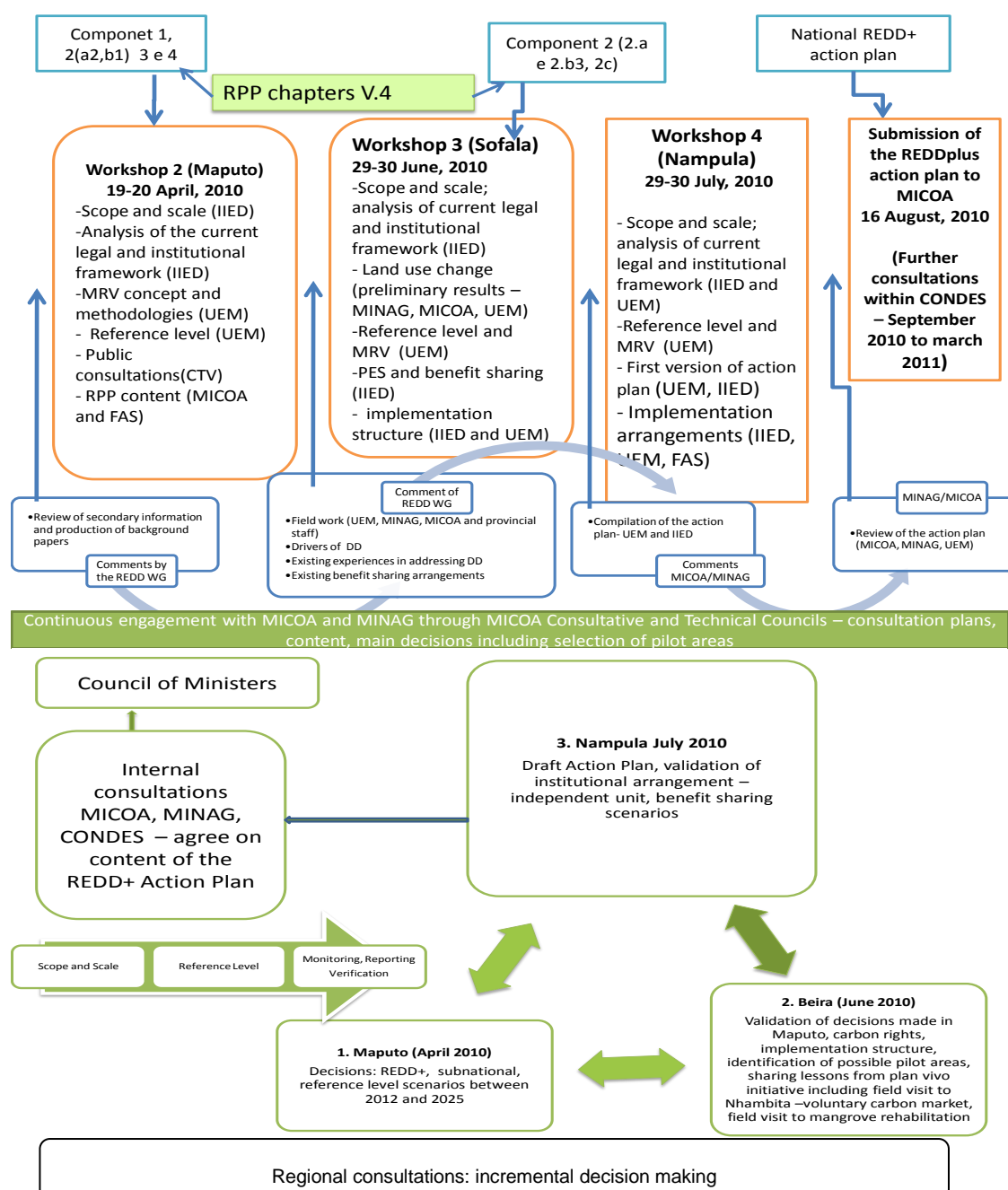
Acting in parallel with workshops, three teams (one per region), integrating four specialties (forestry, agronomy, economics and GIS) went to the field (Niassa, Nampula, Tete, Sofala, Gaza and Maputo) to collect information on land cover, land use and threats to forests as well as assessing the opportunity cost for REDD implementation. Staff from MICOA, MINAG and UEM, under the leadership of the latter, participated in these field missions in order to help build their own understanding of, and capacity to deal with REDD. The fieldwork was conducted in an average of 5 days per province. These teams attended the provincial consultations, which gave them an overview of the issues and helped defining districts and

communities for further discussions. Methodology for data collection was jointly discussed with all teams. Provincial based technical staff from DPA and DPCA integrated the teams.

Regional Consultations

Figure 7 highlights the plan of the consultation and the themes discussed. As shown in this figure, the first regional workshop was held on 19-20 April 2010 in Maputo to discuss key issues such as options for RED, REDD or REDD+, reference levels and Measurement, Reporting and Verification (MRV) as well as the consultations in the rest of the country.

Figure 7 Regional (South-Maputo, centre-Beira in Sofala and North-Nampula) consultations REDD+ readiness



At a third regional workshop in Beira (Sofala) from 29th – 30th June, the results of these consultations were presented and the go-ahead was given to a drafting team drawn from the National REDD Working Group to prepare an initial version of the REDD Action Plan. The first draft of this document was presented at regional meeting in Nampula in July and subsequently with various interactions with MICOA, MINAG, CONDES and follow-up with Ministry of Planning, State Administration, Ministry of Finance and others provided inputs. Comments were always integrated and the following meeting generally reflected these inputs. The approach used was incremental validation of decisions or issues raised. However, the workshops had a common framework which was presentation of basic concepts; working groups for identification of main causes of deforestation and degradation, actors and on-going or past actions to address them and, identification of potential pilot areas. Discussions were also conducted regarding lessons on current benefit sharing mechanisms between the state and local communities.

Table 4 Consultations at provincial, regional and local levels: who participated?

Consultation	Geographic coverage	Date	Institutions present	Number of participants
Maputo	South (Maputo, Gaza and Inhambane)	19-20/04 /2010	Working group – DNGA, UEM, DNTF, CTV, IIED, FAS Government - DPCAG, DPCAI, DPAI, MITUR (DNAC), MF (environment, agriculture, forestry, conservation areas, finance) NGOs - WWF, IUCN, Justiça Ambiental Academia: UEM Private sector - Green Resources, GAPI	33
Gaza (Xai-Xai)	Gaza province	27/04 /2010	Working Group – MICOA, IIED, UEM Government - SPFFBG, DPCAG, DPOBHG, SDPI, SDAE (agriculture, forestry, public works and housing, district economic activities, district planning and infrastructure) districts represented: Bilene, Guija, Chigubo, Chibuto, Chicualacuala, Massingir, Mabalane, Xai-Xai	25
Niassa (Lichinga)	Niassa province	3/05/2010	Working Group: UEM Government: DPAN, SDPI, DPCAN, SDAE, DPREME (agriculture, forestry, environment, mineral resources and energy, district economic activities, district planning and infrastructure) Districts: Lichinga, Sanga, Lago, Mandimba, Marrupa NGOs: WWF, ROADS Private sector: Malonda	30
Nampula (Nampula)	Nampula province	7/5/2010	Working group: MICOA, IIED Government: Municipal, DPCA, DPA, SDAE, SDPI, DPREME, (agriculture, forestry, environment, district planning and infrastructure, district economic activities) Districts: Nacala-Poro, Nacala Velha, Murrupula, Mugovolas, Mongicual, Angoche, Moma, Ribawe, Mecuburi, Meconta, Monapo, Mossuril, Lumbo, Erati, Muecate, Nampula, Memba, Lalaua Private sector: Green Resources, Association of Timber Operators, Association of Commercial Agriculture, Association of Charcoal Producers Academia: (name)	63

Tete (Tete and Mutarara)	Tete Province Community	10-11/05 /2010	Working group – MICOA and CTV Government - DPOPH, SDPI, SDAE, DPCAT, DPAT (agriculture, forestry, environment, district economic activities, district planning and infrastructure) Districts of Tete, Zumbo, Maravia, macanga, Magoe, Cahora, Moatize, Angonia and Mutarara	29 17
Zambézia (Quelimane)	Zambézia Province	21/07/2010	Working group: MICOA, MINAG, UEM Government: DPCAZ, DPAZ, SDPI, SDAE, DPOHZ (environment, agriculture, forestry, public works and housing, district economic activities, district planning and infrastructure) Districts represented: Pebane, Milange, Gurue, Namaroi, Alto-Molocue, Ile, Mopeia, Morrumbala, Chinde, Mocuba, Lugela, Gile, Maganja da Costa, Namacura, Inhassunge, Nicoadala and Quelimane NGOs: ORAM, NRPAZ, FAEZA, FONGZA, UMBBG, RADEZA Academia: ISPU Private sector: Protecnicas Media: Radio Mozambique and TVM	48
Sofala (Beira)	Centre (Manica, tete, Sofala and Zambezia)	29-30/06/2010	Working Group: MICOA, MINAG, UEM, IIED Government – DPCAS, DPCAM, DPCAZ, DPAM, DPAS, SDPI, SDAE, DPOHS, DPFS (agriculture, forestry, environment, public works and housing, district economic activities, district planning and infrastructure) Development partners: JICA Academia: UP, UCM NGOs: WWF, Envirotrade-Sofala, REDEZA-Zambezia, Kwaeza Simukai-Manica; iTC-Manica, ADEL Enterprises Association of Buzi peasants Private sector: GAPI	35
Nampula (Nampula)	North (Nampula, Cabo Delgado and Niassa)	29-30/07/2010	Working group: MICOA, MINAG, UEM, CTV, IIED, FAS Government: DPANpl, DPCANpl, DPAN, DPCAN, DPACD, DPCACD, SDPI, DPOPHN, DPOPNp, DPFNpl, DPCAN (agriculture, forestry, environment, public works and housing, district infrastructure, planning and finance) NGO: ORAM Academia: ISPU, UP Private sector: Green resources Media: Radio Mozambique and TVM	43
Maputo (Maputo)	Development partners	7/2/2011	Government: MICOA, MINAG, MINEC, CONDES Development partners: Norwegian Embassy, Finnish Embassy, Portuguese Embassy, Swedish Embassy, Danish embassy, UN-Habitat, EU, DFID, UNEP, FAO Media: Rádio Indico, TIM, AIM, Jornal Verdade, Diário de Moçambique, Jornal Banthu, STV, Radio Mozambique	34
Mabalane district	Gaza province	12/7/2011	Working group: MICOA, CTV Government: Head of Administrative Post, SDAE, SDPI, CCD (district economic activities, district planning and infrastructure, district coordination)	39

			<p>council), law enforcement officers (forest guards)</p> <p>Local community representatives: Mozambique Women Organization (OMM), community leaders. Community members,</p> <p>Education: teachers of primary schools (Hoyo-Hoyo and Cumbane) and Mabalane secondary school</p> <p>NGO: World relief, WWF</p> <p>Media: Community Radio</p>	
Chicualcuala District			<p>Working group: MICOA, CTV</p> <p>Government: Head of Administrative Post, SDAE, SDPI, CCD (district economic activities, district planning and infrastructure, district coordination council), law enforcement officers (forest guards)</p> <p>World food programme (WFP)</p> <p>Local community representatives: Mozambique Women Organization (OMM), community leaders; community members, religious representatives</p> <p>NGOs: Hitlatla, CARITAS, Samaritans, Agriculture Association Dingue, Association of Timber operators, ORAM</p> <p>Media: Community radio</p>	31
Inhambane district	Inhambane province	26/07/2011	<p>Working Group: MICOA and CTV</p> <p>Government: DPCAI, DPAI, DPOPHI, DPTurismo, INGC, DPREME, SDAE, SDPI, (environment, agriculture, forestry, public works and housing, tourism, disaster management, mineral resources and energy, district economic activities and district planning and infrastructure)</p> <p>Academia: UP</p> <p>Ngos: ACUMUZA, ACUDES, WONELA</p> <p>Media: Community radio</p>	31
Chimoio district	Manica province	13/7/2011	<p>Working group: MICOA, MINAG, CTV</p> <p>Government: DPAM, DPCAM, DPOPHM, DPTurismo, DPREME, CDS-RN, INGC, SDAE, SDPI (agriculture, forestry, environment, public works and housing, tourism, mineral resources and energy, disaster management, centre for sustainable development, district economic activities and district planning and infrastructure)</p> <p>Technical training: IAC (Chimoio Institute of Agriculture – diploma)</p> <p>NGOs: ADEL, CARITAS, ORAM, GIZ-PD</p> <p>Private sector: Envirotrade, KSM, F. MICAIA</p> <p>Academia: mUP, UniZambeze</p>	36
Morribane Administrative Post	Manica province, Sussundenga district	14/7/2011	<p>Working group: MICOA, MINAG, CTV</p> <p>Local government, traditional leaders, local police officers, producer associations, teachers, forest guards, farmers, members of community based natural resources management councils, traditional healers, environmental awareness activists, tourist guides, students, adult educators, shop keepers, private companies</p>	60
Zomba administrative post	Manica province, Sussundenga district	15/7/2011	<p>Working group: MICOA, MINAG, CTV</p> <p>Local government, community/traditional leaders, community scouts, local community police, farmers, teachers, members of community based natural resources management councils, traditional</p>	121

			healers, environmental awareness activists, tourist guides, students, adult educators, traders, forest concessionaires	
Vanduzi administrative post	Sofala province, Gorongosa district	19/07/2011	Working group: MICOA, MINAG, CTV Local government, community/traditional leaders, community scouts, farmers, herders, teachers, members of community based natural resources management councils, traditional healers, environmental awareness activists, adult educators, traders, private companies, Gorongosa national park managers	77
Derre administrative Post	Zambezia province, Morrumbala district		Working group: MICOA, MINAG, CTV DPCAZ, SDPI, SDAE, local government, religious community, students, teachers, local NGOs, community/traditional leaders, farmers, community activists, environmental activists, former combatants	86

Results and Issues from consultation

Overall participants of the consultations agreed that REDD+ should be adopted to address the whole spectrum of land use and land use change challenges in the country. Such would allow gradual development of capacity to measure change of emissions from deforestation and degradation of forests as result of forest and agriculture activities as well as energy demand. Participants also **stressed** the need to align REDD+ with development plans of these sectors.

The consultation held in Maputo approved the consultation plan **at provincial and regional level**. All other consultations **subscribed** to the use of historical deforestation rate and projected land use changes to establish reference level scenarios **as well as to determine the total tree biomass**.

Other issues highlighted include:

- REDD+ is encompassing, hence will increase carbon stocks in the country. This can be achieved by:
 - Increasing the number of long term concessions
 - Reducing annual licenses for small scale operators and provide incentives for them to adhere to concession regime.
 - Creating more forest reserve and improve management of existing.
 - Strengthening law enforcement capacity.
 - Monitoring mining practices and enforce requirements for rehabilitation or restoration of degraded areas due to this activity.
- A reference level scenario of reducing the current (0.58%) deforestation rate even by 50% constitutes a challenge for Nampula due to population dynamics, cultural customs, reproduction patterns and economic activities. In other words some participants were of the opinion that REDD+ is not viable in this province. However, this was not a unanimous position. **Nonetheless, the critical point worth noting is that population increase and demand for products is a challenge to REDD+ implementation. This aspect will be taken into account in determining the scenarios of reference levels.**
- Specific legislation to address REDD+ is necessary as the current does not provide incentives for conserving forests, but rather rewards deforestation and degradation. Nevertheless, the majority of participants of consultations indicated that the major

stumbling block and apparent failure of effective reduction of deforestation and degradation is due to poor policy implementation and vested interests.

- Ministry of Finance should be involved in managing or setting up structures for management of REDD+ funding at national level and consultative councils at district level should be responsible for managing resources at local level. However, accountability measures should be put in place.
- Communities own resources as the land policy recognizes customary land rights. As such these should provide carbon rights to communities. Beneficiaries of REDD+ should reflect this constitutional right.
- Communities are aware of the negative impacts of deforestation particularly due to unsustainable production of charcoal, driven by increasing demand in urban areas and limited employment opportunities in rural areas. Communities must be involved throughout the REDD+ preparation and implementation process.
- Establish community based natural resources management institutions to ensure collective action and responsibility in reducing illegal activities/practices as well as facilitate awareness raising and training of communities in techniques such as agriculture conservation, use of improved stoves and forest plantation for energy and conservation purposes.
- REDD+ successful implementation needs coordination and leadership of MICOA as a cross-sector dialogue facilitation and policy/plans alignment entity and, MINAG engaging more in the execution of REDD+ activities including measurement, reporting and verification.
- CONDES through technical and ministers' councils should facilitate political buy-in of REDD+ across different sectors and secure commitment to introducing measures to reduce emissions due to forest conversion.
- Need to create technical capacity at sub-national level for MRV and disseminate general information on REDD+ to local stakeholders.

Although during consultation discussions included aspects of relevance to SESA, this topic was not explicitly included in this phase. During the finalization of the RPP, a special focus will be to analyse the potentials environmental and social impacts of REDD+, as well as defining and monitoring safeguards to minimize adverse impacts.

Frequent questions

- How can sustainability of REDD+ interventions be secured (prompted by experience of short term CBNRM and other initiatives)?
 - Addressing land use change needs to be a long term process with adequate investment and technical assistance. The REDD+ design models in terms of interventions to change practices, needs to analyse viability of interventions and adopt a business model that ensure their consolidation before support can cease. An exit strategy should be developed during the readiness phase, but more so in ascertaining implementation of interventions in each sub-national project.
- How will implementation of carbon enhancement be ensured when communities' plant and timber operators harvest? Will plantations be of native or exotic species? Are there species which grow fast and are more effective in capturing carbon?

- Timber harvesting presents a critical governance question. Unless illegal activities can be curbed, REDD+ will not achieve the desired goals. Zambézia province has been selected precisely for piloting information management systems, land use mapping and monitoring of impact of timber harvesting in forest degradation. What proxies will be used to assess the latter? This question will be pursued in this detailed study.
- All land users need to act according to the REDD+ strategy that the countries adopt, otherwise the net gains of one-sided good practices will nullify the reduction of emissions.
- Planting native species would be preferable; however the final choice of species should be informed by the conditions and objectives of planting besides enhancement of carbon stocks. For example, planting eucalyptus might be adequate in very poor soil and arid conditions; equally acacia sp do grow in water stressed conditions, but the former grows faster. These technical issues need further analysis to provide guidance on which species to plant.
- Can the Presidential initiative of 'one pupil, one tree and one leader one forest' be part of REDD+ efforts?
 - This initiative has built awareness about the importance of tree planting. REDD+ can contribute to guiding in species selection and plantation where trees will bring added value. For example, erosion control, stabilization of dunes, planting for energy as well as for other valuable products.
- With increase in the number of cars in the country, can REDD+ effectively reduce emissions?
 - REDD+ alone will not solve the problem. Emissions resulting from fossil fuels are large and need to be dealt with at global as well as national levels.
- Will electricity and gas be provided to rural communities to replace biomass energy?
 - Efforts to improve access to hydro electricity (construction of transmission lines from Cahora Bassa to Maputo) in the country will increase number of users. This combined with access to gas can clearly have an impact on demand for biomass energy in the urban areas. Nevertheless, complete substitution of biomass energy is unlikely. Improving management of sources of wood, efficiency of processing of charcoal as well as efficiency of use, can reduce the level of demand, hence consumption.
- How is it possible to reduce deforestation and degradation while provincial authorities continue issuing annual harvesting licenses?
 - The rampant illegal activities associated with the annual harvesting licenses, has prompted the government to amend the legislation in order to discontinue this practice. The legal instrument should be developed by end of October 2011. When approved it has to be disseminated to stakeholders and need to be included in the agenda of consultation on SESA for example.
- What mechanisms will be put in place for equitable benefit sharing?
 - Lessons on implementation of the 20% revenue and management of the government fund for district development were collected during consultations. A draft benefit sharing mechanism discussed, however this needs further reflection and development of a mechanism that will provide incentive to land users as well as being equitable and just.

- How does the carbon market operate?
 - The World Bank and the REDD+ Working Group agreed to organize a national workshop to share information on carbon market, financing of mitigation and adaptation as well as discuss the role of private sector. This was tentatively planned for October, but it may in reality take place early 2012.

One of the aims of consultation and study of incidence of drivers of deforestation was to identify potential *pilot areas* to test implementation of REDD+. The areas identified as follows:

- a) Chicualacuala-Mabalane-Guija districts in Gaza – these areas are under significant pressure as sources of supply of timber and non-timber forest products to Maputo including biomass energy; agriculture and livestock are also sources of land degradation in Chicualacuala, in particular.
- b) Moribane-Maronga-Zomba Forest Reserves complex in Manica including Tsetsera in the buffer zone of Chimanimani Transfrontier Conservation area – threat due to expansion of commercial agriculture, in particular banana plantations that have resulted in loss of significant area of Moribane forest reserves; there are various NGOs in Manica province working in securing land rights for local communities, rural development initiatives, conservation, promoting enterprise development among others. There are local institutions that can lead implementation of REDD+ initiative.
- c) Buffer Zone of the Gorongosa National Park, Gorongosa mountains, Canda and Vanduzi in Sofala with the objective of rehabilitating forest ecosystem and learning from Plan Vivo initiative the operationalization of *plus* in REDD – agroforestry systems in particular and, address the imminent threat faced by human activities in the fragile ecosystem of Gorongosa mountain.
- d) Mecuburi forest reserve and Naguema-Mussoril in Nampula – this was the largest forest reserve in the country and currently more than 50% has been converted due to cultivation of cotton and illegal timber harvesting continues to degrade the remaining area.
- e) Chipanje Chetu in Niassa – test the extent to which REDD+ can build on CBNRM initiatives, it also demonstrates the undermining of community registered rights to land. There are various external interests from international NGOs, such as FFI as well as private sector to establish REDD+ projects in this area. This may be an opportunity for communities but it equally may exacerbate existing land conflicts with large scale plantations and loss of biodiversity due to large scale monoculture plantations.
- f) Zambézia, a large area from Gilé to Derre forest reserve up to Mocuba has been selected by stakeholders to cover a variety of challenges from deforestation of protected areas, unsustainable harvesting of timber, and illegal logging among other activities. The latter is so rampant that in June an emergency meeting was held in the province and the head of provincial services sacked. Detailed recording of information management is also vital. With the support of French forest agencies, a viability analysis for establishing a REDD+ project in Gilé is also underway.

Subsequent to the consultation undertaken in 2010, MICOA, MINAG and CTV have been extending the coverage to local communities with priority to pilot areas and provinces of Manica, Inhambane and Cabo Delgado. Representatives from these provinces participated in regional meetings but were not contemplated in the provincial consultations, which gave opportunity for representatives of all districts to take part. Respect for local communities customs, rights and other aspects are becoming more prominent in the discussions. The team

integrated people who work with communities to facilitate communication and consultation through use of appropriate tools and language.

Furthermore, UEM has been conducting awareness raising and training to field level staff (including government and NGOs) in the different provinces in order to create a critical mass with knowledge to move the process forward, either through direct support to land users to change practices or through improvement of law enforcement and governance to reduce illegal activities that contribute to deforestation and degradation. This activity has just been concluded at end of July. **Detailed information on participants and issues addressed will incorporate once UEM has compiled it.**

Mozambique has been privileged to have support of the Government of Norway to conduct training of government personnel and NGOs at national and local level to understand the concepts of REDD+ and eventually to undertake further consultations.

Table 5 Interventions under component 1b

Activities	Responsibility	Location	Target
Compile the materials used so far for consultations and training to produce and printed briefs, posters, short documentaries for targeted audiences	Working Group	Maputo	Second quarter of 2012
Design REDD+ training and awareness raising materials targeted to different stakeholders at local level	Current REDD+ Working Group (until full operation of the UT-REDD+)	Maputo	Second quarter of 2012
Capacity needs assessment and opportunities to address them at national and sub-national level	Current REDD+ Working Group (until full operation of the UT-REDD+)	National	Second quarter of 2012
Conduct training of extension officers and NGOs in order to massive awareness rising and dissemination of information at all levels and involving all stakeholders.	Current REDD+ Working Group (until full operation of the UT-REDD+)	Inhambane, Gaza or Tete	Second quarter of 2012
Training and awareness raising at local level	Current REDD+ Working Group (until full operation of the UT-REDD+)	Pilot provinces as priority	From third to fourth quarter of 2012

Table 6 Budget for component 1b (To be further developed)

Table 1b: Summary of Stakeholder Consultation and Participation Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Training	Capacity needs assessment	\$	\$5	\$	\$	\$5
	Materials	\$	\$10	\$10	\$	\$20
Workshops	Travel, accommodation,...	\$	\$60	\$60	\$	\$120
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$75	\$70	\$	\$145
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

1c. Consultation and Participation Process

Standard 1c the R-PP text needs to meet for this component: Consultation and Participation Process

Ownership, transparency, and dissemination of the R-PP by the government and relevant stakeholders, and inclusiveness of effective and informed consultation and participation by relevant stakeholders, will be assessed by whether proposals and/ or documentation on the following are included in the R-PP (i) the consultation and participation process for R-PP development thus far (ii) the extent of ownership within government and national stakeholder community; (iii) the Consultation and Participation Plan for the R-PP implementation phase (iv) concerns expressed and recommendations of relevant stakeholders, and a process for their consideration, and/or expressions of their support for the R-PP; (v) and mechanisms for addressing grievances regarding consultation and participation in the REDD-plus process, and for conflict resolution and redress of grievances.

Moving forward with consultations

Mozambique adopted the principle 10 of the Rio Declaration stressing the importance of stakeholders' participation in addressing environmental challenges, as well as the need to provide sufficient and timely information for meaningful participation. The 1997 Environmental Law indicates that participation should go beyond consultation and encompass active involvement in subsequent implementation of policies, strategies and plans.

Consultation so far undertaken informed the production of this readiness plan. However the analysis of options to deliver REDD+, carbon rights, role of private sector, institutional arrangement, capacity, benefit sharing arrangement among others still need further discussion. There is also a need to conduct consultation on the social and environmental impacts and risks associated with different options and design the respective environmental management framework.

Further consultations require:

- development of materials for dissemination at local level;
 - use of community radio managed by the National Institute of Communications (ICS);
 - production of posters and pamphlets to transmit messages to illiterate people in particular;
 - promote use of documentaries, theatre and dance to build awareness on the effect of land use practices;
 - Radio Mozambique broadcasts in Portuguese and all major local languages. The use of this media can broaden significantly the dissemination of information on REDD+. Messages can be tailored to different audiences – local leaders, teachers, farmers, charcoal producers, etc..
- Produce materials targeted to key stakeholders such as private sector and local government (particularly district administrators and heads of administrative posts) and non-government institutions at local level. The district has been defined as the *Development Nucleus*. However, knowledge of policy and legal instruments as well

as adequate interpretation are often lacking and technical capacity for integrated planning and impact analysis is limited. Therefore, the involvement of these institutions is critical.

The process of consultation thus far focused first on awareness raising and stimulated reflections on issues such as:

- Land tenure, forest and carbon rights – to whom do carbon rights belong? To the state as owner of resources; to the communities since the legislation acknowledges customary rights to land and allows registration of collective rights? Can private companies and international NGOs claim rights to selling carbon?
- To further discuss the extent of *plus* in REDD, particularly the enhancement of carbon stocks.
- The need to establish an independent unit with adequate technical capacity to implement REDD+, which can bring innovations in transparency and accountability.
- Institutional arrangements at local level – what capacities exist or need to be created, decision making arrangements, sustainability.
- Whether REDD+ can achieve the reduction of emissions goal without significant investment in alternative energy sources?
- What are the REDD+ delivery models that can effectively contribute to poverty reduction? What are the costs associated with change in land use practices? What are the transaction and implementation costs?
- Forest governance and rampant illegal harvesting activities.

Consultation on different reference scenarios and implications on local development, mechanisms of assessing leakages, benefit generation and sharing mechanism, establishment of monitoring and reporting systems with participation of stakeholders.

SESA offers an analytical framework to establish the potential environmental and social impacts of REDD+ delivery model. It also provides a guide on safeguards to avoid/minimize negative impacts of REDD+ implementation.

The target groups and objective of consultation include:

- Government –
 - Continue using CONDES as a platform to communicate on REDD+ to reach institutions such as MEnegia (DNENR), MITUR (**DNAC/ANAC once this becomes operational**), MAE (INGC and DNPDR), MPD, MOPH (DNE), MMAS, MF, MIC (IPEME); to build awareness and ownership plus commitment to addressing drivers of deforestation and degradation in the different sectors.
 - MINAG – involve more the directorates of agriculture, livestock, rural extension, agrarian economy as well as department of lands.
 - MICOA – bring on board the directorates of environmental impact assessment (DNAIA) and territorial planning (DINAPOT).
 - Targeted provincial level consultations with sectors of government that affect forests – provincial CONDES and district consultative councils
 - Extension officers at provincial and national level
 - Research institutions in particular INIA (forest, soil and crops)
 - Secretariat for Food Security (SETSAN)
 - Protected areas managers
 - Parliamentarians

Objectives

- Build awareness for cross-sector mainstreaming of activities and monitoring processes that can contribute to reduction of emissions from conversion or degradation of forests.
- Build sector and cross-sector ownership of the process and outcomes of REDD+ readiness and implementation.
- Ensure that mitigation measures of REDD+ are identified, implemented and monitored.
- Provide information that will enable provincial and local institutions understanding their role in facilitating green economic growth, through good governance.
- Identify indicators for assessing REDD+ performance

REDD+ successful implementation depends on level of engagement of all sectors and targeting inclusion of REDD+ agenda in the regular ministerial meetings can be an effective way to ensure mainstreaming and ownership across sectors.

- Private sector
 - CTA at national and provincial level
 - Commercial agriculture including contract farming
 - Timber associations (Forest Concessionaires and annual license holders)
 - Mining companies (coal, heavy sands, precious minerals)
 - FEMA
 - Industrial plantation companies (Green Resources, Chikweti,..)
 - Intermediaries in commercialization of biomass energy
 - Environment and rural development consultancy firms – Rural Consult, Impacto, Austral
 - Megaprojects (SASOL, MOZAL, EDM, LAM, coal mining companies)

Objectives

- Build a mutual understanding on carbon rights and legislation to enforce protection of community rights.
- Understanding of changes in resources use practices to contribute to curbing emissions.
- Partnerships with communities to address drivers of deforestation and degradation.
- Benefit sharing mechanisms and potential contribution to funding REDD+ projects in the

Engagement of private sector equally should use the existing platforms in particular CTA and FEMA that congregates several businesses including megaprojects. However, agribusiness, timber companies, large scale plantations and charcoal producers/vendors/intermediaries will be targeted at sub-national level. Pilot provinces already highlight the areas where these detailed discussions should take place.

- Communities
 - Small holders subsistence farmers
 - Smallholder subsistence and commercial farmers
 - Medium scale commercial farmers (cashew, coconuts, citrus, banana plantations)
 - Farmers involved in agribusiness
 - Biomass energy producers for commercial purposes
 - CBNRM committees and other community based organizations
 - Local leaders – traditional
 - Enterprise associations (e.g. carpentry, bamboo,...)

Objectives:

- Understand the REDD+ design options that could contribute to curbing emissions and evaluate the tradeoffs associated with change in practices.
- Exercise FPIC in land allocation to investments and REDD+ pilot areas: what does it mean and what are implications?

Similarly to the private sector, communities are key players in implementation of sustainable land use and management practices. As such this consultation will focus on the pilot areas. However, training extension officers will ensure continued engagement and monitoring of interventions.

- Academia and research institutions
 - Public universities at national and provincial level (agriculture, forestry, economics, social sciences, law, education)
 - Private universities at national and provincial level (agriculture, forestry, economics, social sciences, law, education)
 - Technical Schools (agriculture and forestry extension, enterprise development)
 - Ministry of Education and culture (MINEC) and Ministry of Science and Technology (MST)

Objectives

- Prompt reflection on adequacy of current curriculum at various levels to respond to emerging challenges and capacity needs.
- Contribute to design of targeted short and long term training to provide the necessary skills for REDD+; for example on MRV systems.

Public lectures should be given to stakeholders as the heads of these institutions in order to sensitize them about REDD+ and ensure the appropriation of the issue through internal academic and other mechanisms.

- NGOs
 - Rights advocacy and protection – ORAM, iTC,
 - Rural Development – CLUSA, CARE, World Vision, ABIODES, AgriFUTURO, OXFAM, LUPA
 - Conservation and climate change – WWF, IUCN, FFI,
 - Peasant associations – UNAC, Zona Verde
 - Women's Forum
 - CBNRM fora at national and provincial level

Objectives

- Fostering integration of climate mitigation in rural development initiatives.
- Reflecting and sharing of lessons on agriculture technologies and alternative enterprises that can contribute to emissions' reduction and co-benefits.
- Capitalization on the existing extension network to disseminate information on REDD+ and build awareness of land users on the impact of their practices.

Understanding of REDD+ concept, process, options by these organization is fundamental as the multiplier effect of their knowledge is immense. They are the main intermediary that enables many communities to access information and technologies to improve land productivity and efficient use of resources. To rationalize resources, priority shall be given in the pilot provinces. Nevertheless, most operate in various provinces, hence the potential benefit.

Communication outreach will explore the use of various means to inform different stakeholders:

- Policy/Briefing notes – for policy makers, corporate and academia;
- Public lectures - for policy makers, corporate and academia;
- Posters and large visual materials in Portuguese and local languages – for general public and local communities;
- Liaise with the National Institute for Development of Education (INDE) to produce basic materials on climate change including mitigation;
- Radio – national and provincial level (e.g. Linha Directa inviting different stakeholders) this is one of the spaces that key national issues are discussed on

Saturday and most people tune including researchers, politicians, business people and the public in general;

- Use print media to reach general public;
- Local Radio station including community radio run by the Institute for Social Communication (ICS) – distribute materials disseminate and briefing notes to local radio stations transmitting in the local language - **communities**;
- Television programmes – **broadcast in prime time can reach various stakeholders**;
- Documentaries – communities and education institutions, targeted to key policy fora
- Theatre, dance and music - **communities**;
- Public debates – **useful for gauging positions on different actors on REDD+ interventions and challenges**;
- Webpage to deposit information regarding the process for wider access;
- Publish technical materials produced in the process;
- Exchange visits, participation in international events – **for working group members and UT-REDD+**.

While previous consultations have strived to bring together stakeholders from different sectors to the same gathering, there may be merit in disaggregating the target groups in order to collect detailed views on the R-PP and implementation plan. However, the viability of this approach needs to take into account the potential gains and costs.

Table 7 Further consultation schedule

Activities –	Responsibility	Location	Target
Institutional arrangements for cross sector coordination and vertical articulation	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Maputo	Second quarter of 2012
Awareness raising of CONDES on REDD+ and possible integration in sector plans	MICOA and MINAG	Maputo	2011-2012
Free, prior and informed consent – on what, when, by whom and strategies	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas and national consultation	Fourth quarter 2011-2012
Rights to environmental services in particular land, forests and carbon credits	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas and national consultation	Fourth quarter 2011-2012
Assess forest sector governance: how to address illegal logging, inclusiveness and transparency of REDD+ projects; accountability, information disclosure	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Maputo, Zambézia, Sofala, Cabo Delgado, Nampula, Gaza and national consultation	Fourth quarter 2011-2013
Identify REDD+ delivery models and determine their viability (technical, financial and environmental)	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas	Fourth quarter 2012
Determine tradeoffs between different delivery models and REDD+ interventions	REDD+ Working group for UT-REDD+ at national level	Pilot areas and national consultation	Fourth quarter 2012

	UT-REDD+ at sub-national level		
Evaluate transaction and implementation costs of REDD+ delivery	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas and national level consultation	2013
Identify performance indicators for emissions reductions(proxy), biodiversity and socio-economic impacts	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas	Fourth quarter 2012
Define equitable benefit sharing mechanisms	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas and national consultation	Fourth quarter 2012
Role of private sector in REDD+ implementation	REDD+ Working group for UT-REDD+ at national level	National consultation in Cabo Delgado/Nampula	Fourth quarter 2011-2012
Curriculum of agriculture and forestry in the technical schools and universities	UEM for UT-REDD+ at national level	National consultation in Manica (IAC)	Fourth quarter 2012
Design participatory MRV systems	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	Pilot areas, sub-national and national level	Fourth quarter 2012
Evaluation of existing conflict management mechanisms at community and institutional level and design a REDD+ conflict management guide	REDD+ Working group for UT-REDD+ at national level	Pilot areas and sub-national consultation	Fourth quarter 2012
Strategic Environmental and Social Assessment and Environmental Management Framework: what issues and mitigation measures	REDD+ Working group for UT-REDD+ at national level UT-REDD+ at sub-national level	National	Fourth quarter 2012

Table 8 Budget for component 1c (To be developed)

Table 1c: Summary of Consultation and Participation Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Institutional arrangements		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Legal framework	Rights, FPIC, benefit sharing	\$	\$	\$	\$	\$
	SESA, conflict management	\$	\$	\$	\$	\$
Curriculum	Technical schools					
	Universities					
Economics	Opportunity costs	\$	\$	\$	\$	\$
	Transaction and implementation costs	\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

Component 2: Prepare the REDD-plus Strategy

2a. Assessment of Land Use, Forest Law, Policy and Governance

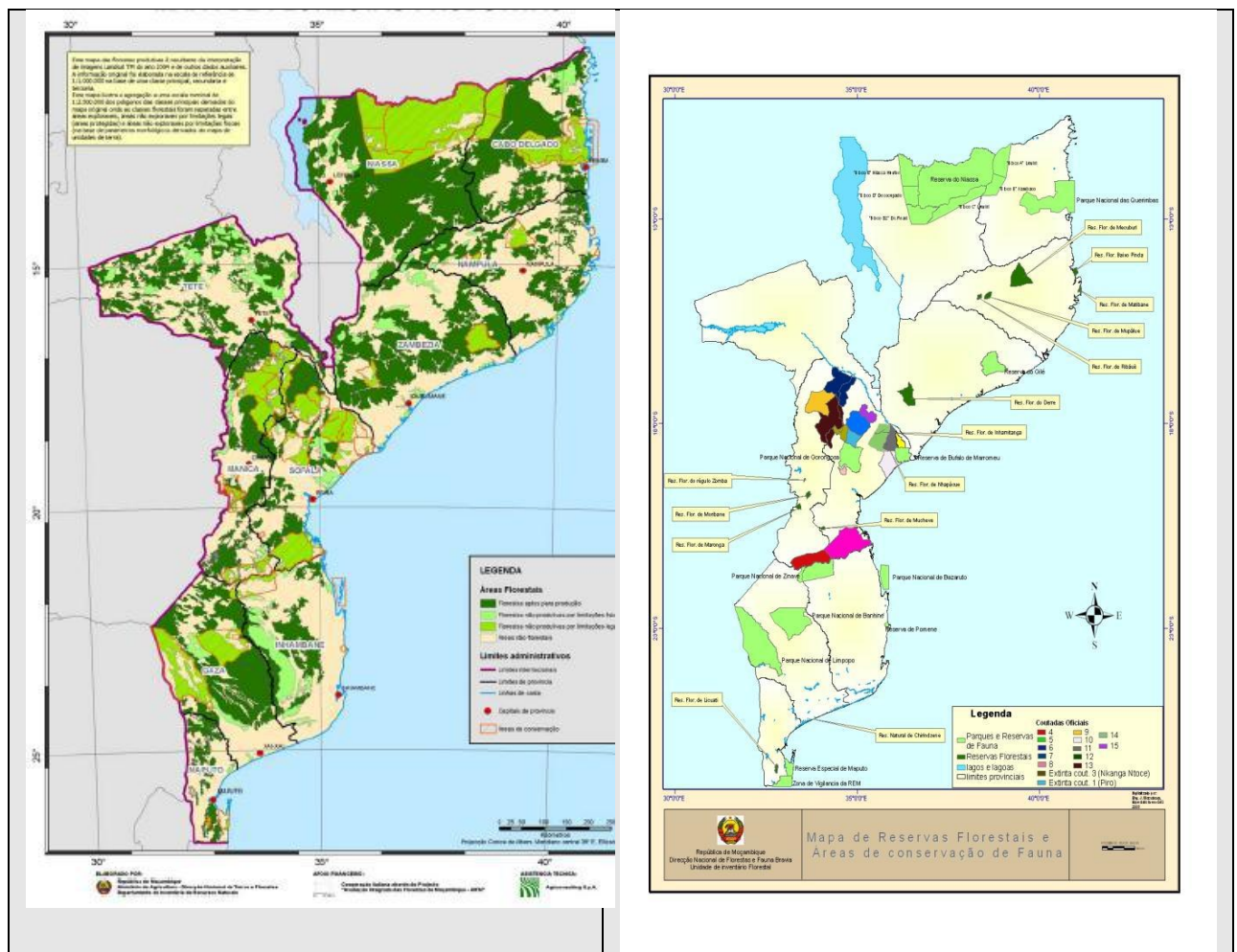
Country's resources

The most recent national inventory (Marzoli, 2007) indicates that forests and other wooded lands cover 70% of the country or 54.8 million ha. Miombo woodlands cover 2/3 of the forest land in the country, and mopane woodlands constitute the second largest forest cover. There are 40.1 million ha (51% of the country land mass) of forests, of which 26.9 million are productive forests (high-value timber), while 13 million ha are found in protected or conservation areas. This including wildlife protected areas cover 16% of protected areas. In addition to these forest areas there are 14.7 million ha of thicket, woodlands and forests in areas of shifting agriculture. Mangrove vegetation is about 300 000 ha. The average growth of natural forests in Mozambique is very small, ranging between 0.5 and 1.5 m³/ha/year (ibid). The provinces of Niassa, Zambézia, Tete and Cabo Delgado have the largest area of productive forests of respectively 6, 4.1, 3.3 and 3.2 million ha, respectively.

The *Policy and Strategy of Forests and Wildlife* (MAP 1997) distinguishes three categories of forest, reflecting their richness in biodiversity and commercial value as well as giving an indication of who has access and control over the resources.

- Protected forests, including forest cover, comprise 16% of the national territory and are legally under state management. There is increase delegation of management to private sector, and international conservation organizations have long history of contributing to maintenance of these areas.
- Productive forests located mostly in the central and northern parts of the country are generally allocated to private operators under long term concessions or annual licenses. But local communities are also eligible.
- Multiple-use forests generally subject to competitive uses and users. A substantial part of the rural population lives in this area.
- The state owns all resources in the country but it has the authority to allocate use and improvement rights to different users. This includes the right of the state to hold the resources in trust for the people in order to protect the services to society at large (such as biodiversity, water and wetlands maintenance, and other functions).

Figure 8 Forest cover and categories - including protected areas and forest reserves



Land use

a) Logging

There are **179 (2011)** timber concessionaires **up from 167 in 2009** with contract spanning over 20 years. 600 annual operators have licenses to explore forest resources in the country. 5-6 million ha of forests have been adjudicated for long term exploitation while the areas harvested by small operators vary annually.

Table 9 Trend of resources harvesting under concession and simple license regimes

Adjudication of forest concessions (CF) 1998-2009					Adjudication of annual licenses (LS) 2007-2009			
Province	*2007	2008	2009	Total	2007	2008	2009	TC (%)
Cabo Delgado	25	6	2	33	58	65	45	-31
Inhambane	5	7	4	16	88	77	58	-25
Gaza	3	0	0	3	60	66	61	-8
Manica	9	1	0	10	50	46	44	-4
Nampula	15	3	1	19	94	61	53	-13
Niassa	4	2	1	7	36	19	12	-37
Sofala	27	0	2	29	102	121	53	-56
Tete	6	0	0	6	44	54	68	26
Zambézia	43	0	1	44	99	98	85	-13
Maputo					6	9	0	-100
TOTAL	137	19	11	167				
With MP	(68)	(12)	(11)	(92)	637	616	479	-22

*cumulative number, 1998-2007; number in () concessions with management plans (MP)

Forest communities are eligible to 20% share of revenue from royalties paid by timber operators since 2005. By 2009, about 1102 were identified as eligible, but only 631 did receive the payment. Around USD 2.7 million (equivalent) were disbursed to communities from 2005 to 2009 and in the latter about USD 600 thousand.

b) Agriculture

Agriculture is key to Mozambique's economy with 70per cent of 21 million people living in rural areas depending on farming and forest products for their livelihoods. There are 36 million ha of arable land of which 3.3 million have potential for irrigation. 5.2 million ha have been cultivated of which 1.5 million to commercial farming. The remaining is cultivated by 3.7 million smallholders, a quarter of who are headed by women.

The smallholders generally cultivate subsistence crops such as maize, cassava, sweet potato, sorghum, peanuts and rice. In the centre and north of the country smallholders are also engaged in cash crops such as cotton, tobacco, sesame, sunflower and cashew nuts. Contract farming is a common arrangement. Smallholders also engage in livestock farming, mainly in the arid land of Gaza, Inhambane and Tete provinces.

Additionally, 400 commercial farmers produce sugar cane (for sugar and biofuels), sorghum, tobacco, cotton, tea, citrus and livestock.

Demand of land for plantation of sweet sorghum and sugar cane (for biofuels) included an expression of interest from investors amounting to about 2 million ha. However, only 12% has been allocated. A national zoning conducted as response to the pressure showed that 7 million ha of land are available for this purpose, predominantly in the provinces of Inhambane, Niassa and Zambézia with over 1 million ha each.

In addition, recently Brazilian farmers were given 6 million ha to grow soya in the centre and north of the country. The reason is the restrictions on forest conversion in Brazil. Certainly forests will be converted for production of monoculture. International displacement of activities from some countries to others will nullify the potential mitigation gains that REDD+ could bring.

c) Community based natural resources management

About 70 communities' registered land and forest rights are implementing participatory natural resources management initiatives, since mid 1990's. This is part of about 300 communities delimited and registered land rights which cover about 5 million ha. 271 registered community land has been digitized in the cadastral atlas. In 2009 31 communities were delimited with over 1.44 million ha.

There are also several communities organized to address sustainable use of forests and livelihoods supported by iTC and MCA in six provinces; other have extension support to improve productivity of agriculture for local consumption and also for markets.

d) Mining

Mining is increasingly important activity in the country. This includes industrial extraction and transportation of gas, prospecting for oil, heavy sands and gold, diamonds and other precious minerals. The number of artisan miners is increasing in Manica, Zambézia, Niassa and Nampula. Immigrant often dominates this small scale but lucrative business with connivance of authorities.

e) Infrastructure and energy

Urban settlements have been expanding horizontally, often without following any physical planning, hence causing further deforestation particularly in the large cities such as Maputo, Nampula and Beira.

Expansion of road network, construction of bridges along Rovuma and Zambeze rivers is very important for the economy, but also creates opportunities for easy access to forests as well as establishment of new settlements and consequent clearing of forests.

The urban population is largely dependent on biomass energy, which results in extraction of about 23 million m³ per annum for domestic consumption and for industries such as bakeries and tobacco curing.

Table 10 Licensed volume (V.Lic) in 2008-2009 for concession (CF) and annual licenses (LS)

Província	V. Licenciado (m ³) 2009				
	V. Lic (m ³) 2008	CF	LS	Total	CAA* (10 ³ m ³)
Maputo	212	0	0	0	(10.1 -10.2)
Gaza	1297	0	2.161	2.161	(62 – 113.9)
Inhambane	12.019	1.931	10.617	12.548	(28.2 – 33.3)
Sofala	54.591	26.236	19.309	45.545	(53.3 – 81.2)
Manica	12.945	1.741	12.949	14.690	(49.0 – 64.2)
Tete	11.652	250	23.929	24.179	(31.9 – 48)
Zambézia	32.003	18.046	22.345	40.391	(121.6 – 91.2)
Nampula	11.018	1.890	5.161	7.051	(42.6 – 57.1)
C. Delgado	30.351	7.174	8.794	15.968	(84.1 – 120.4)
Niassa	693	-	420	420	(31.5 – 21.2)
TOTAL	166.781	57.268	105.686	162.954	(515.7 – 640.5)

*CAA, annual allowable cut, DNRF, 2010

Deforestation rate and forest degradation

Deforestation was 0.21% per annum between 1972 and 1990 (Saket, 1994) and 0.58% from 1990 to 2002 (Marzoli, 2007). Increase of deforestation rates reflects the effects of civil war that displaced many people from rural areas and subsequent clearing of new agriculture land as well as settlements after the ceasefire in 1992. The average annual loss of forests amounts to 219 thousand ha. Maputo and Nampula have the highest deforestation rates reaching more than 1% per year. Maputo import wood from other provinces to meet the demand.

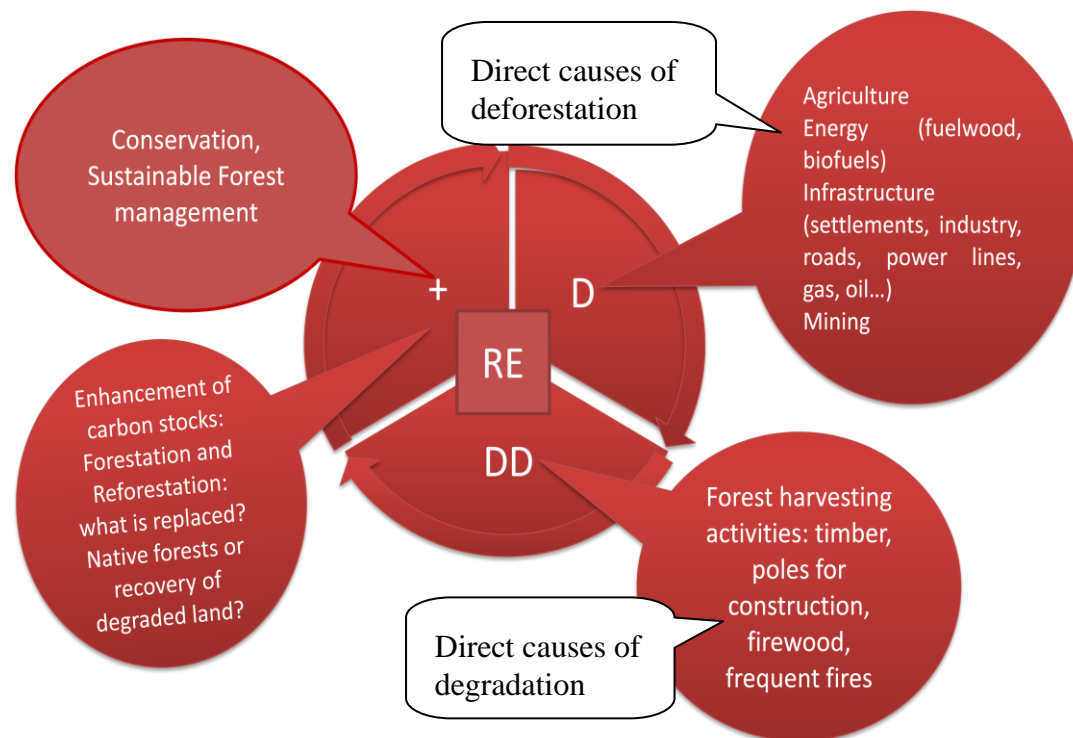
Table 11 Estimates of deforestation rate 1990-2002 (Marzoli 2007)

Province	Forests and wooded lands 1990 ('000 ha)	Forests and wooded lands 2002 ('000 ha)	Conversion of forests to other land uses ('000 ha)	Annual change of forest areas ('000 ha)	Deforestation rate 1990-2002 (%)
Cabo Delgado	5322	4989	28	25	0.54
Gaza	5182	5027	13	13	0.33
Inhambane	4585	4424	13	11	0.52
Manica	4340	4005	28	23	0.75
Maputo	1280	1078	17	16	1.67
Nampula	3958	3509	37	33	1.18
Niassa	9635	9379	21	21	0.22
Sofala	4430	4161	22	20	0.63
Tete	7376	7025	29	27	0.64
Zambézia	5819	5356	39	31	0.71
Total	51926	48952	248	219	0.58

Deforestation is mainly a consequence of extra-forest sector activities, while degradation and *plus* depend on the extent to which enforcement of legislation within the forest sector and efficient harvesting technologies can be strengthened. While command-and-control is necessary, the limited capacity in terms of number and qualifications of personnel at all levels has demonstrated the need for more innovative approaches. Land users need to take responsibility through exploration of market mechanisms such as eco-labeling to get a premium from conscientious practices. On the other hand, participatory monitoring of forest activities can reduce transaction costs of law enforcement and improve governance.

There are few studies on forest degradation. Analysis at sub-national level was conducted in Manica province and the Beira corridor in 2004. The results show that degradation is rampant, and in fact, it is more likely to have larger impact on carbon stocks than deforestation. A gradient process of forest conversion starts, for example, with annual licenses extracting high value timber, followed by extraction of construction poles and charcoal production. Significant transformations happen up to the point of reaching less than 10% forest cover and 5m tree high. The speed at which this happens is influenced by population growth and infrastructure.

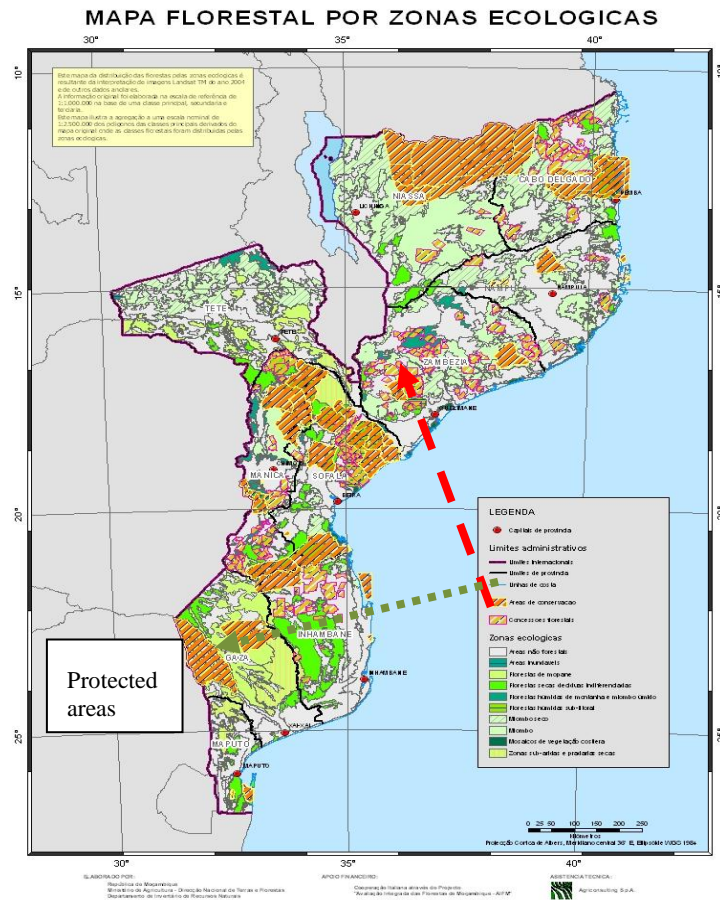
Figure 9 Drivers of Deforestation and forest degradation



a) Harvesting of timber

The map shows distribution of concessions. The propensity of these areas to deforestation and degradation is high due to limited capacity to enforce the law and the fact that companies are driven by profits other than sustainability of resources. As previously noted there is a large number of annual license operators who operate in a form of shifting harvesting, as they have hardly any sustainable management obligations. There is need to compile information on simple licenses over the year and to digitize the maps in order to establish where extraction of timber may be associated with degradation of forests.

Figure 10 Timber concessions



b) Biomass energy

A study conducted in 2008 using FAO methodology WISDOM (Woodfuel Integrated Supply/Demand Overview Mapping) indicates that the total consumption does not surpass the annual growth of biomass at national level. At sub-national level there are some critical areas. Maputo city and Matola (Maputo province) have large urban population relying on biomass energy. The productivity of forests in these areas is low, therefore registering a deficit of. Areas in the vicinity of these cities have very high risk of deforestation and degradation while districts in the South of Gaza province have medium risk. These are currently the main sources of fuelwood to Maputo. Distance and accessibility are determining factors of pressure on resources.

Table 12 Capacity of forest to meet demand for biomass energy

Province	Total Biomass stock	Non-industrial growth	Available Physically accessible growth	Commercial consumption	Local balance	Liberal commercial balance	Conservative commercial balance
Niassa	308447	10607	6977	749	6228	3757	3600
Cabo Delgado	178505	6502	4851	1079	3772	2087	1935
Nampula	169033	6868	5885	2755	3131	2226	2095
Zambézia	248529	9745	7862	2526	5336	3988	3635
Tete	169455	6876	4188	1114	3074	1921	1425
Manica	144755	5843	4594	937	3657	1997	1885
Sofala	126496	4866	3753	1184	2569	973	889
Inhambane	125461	5127	4294	890	3405	2326	1697
Gaza	112708	4345	3382	863	2519	977	821
Maputo	31464	1267	1124	924	201	-204	-263
Provincia							
Maputo Cidade	238	11	11	982	-971	-971	-971
Total	1615091	62057	46921	14003	32921	19077	16748

This table illustrates the growing demand for charcoal and poles. Most of the demand is met beyond the official licensing regime.

Table 13 Trend of licenses for biomass energy and construction materials, 2007-2009

Product	Unit	Nº Licenses 2009	Licensed volume			TC (%)
			2007	2008	2009	
Charcoal	bags	1.473	781.566	996.066	1.345.007	35
Firewood	Esteres	177	46.952	46.486	37.326	-20
Poles	Esteres	168	8.849	7.734	11.188	45
Bamboo	Esteres	110	12.352	7.246	5.241	-28

The main stakeholders involved in this activity include rural households as the main producers of charcoal and poles. Generally, these do not have licenses, except in cases where CBNRM initiatives are being implemented. This activity is important source of revenue for most rural households. A significant number of intermediaries (annual licenses) transport these products to the market in urban areas. A large number of informal retailers sell to the final consumer. Charcoal and poles besides being important for sustaining lives of low income households in the urban areas, it also provides employment opportunity for a number of urban dwellers.

c) Tree planting

MINAG conducted a zoning of areas suitable for commercial plantations as shown in the table below, however the 2009 Reforestation Action Plan establish the land allocation target of about 3 million ha. While large areas have been allocated in Niassa Zambézia and Nampula coincidently with large areas of native forests are also holding significant aptitude for plantation.

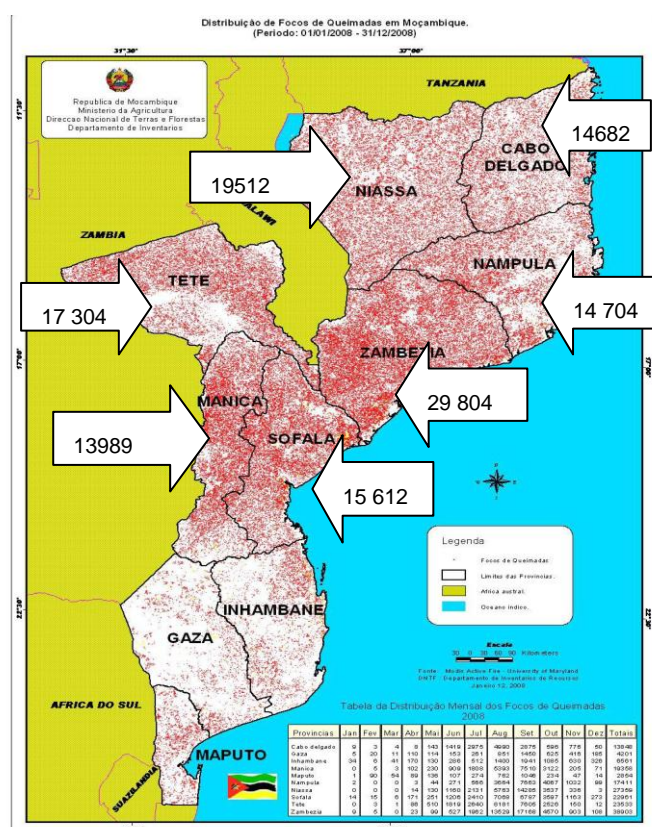
Table 14 Aptitude for commercial forest plantations

Province	Planted area					Potential
	2007	2008	2009	Total	%	Zoning for plantations
	ha	ha	ha	ha		MINAG, 2006 (ha)
Maputo	110	98	198	406	1.3	
Gaza	19	12	18	49	0.2	
Inhambane	7	93	65	165	0.5	
Sofala	0	516	819	1335	4.4	120,133
Manica	710	1306	2086	4102	13.6	815,047
Tete	40	19	680	739	2.4	
Zambézia	58	1186	2666	3910	12.9	2,127,231
Nampula	0	62	86	148	0.5	1,504,777
Cabo delgado	290	203	143	636	2.1	
Niassa	5040	6404	7307	18751	62.0	2,472,054
Total	6274	9899	14068	30241	100	7,000,000

d) Fire

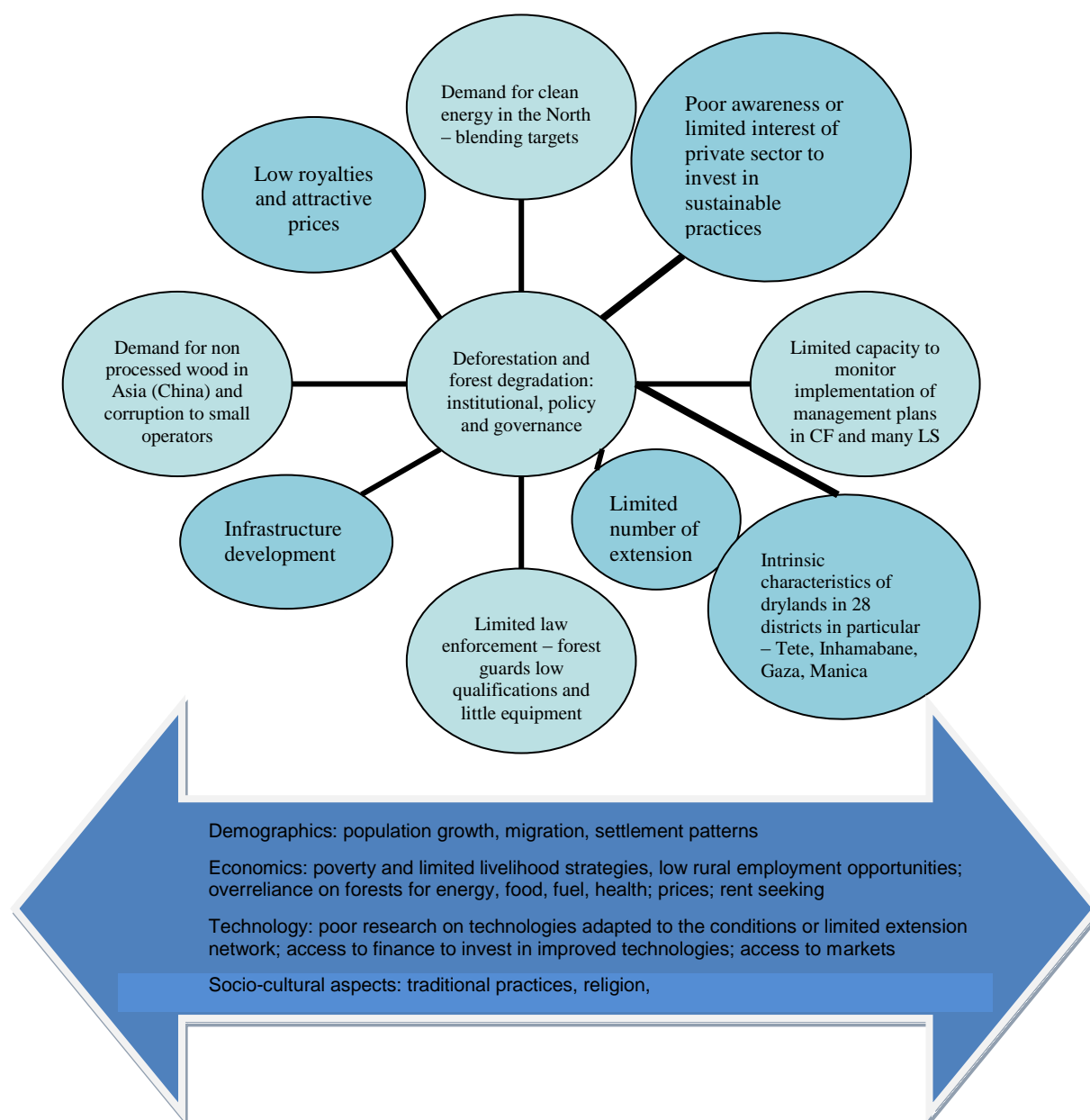
This is one of the principal causes of forest degradation in the country. Land clearing for agriculture, for hunting, collection of honey using traditional practices is some of the causes of numerous fires that affected large areas in the centre of Mozambique in 2008.

Figure 11 Occurrence of fire in Mozambique and most affected provinces (2009)



Fire registration in 2009 indicated that the incidence of fire is observed between August (23812) and October (29019) with the peak in September with over 50 thousand fires. This coincides with the typical period of land preparation for agriculture.

Figure 12 Indirect drivers of deforestation and degradation



There is an ongoing zoning of the agriculture sector and development of land use information management systems at national level. This is being undertaken by DNTF. Details on priority areas are discussed in Component 4.

Table 15 Causes of change of forest cover in provinces in consultations and data collection

Causes of deforestation and degradation	Areas of incidence and other information
Maputo province	
<ul style="list-style-type: none"> Charcoal production Shifting agriculture Rapid (horizontal) expansion of Maputo and Matola urban areas Biofuels 	<p>Affected areas</p> <ul style="list-style-type: none"> Matutuine, Namaacha, Moamba Marracuene, Matola, Boane Manhica and Moamba <p>Mitigation measures</p> <ul style="list-style-type: none"> Zoning and urban planning

	<ul style="list-style-type: none"> Alternative sources of energy (gas, electricity) accessible Improved stoves
Gaza province	
<ul style="list-style-type: none"> Harvesting of poles and timber Production of firewood for domestic consumption in Xai-Xai and Maputo Plantation of sugar cane for production of biofuels (30,000 ha PROCANA investment later abandoned, communities continue deprived from use); Construction of gas pipeline and railway Limpopo; New settlements Uncontrolled fires and illegal hunting 	<p>Areas affected</p> <ul style="list-style-type: none"> Chibuto, Malehice, Chipadja, Chigubo -Canhissane and Solane, Guija, Naladze, and along Guija-Chibuto and Guija-Mabalane railways Bilene, Macuane Massingir <p>Forest types:</p> <p>Cimbirre and Mopane</p> <p>Interventions</p> <ul style="list-style-type: none"> Strengthen law enforcement Promote conservation agriculture Use of improved/efficient charcoal stoves Forest plantation for energy
Tete province	
<ul style="list-style-type: none"> Uncontrolled fires associated with agriculture (cotton) and illegal hunting Charcoal production Population settlements Extension of electricity grid/transportation lines Illegal logging Overstocking and soil erosion Mining (coal) 	<p>Affected areas:</p> <p>Tsangano, Changarra, Angonia, Mutarara, Moatize, Tete</p> <p>Interventions</p> <ul style="list-style-type: none"> Awareness raising on environment and sustainable practices Law enforcement to reduce illegal logging Monitor impact of mining on soil and vegetation Reforestation
Nampula province	
<ul style="list-style-type: none"> Shifting cultivation Commercial agriculture (cotton, tobacco, and food crops – peanut, sesame, cashewnut,..) Illegal hunting and use of fire Timber and poles harvesting Charcoal production Uncontrolled fires Forest degradation (Moma and Morrupula) due to illegal artisanal mining Forest degradation (Moma and Morrupula) due to mining of heavy sands and other resources without implementing mitigation measures for the impacts Rapid population growth Concentration of illegal migrants from Africa and Asia Harvesting of mangrove in Moma and Mossuril 	<p>Affected areas:</p> <p>Mossuril, Moma, Murrupula, Muecate, Meconta, Nampula-Rapale, Murrupula and Mecuburi</p> <p>Interventions:</p> <ul style="list-style-type: none"> Strengthen law enforcement including engagement of community guards, Incentives, equipment and training of forest guards, Promote alternative sources of income Sustainable agriculture
Zambézia province	
<ul style="list-style-type: none"> Timber harvesting Harvesting of poles and bamboo for construction Charcoal production Mining 	<p>Affected areas</p> <p>Mining, agriculture and forest harvesting</p> <ul style="list-style-type: none"> Mocuba, Maganja da costa, Nicuadala, Namacurra <p>Logging</p>

<ul style="list-style-type: none"> • Commercial and subsistence agriculture (cotton, fruits, coconuts, tea,) • Livestock rearing • Illegal logging 	<ul style="list-style-type: none"> • Gilé, Morrumbala, Mopeia, Ile, Lugela, Pebane <p>Interventions:</p> <ul style="list-style-type: none"> • Zoning, • Delimitation of community areas • Intensive and semi-intensive agriculture and livestock rearing • Stop issuing annual logging licenses • Build more resistant houses • Introduce charcoal saving stoves
Niassa province	
<ul style="list-style-type: none"> • Agriculture (cotton and tobacco) • Harvesting of poles • Forest harvestong • Use of fire in agriculture practices • Forest plantations with substitution of natural forests • Richness in forest resources, high aptitude for agriculture, abundant wildlife, accessible, proximity to urban areas 	<p><i>Affected areas:</i></p> <ul style="list-style-type: none"> • Mavago, Sanga, Muembe • Lichinga Plains <p><i>Interventions:</i></p> <ul style="list-style-type: none"> • Promote beekeeping, aquaculture, • Intensive agriculture and livestock rearing • Sustainable agriculture • Plantations according to zoning • Improved stoves in rural areas • Promote use of gas and hydroelectricity in urban areas • Training and equipment of forest guards

Addressing the above listed drivers requires development of indicators (economic, social and environmental) for monitoring: such as criteria to establish reference level at sub-national and national levels, definition of national parameters for *Tier 2*, criteria to establish leakages at sub-national and national scales, sampling procedure, time frame for monitoring and reporting, data generation, management and access.

How does the policy shape the way resources are used and potential for REDD+?

a) International Conventions

Mozambique's government approved the *National Biodiversity Strategy and Action Plan* (NBSAP) (MICOA 2003) for the Convention on Biological Diversity (CBD). One of the key provisions of the NBSAP is equitable access and benefit-sharing and also advocates for introducing environmental accounting to complement the conventional National Accounts Systems to assess the extent to which natural capital is not being eroded in the process of economic growth. Therefore, establishing indicators and assessment of REDD+ co-benefits can contribute to informing national accounts regarding medium and long term loss of natural capital.

The United Nations Convention to Combat Desertification (UNCCD) emphasizes the introduction of measures for sustainable land management. The strategy and action plan for implementing this convention is yet to be approved. There are prevailing unsustainable agriculture practices including use of fire and shifting cultivation by smallholder. Large scale farming companies often use contract farming in tobacco and cotton production resulting in clearing large areas of land without conforming with sustainable land and environmental management practices. Limited access to technologies, finances and markets affects the ability of smallholders to invest in better land use options.

The main thrust of the United Nations Framework Convention on Climate Change (UNFCCC) and the *National Action Plan for Adaptation to Climate Change* (NAPA) (MICOA 2007) approved in 2007 is the stabilization of emissions of greenhouse gases – with the Kyoto Protocol and the Clean Development Mechanism (CDM) as implementation tools. However, further mitigation of climate change is given impetus with acknowledgement that reduction of deforestation and forest degradation, conservation, sustainable forest management, and enhancement of carbon stocks (REDD+) have potential to curb approximately 20% of global emissions. It is this context that Mozambique is seeking to develop a preparedness plan

including capitalizing or developing new policies and legal instruments that will enable its implementation.

Overall, the Rio Conventions influenced significantly the policy and legislation developed in 1990's to govern use of land resources in Mozambique.

b) ***The sector policies underpinning potential implementation of REDD+***

Nhantumbo and Izidine (2009) conducted a review of the provisions of policies that are critical to paving the way for the security of rights and motivation for land users to invest in long term land use practices: lands, forestry and environment.

- 1995 *Policy on Rights to Use and Improve Land* and the respective legislation and regulations of 1997 and 1999 (MAP 1995a; GoM 1997a; 1998).
- 1997 *Policy and Strategy of Forests and Wildlife Policy* (MAP 1997) and subsequent law and regulations of 1999 and 2002 respectively (GoM 1999; 2002).
- 1997 Environmental Law and subsequent Regulation
 - Decree n°45/2004 of 29 September on EIA process;
 - Decree n°129/2006 of 19 July on public participations;
 - Decree n°32/2003 of 12 August on Environmental Auditing.
 - Decree n°18/2004 of 2 June on Environmental Quality Standards;

The policy review was validated during the consultation process for the design of the R-PP.

The current forest and land legislation contains important provision for implementation of REDD+. Carbon rights should be enshrined in the existing land and forest rights. The devolution of rights was fundamental to the implementation of CBNRM. REDD+ implementation is an opportunity for valuing not only the products, but also the services resulting from sustainable management, and to compensate communities for that endeavor. This provides a key platform for engagement of smallholders, in particular.

The legislation also includes stringent requirements for commercial timber harvesting to be based on resources assessment, design and implementation of management plans as well as promoting value addition in the country. The current forest legislation contains two harvesting regimes, one under long term concession and another under annual licenses. The latter is only eligible for nationals or small scale operators extracting maximum of 500m³ per annum. Therefore, operators migrate (*shifting timber harvesting*) from one area to the other harvesting timber without any commitment to manage the resource. Therefore, the government intends to gradually replace this regime with longer term commitment to sustainable use and management of forests. Strong law enforcement capacity is likely to reduce illegal practices, hence serving the objectives of REDD+.

Figure 13 Policy provisions that will impact on implementation of REDD+

<p>1995 <i>Land Policy</i>; 1997 <i>Land Law</i> and 1998 <i>Regulation</i></p>	<ul style="list-style-type: none"> • Customary rules. • Gender equity: women can access land, have formal rights, and give testimony to confirm occupation. • Rights of occupation (more than 10 years of residence) acknowledged irrespective of registration. • Collective land-use and improvement rights with 3-9 signatories of DUAT (Certificate of Land Use and Improvement Rights). • Community consultations for land allocation to third parties (private sector). • Community can create socio-cultural protected areas: sacred areas.
<p>1997 <i>Forestry and Wildlife Policy</i>; 1999 <i>Law</i>; 2002 <i>Regulation</i></p>	<ul style="list-style-type: none"> • Economic, social and ecological objectives: forests should contribute economic growth; participation of communities in forest management and access to benefits; sustainable use and management of resources, including conservation and maintenance of ecological processes. • CBNRM to promote sustainable use and management of resources and access to benefits by communities. • Private sector and community can equally access productive forest (concessions and under annual license regime) • Communities can create customary protected areas - sacred forests. • Community consultation prior to forest allocation (minutes attached to the application). • 20% of revenues from exploitation of forests should be given back to communities. • 50% of the fine for contravening a forest regulation is given back to the guard (official or community scout).
<p>1997 <i>Environmental Law</i>; 2007 <i>National Action Plan for Adaptation to Climate Change</i></p>	<ul style="list-style-type: none"> • Environmental Impact Assessment (EIA) and respective Management Plans are mandatory to mitigate impacts of investments. • Public participation during EIA development and implementation. • Sustainable use of natural resources is central to all economic activities. • Need to value indigenous knowledge in resources management. • Participation of community members in environmental management. • Local contribution to addressing global environmental challenges. • Priority actions to address climate change (vulnerability, mitigation and adaptations). • Platform for inter-institutional coordination.
<p>2009 <i>Action Plan for Reforestation</i></p>	<ul style="list-style-type: none"> • Establishment of industrial plantations (North of the country) • Plantations for energy and conservation (especially in the south of the country) • Community Forests for energy or for conservation

The 2009 *Action Plan for Reforestation* also creates opportunities for enhancement of carbon stocks. A zoning of the country was conducted indicating that about 7 million ha were available for tree planting; nevertheless, assessment of carbon balance and loss of biodiversity is necessary to establish the extent to which there will be positive contributions to the REDD+ goals.

One of the key questions that the country has to answer refers to the identification of activities that can be eligible for performance based payments for enhancing carbon stocks. While country wide consultations, suggested that plantations for rehabilitation of degraded areas, or for supplying energy as well as agroforestry systems to enhance land productivity should be eligible, the debate was not conclusive as regards large scale commercial plantations that not only will replace natural forests and reduce biodiversity but are also claiming potential financing under REDD+.

The *Policy and Law of Territorial Planning (2009)* provides an opportunity to organize space and land use according to its potential. Currently, there are discrepancies between land potential and allocation to different economic activities. Preliminary data collection for the development of the readiness process demonstrates the existing land use conflicts, for example, between production forests and conservation areas with mining, and agriculture land with horizontal growth of urban areas.

The *Conservation Policy* promotes conservation of biological diversity and promotion of tourism in the national parks, game reserves and hunting areas. However, in almost all protected areas in the country there are inhabitants inside and outside. This brings challenges to effectiveness of protected areas management as well as on livelihoods of the communities.

The SWOT analysis provides further insights on the extent to which the existing legislation is conducive to implementation of REDD+.

Table 16 SWOT analysis of the key policies and legislation. **Source: Nhantumbo and Izidine (2009).**

	Land policy and legislation (MAP 1995a, GoM 1997a; GoM 1998; GoM 2003; GoM 2007a; GoM 2007b)	Forestry and wildlife legislation (GoM 1999; 2002), MADER (2003), MINAG and MF (2005)	Environmental legislation (GoM 1997b)
Strengths	<ol style="list-style-type: none"> 1. Acknowledgement of community rights to resources and their use according to customary norms. 2. Acknowledgement of indigenous knowledge in the management of resources. 3. Acknowledgement of the role of local communities, the private sector, and civil society organisations in the management of natural resources. 4. Promotes sustainable management of natural resources (including agrarian, energy, water, fisheries and other extra-sectoral policies). 5. REDD+ can be implemented using provisions of the current legislation. 		
Weaknesses	<ul style="list-style-type: none"> • Not all rights have been identified and ascertained (in particular the rights to exploit services such as carbon sequestration); the contribution of forests to watershed maintenance (for subsequent supply of drinking water, irrigation water, and for power generation) needs assessing. • Differentiated application of the land law (poor consultation or simply ignored by some investors). • Land administration capacity is still weak especially at local level. 	<ul style="list-style-type: none"> • Poor coordination of the national, provincial, district and local authorities as regards management of natural resources. • Limited capacity for enforcement of sustainable-use practices in productive and protected forest areas. • Limited capacity, as yet, for formulation of REDD-related projects. • The community should have access to productive forest areas. 	<ul style="list-style-type: none"> • Knowledge of environmental law at local level still very poor. • Poor institutional capacity, particularly at local level.

<p style="text-align: center;">Opportunities</p>	<ul style="list-style-type: none"> • Approval of the <i>Policy and Law on Territorial Planning</i> (GoM 2007a). • Overall public reform – ‘one-stop shop’ for provision of information on the process of issuing land-use certificates and investment licensees. • Adoption of the anti-corruption policy and strategy. • <i>Law of Local Government</i> (GoM 2007b) providing greater legitimacy and participation of local authorities in decision-making processes, including use of natural resources. • Development of district development plans including zoning; inclusion of natural resources management in the decentralized planning process led by MICOA. 	<ul style="list-style-type: none"> • Existence of various resources for REDD support. • The experience of payment of 20% royalties back to the communities can be used as entry point, and provide positive lessons for REDD payments. • The existence of local CBNRM institutions and provision for natural resources management councils (known as COGEPs) integrating local communities, local authorities, NGOs and the private sector can enable negotiation of rights to land, forest and to carbon payments. • 68 experiences in community participation have provided lessons on enterprise development, generation of income, and its equitable sharing. 	<ul style="list-style-type: none"> • Large awareness and strong civil society engagement in implementation of the law by different stakeholders including the private sector (corporate social and environmental responsibility), ‘Friends of the Forests’, and other environmental advocacy organizations. • CBNRM implementation has helped in raising awareness on the importance of environmental sustainability.
<p style="text-align: center;">Threats</p>	<ul style="list-style-type: none"> • Poor coordination between the different organs dealing with allocation of natural resources (land, minerals, energy, tourism, conservation, etc.). • Corruption and illegal practices, particularly in the consultation process. • Limited knowledge of the rights and obligations regarding access to different resources by the local authorities and the communities. 	<ul style="list-style-type: none"> • Trying to reform the legislation may undermine the use of the existing opportunities for REDD implementation as the process may take a long time. • Poor understanding, as yet, of the REDD mechanism by many stakeholders (including at policy level). • Limited access to information, hence the lack of understanding of the potential for developing carbon markets and deriving benefits at local level. • Continuous increase of crop production based on land expansion and non-intensification of land use (through introduction of improved agriculture technologies and crops resilient to the environment). • Access to REDD funding and implementation may not be simple and able to meet expectations in terms of future economic benefits. 	<ul style="list-style-type: none"> • Continuous use of unsustainable practices (slash and burn, non-implementation of environmental management plans) leading to degradation of forests. • Continuous increase in demand for biomass energy, perpetuating dependency on forest resources and impacts thereafter. • Proliferation of climate change-related initiatives without government leadership on priority-setting and inter-institutional coordination may result in many lost opportunities.

c) Extrasectoral policies with bearing on land use and emissions

Agriculture

The *Agrarian Policy* (MAP 1995b) defined sustainable management of natural resources as the key to the development of the agriculture sector, particularly in respect to its contribution to food security. This policy statement is critical in a country with an agriculture-based economy, where technology is yet to reach the smallholder and the lack of a number of services (such as training, technology transfer, and access to credit for purchasing inputs and to produce markets) is one of the limiting factors to agriculture intensification and specialization, as well as increased productivity and production. The policy statement fails to address the use of fire for land clearing and shifting cultivation, which is a common practice in the search of more productive soil.

The government of Mozambique has developed the Strategic Plan for Development of the Agrarian Sector (PEDSA) from 2011 to 2019. This is building upon CAADP and PROAGRI². The objective of this strategy is to contribute to food security and revenue generation from agriculture products, as well as increase production aimed at the market in a rapid, competitive and sustainable manner. Delivery of these goals depends on five pillars of this strategy including:

1. sustainable use and management of natural resources;
2. research and extension services to enable knowledge generation and dissemination on technologies of production and agro-processing;
3. infrastructure development particularly increase of road network in the rural areas and access to markets;
4. improved financial services to contribute to investment in increased production and productivity;
5. institutional development and human capital at central and local levels.

Implementation of this strategy will certainly require clearing of forests as well as increase productivity in the current areas under smallholder, and large scale commercial farmers. Productivity increase is paramount to reducing fire and shifting cultivation. Assessment of land use change and mapping of carbon stocks will allow monitoring of impacts of implementation of this strategy. Strategic environmental and social assessment of REDD+ also needs to evaluate potential impacts of PEDSA on land use change and mitigation measures.

Energy Policy

Mozambique produces and exports hydro-electrical power mainly to South Africa and other countries in the region. The country is also exploring coal and gas. However, there is still a large deficit in terms of provision of this energy to fuel the country's development. With World Bank support, the country is investing in establishing a transmission line that crosses through the country in order to increase the coverage. Development of renewable sources of energy such as solar, wind and biogas are being pursued.

The Ministry of Energy (MEnergia) has a Directorate of New and Renewable Energies with mandate of investing alternative sources of energy and establishes policies to ensure access to the same. An experiment on solar and wind energy is being piloted in the country. MEnergia and MINAG have been coordinating efforts over the years on identification of strategies to address the crescent demand for biomass energy in the country.

In the wake of the economic crisis and soaring of oil prices, Mozambique saw a surge in land demand for biofuels. In response to this the government conducted a zoning to establish land available for biofuels and also steered the policy development process. This culminated with

² Agriculture Sector Investment Programme introduced by World Bank and other partners in the late 1990's, which is still a major platform for donor coordination in financing the agriculture sector in general

the adoption of the Policy and Strategy for Biofuels, approved in 2009. The objectives include promoting sustainable production of biofuels; reducing the country's dependence on fossil fuels; diversifying sources of energy; promoting sustainable rural development; and generation of foreign exchange through increased exports; exploring regional and international markets; promote research on technologies for production of biofuels by national institutions, including technologies applicable to local communities; ensuring food and nutritional security; reduce cost of fuel for the final consumer; and protecting national consumers against the volatile prices of fossil fuels and energy insecurity. Nevertheless, the size of the country's economy is small and consumes less than a million m³ of fossil fuels per year, hence demand for biodiesel or ethanol blending is negligible. Therefore, international markets are in fact the main potential beneficiaries of biofuels not meeting internal demand.

Mining

The mining policy defines that state ownership rights supersede customary and other use rights. However, the mining like most of legislation in Mozambique is progressive regarding environmental sustainability obligations. The companies are required to identify and define plans to address negative environmental impacts during prospection and implementation of investments. The requirements include environmental impact assessment and development of related management plan, and implementation of best mining practices as well as in establishment of the necessary infrastructure.

Governance

World Bank (2009)³ identified five pillars to analyze forest governance. This framework is used to provide a snapshot assessment on governance challenges; however a detailed analysis will be conducted during the implementation of RPP.

Table 17 Assessment of key governance challenges

Forest governance pillars	Brief assessment
Transparency, accountability and Public participation	<p>Public participation- community consultation is conducted before adjudication of forests and land to commercial exploration or for protection purposes. Government decisions have to be made within 90 days of submission of application. The challenge is to improve timely availability of information to give opportunity for an informed response by communities. Experience and several case studies (e.g. Nhantumbo and Salomao, 2009) have documented that this process is often not implemented according to lawa and regulations and some parties might use it to further their interests.</p> <p>Transparency – While annual reports are produced indicating land and forest allocation, progress on development of management plans in concessions, revenue from royalties etc. Though this information can be solicited, it is not printed and distributed publically. A summary report is generally presented in the annual meeting of the sector, and elements presented to the Forest Forum comprising of private sector, academia and NGOs and chaired by DNTF. The representativeness of NGOs is generally limited, while community representatives are completely absent. Recently, a Land Forum was created as platform for dialogue on issues of rights and processes of rights adjudication. Dialogue between stakeholders on the mechanisms of operation of these fora could ensure maximum benefits, including a proactive engagement in setting the agenda of the meetings, schedule and chairing. The Ministry of Agriculture does not have a strategy to deal with public demand for clarification on governance of the sector.</p> <p>Accountability – Since adoption of CBNRM as one of the forest strategies, four national conferences have been organized through collaboration between government and civil society. This one of the few platforms for stock taking on</p>

³³ **Roots for Good Forest Outcomes: An Analytical Framework for Governance Reforms**

	<p>policy implementation lessons and challenges. Although there have been instances where forest authorities in the provinces were removed as a result of rampant illegal logging, this is often an internal response to the problem. There is no clear mechanism for the Head Provincial Forest/Land Services to communicate with local stakeholders regarding forest resources, revenues generated and law enforcement. There are, nonetheless, interactions with private sector through their associations and some provinces such as Cabo Delgado, Zambézia and Sofala conduct <i>ad hoc</i> stock taking meetings. When communities are given the 20% royalties by the Forest authorities, there is no information on quantity of timber extracted, total value of revenues as well as the share received by other forest dwellers.</p>
Stability of forest institutions and conflict management	<p>The forest sector has been stable for several years in terms of leadership, policy and clear vision and programme. On the other hand, in the past three to four years there were successive changes in leadership, at high level and for about a year the deputy national director accumulated the two roles. This somehow affected the normal functioning and decision-making within the institution. One symptomatic area is only recent engagement of National Director and Deputy of Lands and Forests in the REDD+ process. (This may pave the way for building ownership of the readiness process and contribute to development of national strategy.)</p>
Quality of forest administration	<p>Forest and land administration are secured by national level institutions such as the resources assessment department and centre land mapping departments. These are responsible for presenting land cover and use; monitor and map information on land allocation to various economic activities.</p> <p>At provincial level collecting and collating information on use is also important. However, the work done in the context of REDD exposed many problems (some of which basic) that need to be addressed in order to create a reliable information management system which can improve efficiency and effectiveness in forest administration.</p>
Coherence of forest legislation and rule of law	<p>Mozambique has good policies that devolves resources to local communities and creates provisions for sustainable use of resources. Yet, law enforcement is a stumbling block. The number of field officers is small, with limited means hence vulnerable to corruption. At National level there is also insufficient personnel dedicated to law enforcement, including technical verification of implementation of management plans. There are nearly 179 concessions in the country but only 106 fulfilled the requisites; fewer implement the management interventions and most implement minimum processing. There is a gap in technical staff to monitor the content and implementation of management plans beyond sporadic visits by senior staff. There is also need to monitor implementation of environmental management plans by the timber industries including large scale plantations.</p> <p>The average number of annual licenses issued reduced 22%, but in reality the number increased in the provinces of high value timber. In fact, the volume harvested is nearly the double of what was harvested under concession regime. Poor law enforcement of legislation on processing requirements, classes of species that can be exported facilitates illegal exports; loss of value added and employment. Recently more than 500 containers of logs were intercepted in the different harbors' in Mozambique destined to China.</p> <p>Community delimitations and registration of land rights is undertaken generally with NGO support. Likewise, distribution of the 20% share depends on external institutions to support community organization process. Implementation mechanisms have to be strengthened.</p>
Economic efficiency, equity and incentives	<p>The current legislation clearly defines economic, social, ecological and institutional objectives and defined strategies to achieving them. All objectives are underpinned by sustainable use, ecological integrity, creation of benefits to the national economy and ensuring that forest dependent communities also benefit. The private sector, for example, benefit from 40% reduction of royalties for wood processed in the country to promote value addition; 15% of surcharge on royalties is aimed to support reforestation and enrichment of harvested areas; 20% of the royalties are given back to communities. The legislation contains the right instruments for sustainable management, but implementation is the major drawback.</p>

	<p>The royalties are generally low, as they have not been adjusted for inflation since 2002. For example, the highest royalties for precious species is nearly half of the value a few years ago. The royalty for charcoal is US\$0.3/bag of 50 Kg, being that the producer sells it at US\$1.67 to an intermediary or middlemen who sell it in bulk in Nampula city for US\$4-5. There is indication that both the state and the producer lose revenue for the middlemen. A new Law and its Regulation for Timber will soon be in place (<i>Lei da Taxa de sobrevalorização da madeira</i>).</p>
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Table 18 Interventions to address key priority in Component 2a

Activities	Responsibility	Location	Target
Identification of land use/users and mapping at sub-national level	DNTF, UEM - coordination of REDD+ working group	Pilot provinces - Zambézia, Nampula, Gaza, Sofala and Niassa.	Second quarter of 2012
Mapping of land rights and assess implications for REDD+ goals	REDD+ working group and UT-REDD+ once established	Zambézia, Nampula, Gaza, Sofala and Niassa, Tete, Inhambane	Second quarter 2012
Research on sustainable land use practices including in drylands and costing	IIAM, UEM, INGC and sub-national based universities and other institutions	28 districts in drylands and other REDD+ pilot areas	End of first quarter of 2012
Dissemination of technologies	MINAG under coordination of REDD+ working group	All pilot areas	2012-2013
Development of background papers including case studies on drivers, rights and other relevant issues.	REDD+ working group and UT-REDD+ once established	All pilot areas	Last quarter 2011-2012

Table 19 Budget for component 2a To be developed

Table 2a: Summary of Assessment of Land Use, Forest Policy and Governance Activities and Budget (Follow-up Activities Needed)						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

2b. REDD-plus Strategy Options

Development strategies and climate change mitigation

Mozambique is striving to improve economic growth through sustainable use and management of its wealth of renewable and non-renewable resources. Agriculture sector contributes almost 25% of the country's GDP and it is the major employer in the country, particularly for rural population. Poverty incidence is still above 50%. In the past decade the government developed two poverty reduction strategy papers (PRSP I and II) to address the Millennium Development Goals (MDGs), two agriculture sector investment programs (PROAGRI I and II). Poverty reduction, food security, value addition, employment creation, reduction of vulnerability, improve research and extension services; access to markets for financial resources and goods and services; community engagement; proactive private sector are some of the goals/challenges pursued in these strategies. Strategic Plan for Development of the Agriculture Sector has just been approved for 2011 to 2019.

Climate change affects productivity and models show exacerbation of floods and droughts and possible impact on major water courses such as the Zambezi River. Therefore, developing adaptation and mitigation policies, strategies and interventions is paramount to reduce possible impacts on people's livelihoods, on the economy and on the environment. There will be tradeoffs to be considered in implementing REDD+ and the growing potential of extractive industries, particularly mining as well as promotion of agriculture in the Zambezi Valley and north of Mozambique.

Vision and principles for readiness plan and strategy

The readiness process aims at facilitating the development of a strategy that will contribute to value natural capital and acknowledge the contribution of environmental services to the economy and social wellbeing of the current and future generations, as such multi-sector interventions and compliance with good governance principles are an important platform for delivering REDD+ goals.

The REDD+ options aim at (i) reducing emissions from deforestation and forest degradation as well as promote enhancement of carbon stocks; (ii) delivering co-benefits (poverty reduction, sustainable development and biodiversity conservation) to the people and to the country. The general principles guiding the choice of effective options include:

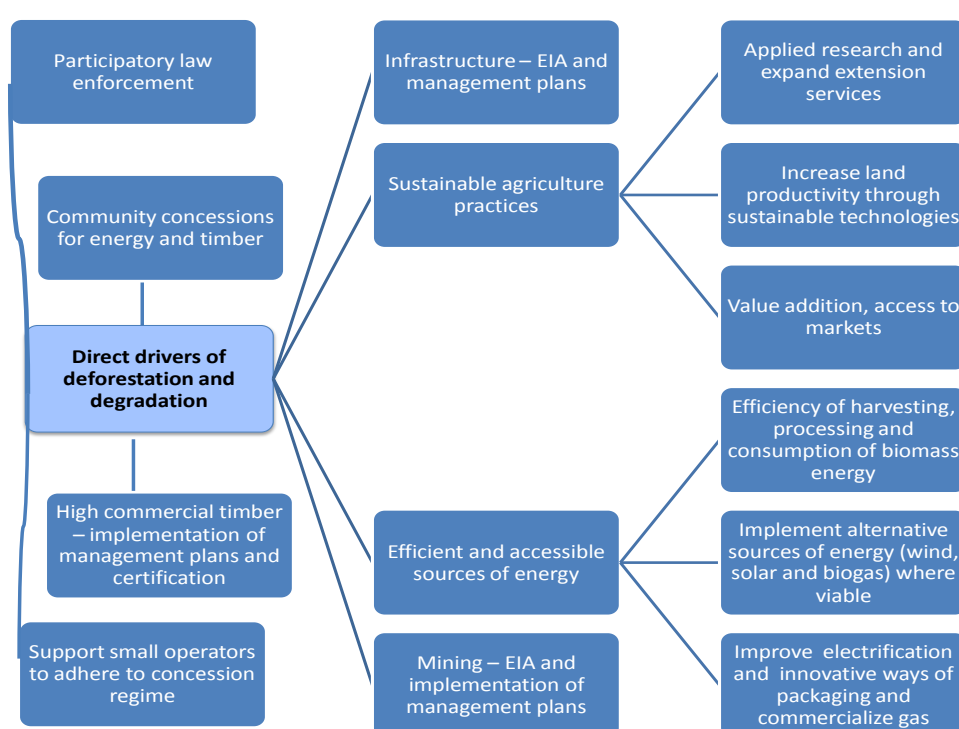
- the extent to which they contribute to additional carbon sequestration capacity (with potential payment for carbon credits as complement to development activities);
- permanence (long-term commitment to reduction of emissions);
- leakage control within the country borders and neighboring countries;
- objectivity in assessment of performance in terms of carbon emissions and removals as well as co-benefits;
- equitable rights to carbon and sharing of costs and benefits resulting from REDD+ interventions;
- access information to enable participation of land users and making informed choices;
- transparency;
- effectiveness of interventions to address drivers of deforestation and degradation and low transaction costs.

Options, models and interventions to address direct and indirect drivers of deforestation and forest degradation

Address indirect and direct drivers of forest conversion or degradation calls for a strong technical capacity of coordination and multi-sector dialogue to ensure commitment and mainstreaming of interventions in sectoral programmes. This should be based on development of:

- Strategic mapping of land cover and development of land use plans;
- Adjudicate land use rights based on potential and understanding of impact on emissions.

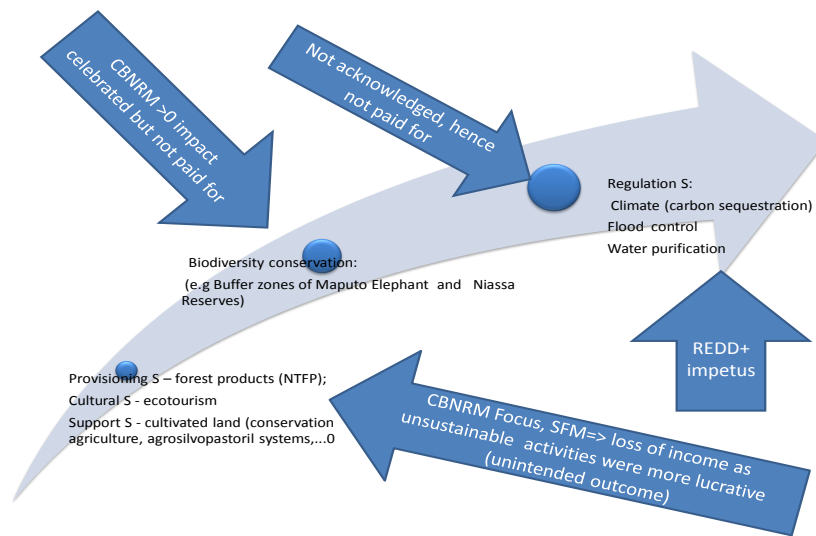
Figure 14 Interventions for addressing drivers of deforestation and degradation



Delivery models for implementing on the options above may include agriculture conservation, community based natural resources management with development of alternative livelihoods as well as payment for ecosystems services; community forestry and private sector plantations (for rehabilitation or restoration of landscapes and for energy); partnership between communities and private sector with the value of land used to determine community's shares; small and medium enterprises; among other models to be explored during the R-PP process.

The major lesson from past experiences (such as CBNRM) in addressing deforestation is that the causes cannot be dealt with short term projects of less than five years. Analysis of viability of some interventions promoting participatory natural resources management indicated that in most cases at least seven years were necessary for modest net benefits to be realized. The timeframe for implementation of REDD+ strategy is 2025.

Figure 15 Stream of services and benefits from sustainable land use



The options to addressing indirect drivers of deforestation and degradation include:

- Improvement of law enforcement and governance not only in the forest sector, but also in the environment as well as transparency on revenues generated from investments, contribution to national economy and mitigating environmental and social impacts.
- Develop specific legislation on carbon rights building on consultations suggesting that these should be linked to land and forest tenure. Community acquired rights to lands are acknowledged by law; therefore REDD+ could capitalize on that.
- Forest guards are currently entrusted with dealing with illegal practices and overall law enforcement. However, there is need to strengthen government capacity to monitor timber harvesting and management practices while equally promoting involvement of independent monitoring institutions. Training, equipment and operational resources need to be availed to DNTF (MINAG) at national and provincial levels to improve monitoring of technical aspects related to implementation of management plans and, DNAIA (MICOA) in regards to environmental auditing and implementation of corrective measures.
- Review of pricing systems, species classification and royalties for timber harvesting in addition to reviewing effectiveness of incentives offered to private investors in the different sectors of the economy that impact on land use and forest cover.
- Review the existing benefit sharing mechanism between the state and communities as well as explore wider application to mining, energy and other industries.
- Analyze the viability of the different delivery models and options including transactions costs, implementation and opportunity costs.

Table 20 Schedule of implementation of strategic activities

Activities	Responsibility	Location	Target
Land use mapping including forest concessions, areas of annual licenses	DNTF, UEM, IIAM and UT-REDD+	Maputo	Fourth quarter of 2012
Analysis of the viability of options and links with sectoral ongoing or planned interventions (to scale up) including assessment of risks of domestic (and international) leakage - cross border trade (food, fuel and timber) with Tanzania, Malawi and other countries.	UT-REDD+	Pilot areas and arid areas	Third quarter of 2012
Development of performance indicators applicable to Mozambique	UT-REDD+	Pilot areas and national level	Fourth quarter of 2012
Development of the necessary legal (carbon rights and benefit sharing mechanisms) instruments for effective implementation of REDD+	UT-REDD+	Maputo	Fourth quarter of 2012

Table 2b: Summary of Strategy Activities and Budget (or Results Framework) – to be developed

Note: UN-REDD requested this table in a slightly different format from the rest of the tables.

Note: UN-REDD requested this table in a slightly different format from the tables.							
Output (major activity)	Organizations involved	Activities or Sub-activities	Budget allocation in thousand (estimated cost in thousands)				
			2011	2012	2013	2014	Total
Outcome 1:							
Output 1.1		1.1.1 main activity	\$	\$	\$	\$	\$
		Sub activity 1	\$	\$	\$	\$	\$
		Sub activity 2	\$	\$	\$	\$	\$
Output 1.2		1.2.1 Main activity	\$	\$	\$	\$	\$
		Sub activity 1	\$	\$	\$	\$	\$
			\$	\$	\$	\$	\$
Total			\$	\$	\$	\$	\$
Government			\$	\$	\$	\$	\$
FCPF			\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)			\$	\$	\$	\$	\$
Other Development Partner 1 (name)			\$	\$	\$	\$	\$
Other Development Partner 2 (name)							

Other Development Partner 3 (name)					
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Notes: 1. Countries are encouraged to include outcomes, outputs, and organizations involved in this table for this component, for consistency with normal program outcomes and indicator procedures. If identifying outcomes and outputs is difficult at this stage, include your tentative early ideas and then revisit them during Readiness Preparation.

2. Outcome: Actual or intended change in development condition that project interventions are seeking to support. Outcome includes key results such as governance reforms functioning national inter-ministry coordination, national or regional policy or legal reforms, etc.

3. Output: The direct result of project inputs, achieved through the completion of project activities, including tangible products for services necessary to achieve the outcomes of a programme or project. E.g., workshop reports, studies, new training courses, etc.

2c. REDD-plus Implementation Framework

Who owns carbon?

As previously indicated in component 1, all renewable and non-renewable resources are under State proprietorship. The government adjudicates use rights to communities and investors, following a consultation process. The legislation equally acknowledges customary rights to land and formal registration is not mandatory but communities can choose to delimit, demarcate and acquire land use certificate for the land. Harvesting on forest resources on that land for subsistence is not subject to license. However, if explored for commercial purposes communities are liable to meeting the requisites applied to investors. Consequently, they would have to undertake resources inventories, design management plans and install processing facilities.

Discussions during consultation suggest that carbon rights should be tied to customary land tenure in order to limit possible alienation of communities in implementation of REDD+ and benefit sharing. A background paper is being produced by an environmental NGO to feed further consultation. These shall include international NGOs (e.g. FFI, WWF, IUCN, EnviroTrade) and private sector involved in industrial forest plantations and seeking to capitalize on both CDM and REDD+ funding or market mechanisms. Communities and national organizations supporting community rights such as ORAM, CTV and ITC and other local institutions including natural resources management committees and the multi-stakeholder platforms at district level should be part of the process.

Which forest types or categories?

Deforestation and degradation occur across all types of forests and all management categories, that is, (i) protected areas under government management responsibility; encroachment for cultivation and extraction of forest products is commonplace; (ii) productive forests allocated to commercial harvesting with selective and unsustainable practices; and (iii) multiple use forests from which forest dwellers and urban population derive livelihoods and essential products such as energy and construction materials.

As such, REDD+ should be implemented in all forest types and pilot areas identified reflect this. REDD+ will capitalize on community land delimitations being undertaken by ORAM, ITC and local organization throughout the country. Community based natural resources managements and rural development initiatives including agribusinesses will provide insights in benefit delivery models.

Financing and benefit sharing mechanisms

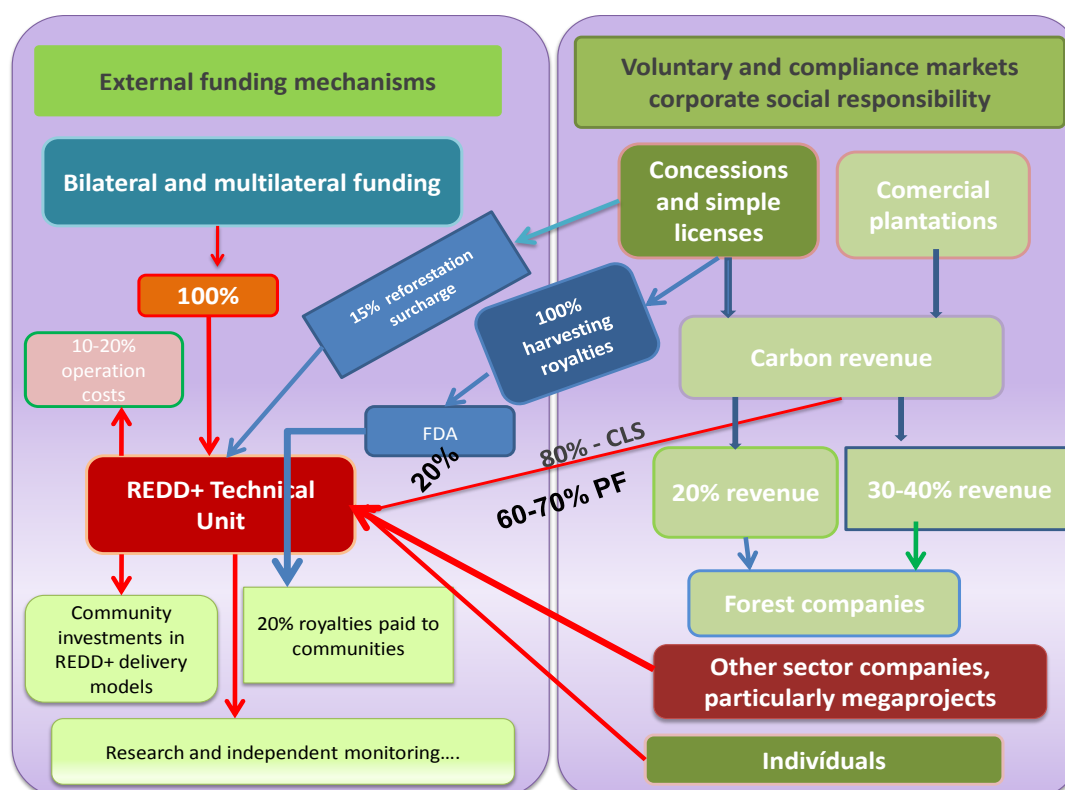
Defining financing mechanisms has dominated international negotiations yet uncertainties prevail. For developing countries remains the dilemma of designing REDD+ strategies without creating unduly expectations, particularly regarding potential payment for carbon credits. Fund and market based mechanisms, despite having different underlying principles and operation, are not mutually exclusive. The question is whether conditions for transparent operation of markets exist or not and whether safeguards are in place to ensure equitable benefits.

Corporate social responsibility experiences and recent interest of transport companies (e.g. LAM) in engaging in carbon offsets will provide a learning platform to define potential fundraising mechanisms at national level to support good land use practices.

The scenario below has been discussed during consultations to establish the extent to which existing taxes in the forest sector can contribute to stimulate contribution to REDD+ implementation. Sustainable forest management and enhancement of carbon stocks as options are available both to communities and private sector. Conversely, how should benefit

from carbon revenue be shared? This will continue being debated during the preparedness phase. The most important aspect is, firstly the fact that while multilateral/bilateral funding may be the main source of funding for REDD+, it is important to explore internal mechanisms to generate funds including philanthropy. For example, the UT-REDD+ can manage revenue from taxes aiming to support '+' activities; secondly, that transaction costs need to be clearly defined to allow operation of the mechanism in a transparent manner while ensuring that the bulk of funding actually goes to support improvement of land use practices; and, thirdly, that eligible activities for REDD+ should include knowledge generation and dissemination processes.

Figure 16 Analysis of possible sources of funding for REDD+ and role of private sector



The country has experiences of private organized deals between commercial plantation companies (Chikweti and Lúrio Green Resources) and communities whereby the latter are paid \$3/ha of unburned forest plantation. This is conflict management tool. Despite the fact that the basis of calculation of the price may need clarification, the concept may inform the development of appropriate incentives for sustainable land management.

Furthermore, balancing benefits to individual households and communities is important. Other scenarios need to be considered during the next two years in order to identify either one scenario that can universally be applied or multiple scenarios applicable to different sub-national contexts. These questions need to be explored in the pilot areas.

National and sub-national accounting

While the accounting unit for emissions reduction is the country, sub-national level interventions will determine achievement of the national level targets. Therefore, the province of Zambézia was chosen for piloting (REDD+ information systems) land use mapping, land resources rights mapping, determination of carbon stocks, assessment of extractive industries (forests including illegal logging and mining) and impact on land cover. The challenges of land

administration in the province also illustrate the need to devise improved systems of collection, compilation and analysis of information. This is a pre-requisite for producing accurate accounts of the impacts of land use in emission levels. The information collected will be used to define sub-national reference levels and MRV system. Detailed assessment of methodologies for reconciling with the national MRV system will be developed.

In addition, the Department of natural resources Inventory of DNTF with JICA assistance and informed also by the consultation process is developing detailed forest cover and land use maps in Gaza and Tete provinces. The aim is to detect changes caused by deforestation using remote sensing. High resolution satellite images and ground truth inventory in accordance with REDD+ technical methodologies being developed by GOFC-GOLD will be applied.

In addition, 2 districts in each of the 10 provinces were selected to pilot development of participatory forest monitoring system. Geographic information will be collected in these 20 districts.

Table 21 Selected Districts to pilot monitoring

Province	District 1	District 2	REDD pilots areas
Maputo	Matutuine	Magude	
Gaza	Bilene	Chicualacuala	√
Inhambane	Mabote	Vilanculo	
Manica	Gondola	Macossa	
Zambezia	Murrumbala	Gile	√
Tete	Moatize	Tsangano	
Sofala	Gorongosa	Cheringoma	√
Nampula	Mecuburi	Mossuril	√
Niassa	Nuembe	Majune	
Cabo Delgado	Ancuabe	Montepuez	

Using GPS, SDAE officers will collect data on forest cover change such as forest fire, logging, sifting cultivation and other uses and report to SPFB. Other sources of data will include DPA, SPFB, and SPGC of each province and in Maputo, and Ministry of Tourism (DNAC), NGOs, donor agencies, commercial investment firms and others. The information will be compiled to construct reference maps for each District. This will be used to determine approximate tree biomass, carbon stocks and design a monitoring system. A report will be compiled to update existing information at DNTF-DNRI, hence creating a basis for a national accounting and monitoring system.

This process should also inform how the registry for REDD+ activities and transactions will be conducted. The government is discussing institutional arrangements for managing all mitigation aspects of climate change, including CDM and low development carbon. National accounting of emission is contemplated and registry can provide a more realistic picture for net carbon in the country and effectiveness of different interventions.

Monitoring performance and management of conflicts

A preceding step from monitoring is the definition of indicators to be monitored: land use, rights, carbon stocks, socio-economic impacts etc. The Institute for Economic, Social and Environmental studies could be engaged in monitoring impacts on local and national economy; the primary accounting of carbon could be under the responsibility of DNTF being the institution that deals with resources assessment in the country. Universities such as UEM and others based in the provinces can take the role of independent monitors. However, this needs consultations and capacity assessment.

Many NGOs working on land issues at local level such as ORAM also have knowledge and experience of managing conflicts between land users. There are also other experiences of using local tribunals to address conflicts as well as human rights organizations at national level. Anti-corruption legislation and institutions to facilitate implementation are equally in place. Nevertheless, a review of these mechanisms and development of a framework for prevention, management of conflicts and redress of grievances will be prepared drawing from existing instruments.

While there may be merit in looking at different REDD+ implementation issues in different pilot projects, it is also necessary to test all relevant aspects (legal, institutional, funding, benefit sharing, conflict, etc.) in the same site. Manica, Nampula and Gaza will be used as possible REDD+ laboratories. The Norwegian government is funding the initial work for establishment of these pilot areas, but there would be great merit in this R-PP providing additional funds towards full implementation of REDD+. Manica is a potential candidate as there are other donors such as Ford Foundation support to MICAIA, the World Bank Funding to TFCA of Chimanmani and potential leverage from government funding to district programmes.

Table 22 Implementation framework activities

Activities	Responsibility	Location	Target
Analysis of customary and statutory law – gender equity	REDD+ Working group or UT-REDD+	Pilot areas	Second quarter 2012
CDM and REDD+ a continuum? What are implications to rights, benefits and beneficiaries?	REDD+ Working group or UT-REDD+	Nampula and Niassa	Second quarter 2012
Financing mechanisms and sustainability of REDD+ interventions	REDD+ Working group or UT-REDD+		Second quarter 2012
Partnerships and leveraging existing experience including synergies between the Rio Conventions (UNFCCC, CBD and UNCCD- IMBMs for SLM)	REDD+ Working group or UT-REDD+ and UNCCD	Tete, Inhambane, Gaza, Nampula	First quarter 2013
Analysis of existing experiences on self-organized deals between private sector and communities (e.g. payments in cash and in kind for not burning seedlings)	REDD+ Working group or UT-REDD+	Nampula and Niassa	Fourth quarter of 2012
Investments and benefits of land use change: to individual members of communities, households or community? What are the tradeoffs?	REDD+ Working group or UT-REDD+	Pilot area	End of first quarter of 2013
Carbon accounting level and challenges to assess domestic and international	DNTF, REDD+ Working group or UT-REDD+	Pilot provinces and national level	End 2013

leakages			
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Table 23 Budget for component 2c To be developed

Table 2c: Summary of Implementation Framework Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

2d. Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation

Standard 2d the R-PP text needs to meet for this component: Assessment of social and environmental impacts:

The proposal includes a program of work for due diligence for strategic environmental and social impact assessment in compliance with the World Bank's or UN-REDD Programme's safeguard policies, including methods to evaluate how to address those impacts via studies, consultations, and specific mitigation measures aimed at preventing or minimizing adverse effects. For countries receiving funding via the World Bank, a simple work plan is presented for how the SESA process will be followed, and for preparation of the ESMF.

Strategic Environmental and Social Assessment (SESA) is a process aiming to address and mitigate impacts resulting from implementation of policies, plans and strategies such as the REDD+. The benefits of REDD+ include reduction of emissions, protect biodiversity as well as promote sustainable livelihoods. There are also expectations that delivery of economic growth should not be undermined as a result of REDD+ implementation. FCPF, UN-REDD and Care International defined principles, criteria and tools to ensure that REDD+ does not harm the social fabric and livelihoods as well as bringing further damage to the environment. The design of Environmental and Social Management Framework (ESMF) is a key instrument to managing the risks and impacts.

Drivers of deforestation and degradation identified in 2a, and the strategic options identified in 2b have potential to bring positive or negative impacts to communities, private sector and for the state as a whole. REDD+ requires a multi-sector integrated planning and engagement in order to ensure mechanisms aiming to reduce emissions from land use change do not harm the objectives of economic development and overall achievement of MDGs, mainly addressing poverty, food security, gender equity and other benefits to improve education and health of the people.

Strategic assessment has also to be conducted in relation to establish the extent to which the defined reference scenarios will demand balanced interventions from all stakeholders and ensure that livelihoods of communities are not further limited.

REDD+ early challenges for Mozambique

The sudden increase of private interest and international conservation organizations to establish REDD+ projects is a challenge in a context where the REDD+ strategy is being developed. While piloting is an important step in the learning process, having *guidelines on minimum conditions (legal, institutional and operational) to avoid harming communities and the state* is certainly urgent. These can include application of existing legislation on land and forests, in addition to engaging stakeholders in discussions on carbon ownership and benefit sharing mechanisms. These are some of the key determinants of social impacts of REDD+, including effectiveness in addressing the drivers of emissions from change in forest cover. Furthermore, early discussion of the funding mechanisms for such interventions can contribute to better understanding at sub-national level of opportunities that they offer as well as risks associated.

Institutions that should play a role in SESA and ESMF and past experiences

The integration of environmental and social assessment into the readiness process will require that additional expertise is brought into the process. For example, the National Directorate of Environmental Impact Assessment (DNAIA) at MICOA responsible for development of policies, review environmental impact studies and mitigation plans, as well as conducting environmental audits, should be part of the mandate of the UT-REDD+. MICOA also has Sustainable Development Centres for the Coastal Zone based in Xai-Xai (Gaza province) and forest and other resources in Chimoio (Manica). The former conducted the first macro-zoning and Strategic Environmental Assessment (SEA) of the Coastal Zone using the SEACAM framework.

The Ministry of Agriculture, through the National Directorate of Agrarian Economy (DNEA), facilitated the development of the only Strategic Environmental Assessment (SEA) conducted for a national program – PROAGRI. The SEA of PROAGRI included analysis of social, economic and environmental impacts as well as legal instruments and institutions to implement mitigation measures. The work was conducted under IUCN leadership with the involvement of the Eduardo Mondlane University (agriculture, forestry, economics and social sciences).

WWF has a programme on Forests, which led the review of the status of all forest reserves in the country; as this institution contributed to establishment and management of some protected areas; it contributed to assessment of biological/conservation hotspots to be considered in zoning of areas for reforestation in the country and conducted similar analysis for areas allocated to plantation of crops for biofuels.

The Ministry of Tourism (MITUR), through the National Directorate of Conservation Areas (DNAC), manages protected areas (16% of land surface) in the country, including the transfrontier conservation areas. They can contribute to analysis of impact of REDD+ predominantly in biodiversity conservation and potential impacts to tourism activities in protected areas.

Finally, ARPAC- the Institute of Cultural Patrimony and Studies - has a wealth of information on social aspects that may be relevant in the development of the REDD+ strategy. There is a Centre for African Studies as well as Political Sciences in UEM dedicated to research on community issues and governance. Therefore, these can contribute in the analysis of potential social impacts of REDD+.

This is a preliminary indication of potential government institutions to be involved; however, liaison with provincial based institutions, particularly in the critical provinces, in terms of deforestation and degradation will be sought.

NGOs working on environmental issues and community support will also play a key facilitating role in consultation with local communities. Furthermore, private sector (investor and consultancy companies) also has experience in developing and implementing EIA. Despite the relative micro-scale of the latter, there are important lessons to learn on effectiveness of implementation of mitigation frameworks.

Possible areas of SESA and ESMF

The materials presented in this document reflect the work undertaken so far in the readiness process financed by the Embassy of Norway in Maputo. While there have been consultations on various aspects of REDD+ this component was not addressed. It was then necessary to discuss what REDD+ is so that stakeholders can be able to identify potential negative impacts and suggest options to minimize them. The grant request for R-PP is particularly aimed at addressing SESA.

Some of the risks of addressing drivers of deforestation and deforestation include:

- Challenging norms and customs – for example, in Nampula stakeholders indicated that unless health and reproductive issues are addressed it is not possible to implement REDD+ given the growing population.
- Private sector capturing the expected benefits from REDD+ without necessarily ensuring that drivers of deforestation and degradation by community practices are adequately integrated.
- Possible alienation of communities resulting in further loss of rights and livelihoods.
- Large scale plantations while may provide significant carbon stocks enhancement, can also bring negative impacts to biodiversity.
- Costs of monitoring implementation of good governance requirements for extractive industries, infrastructure and other investments.

Therefore, SESA should include the following issues:

- Land allocation to economic activities based on land use plan.
- Land tenure, access to resources and benefit sharing mechanisms.
- Impacts of REDD+ strategy delivery options/models and interventions.
- Assess existing capacities and gaps to address the environmental and social issues identified.
- Develop a framework to mitigate and manage impacts and risks associated with implementation of REDD+ strategy options, i.e. Environmental and Social Management Framework (ESMF).
- Integrate the outreach, communication and consultative mechanisms defined in component 1c to engage relevant stakeholders in all steps of SESA and development of ESMF.

Activity	Responsibility	Location	Time frame
Develop TOR for SESA	REDD+ working group	Maputo	Fourth quarter 2011
Undertake SESA	MICOA, MINAG, CDS, other members of REDD+ working group or UT-REDD+	Pilot and national level	Fourth quarter 2012
Design ESMF	MICOA, MINAG, CDS, other members of REDD+ working group or UT-REDD+		Second quarter of 2013

Table 24 Budget for SESA To be developed

Table 2d: Summary of Social and Environmental Impact Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

Component 3: Develop a Reference Level

Standard 3 the R-PP text needs to meet for this component: Reference Level:

Present work plan for how the reference level for deforestation, forest degradation (if desired), conservation, sustainable management of forest, and enhancement of carbon stocks will be developed. Include early ideas on a process for determining which approach and methods to use (e.g., forest cover change and GHG emissions based on historical trends, and/or projections into the future of historical trend data; combination of inventory and/or remote sensing, and/or GIS or modeling), major data requirements, and current capacity and capacity requirements. Assess linkages to components 2a (assessment of deforestation drivers), 2b (REDD-plus strategy activities), and 4 (MRV system design).

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a stepwise approach may be useful. This component states what early activities are proposed.)

Background

Mozambique conducted national forest inventories in 1970, 1990 and 2004 and carried out sub-national inventories in Zambézia, Inhambane and Manica. Recently an agriculture zoning (driven by biofuels) was conducted at scale of 1: 1 000 000 which did not offer sufficient details for planning purposes but prompted discussions on criteria used. Ongoing work at 1:250 000 is likely to provide more insights on land use and land availability. Zoning of areas of reforestation also offer useful information.

However, the country still does not have a comprehensive inventory neither of biomass nor on stocks of forest carbon. There are a few site specific studies, particularly in the central part of Mozambique (Manica and Sofala). The estimates only include tree biomass above ground and roots, i.e., soil carbon, herbaceous stratum and dead materials are excluded. For example, Siteo (2008) conducted a study on carbon stocks in miombo woodlands of Manica. The results showed that soil and herbaceous carbon stocks can be as much as 40 tCO₂ per ha. Similar results were found by Walker and Desanker (2004) in a study on miombo woodlands in Malawi, Williams et al (2008) in Gorongosa and Tchauque (2004) in the Beira corridor. About thickets, on the other hand, there are only 26 tCO₂ per ha, 29 ha of forests in agriculture land and in other forests there are stocks ranging from 45-56 tCO₂ per ha.

Another analysis of carbon stocks in areas zoned for establishing forest plantations in Niassa miombo woodlands (to be replaced with monoculture) store 56.7 tCO₂ per ha, while areas of gramineae with native fruit trees or domesticated such as mangoes and figs stock up 15.9 tCO₂ per ha.

Therefore, the current estimates are based on conversion of volume from the National Inventory report (2007) and use IPCC (2003) equations to provide initial estimate stocks of carbon for different forest types. The total carbon in the different provinces was estimated based on forest types and vary between 212.5 million tCO₂ and 851.8 million tCO₂.

A high resolution satellite image map (>2.5m) which covers all country land will be provided in 2012 by Japan Grant Aid. Also, sub-national inventories and remote sensing in Gaza and Tete Provinces will be conducted by a project for capacity building in cooperation with JICA from 2012 to 2014. Based on the outputs of this project, further improvement of geographic information database, detection of biomass volume change and reference scenario are expected.

Carbon emissions

The latest report of GHG (MICOA, 2010) indicates that during 1995-2004 emissions from land use change and silviculture reached 23,738 tCO₂ per annum of which 20,000 tCO₂ per annum was the direct result of burning biomass and the rest from decomposition. The same report indicates that removals from growth of forests and other wooded ecosystems is about 3,252 tCO₂ per year. This suggests that emissions are higher than removals. This inventory does not include the changes of stocks of carbon in the soil and tree growth in abandoned fallow land.

A study of biomass energy (Cuambe 2008) consumption in the country versus growth of species indicated a positive balance in all provinces except in Maputo, while another (Sitoe et al, 2008) sub-national study (Sofala) showed that Dondo, Nhamatanda and Gorongosa have negative balance contrary to the rest of the province. In both cases the results confirm that the pressure of forest resources around the main urban areas of Maputo, Matola and Beira are significant.

Despite deficient data to analyze the balance of carbon in agriculture areas under fallow, thus resulting in secondary forests, there is indication that the capacity of sequestration is reducing as a result of deforestation.

Carbon sequestration or removals

Wood is the most durable carbon sink since carbon connections are the main components. Tree growth is the major source of removals. This, however, depends on soil, rainfall and planting system. There is scanty data in the country regarding growth of the different forest types as well as limited information on spatial distribution of species. The inventory of GHG is based on global estimated parameters. Data requirements for reliable estimates include growth of native and exotic species, impact (relationship) of competition between species and between trees in a plot or forest and, spatial distribution of different native species. Permanent plots are necessary to monitor these factors and define national parameters for predominant types of forests.

The last estimates of forest growth by Saket (1995) suggests 1.4 m³/ha/year in the North, 1.65 m³/ha/year in the centre and 0.4 m³/year in the South, corresponding to increment of carbon stocks of respectively 2.0, 2.3 and 0.6 tCO₂/ha/year.

Williams et. al. (2008) suggests that carbon sequestration in fallow land in Gorongosa is about 0.7 tC/ha/year (range 0.43-0.87). The same authors found that long fallows of over 25-30 years store 19 tCO₂/ha, which is about the same as the primary miombo; on the other hand, soil carbon (depth 0.3 m) is only 21-74 tCO₂/ha in the fallow land compared to 18-140 tCO₂/ha in undisturbed miombo. The authors concluded that deforestation have a larger impact on soil carbon storage capacity. Another study in Malawi at 1.5 m depth showed that shifting cultivation reduces 40% of the storage capacity (Walker & Desanker, 2004).

Reforestation has been increasing over the past few year with acquisition of large tracks of land, particularly in the North of the country for plantation of fast growing species especially *Pinus* spp. and *Eucalyptus* spp. Niassa has a large potential to sequester carbon through tree plantation in the districts of Lichinga, Muembe, Sanga, Lago, Ngaúma e Mandimba. Plantations will be established in 676.000 ha of previously deforested land for cultivation of tobacco and maize. Currently, 36% of the surface of Niassa is protected (Niassa reserve) and there are proposals to extend this area to 53.5 %. Therefore, combination of conservation and plantations offer significant prospects for implementation of REDD+ in the province.

Generally, mature plantations can store as much as 100 tCO₂/ha (IPCC, 2003). Agroforestry systems were introduced in the 80's in Mozambique, with limited success due to lack of transparency of land tenure and benefit sharing mechanisms within the household due to customary norms and associated gender issues. However, these systems are being reintroduced to improve soil productivity together with agriculture conservation practices.

Envirotrade is implementing a Plan Vivo initiative since 2005 within the community of Nhambita, in Sofala. Household members engage in tree plantation using different systems such as agroforestry including hedgerows, alley cropping and woodlots. These include edible and non edible fruits. By 2009 the planted trees were equivalent to 315,000 TCO₂, with potential to sequester 24,117 TCO₂ per annum in a total area of 30,000 ha. . 1,500 producers are involved in this scheme with contract for 100 years and payments for the first 7 years. The payments were US\$ 4.5/TCO₂, equivalent to US\$ 433-808/ha. The duration of payments has been subject of debate as permanence may be threatened when several generations are expected to honor a contract that no longer provides direct benefits from the environmental services.

Options for reducing emissions from deforestation and degradation

Mozambique will strategically address all REDD+, that is, will seek to reduce emissions from all forest formations under all use and management regimes and enhance stocks through plantation in degraded forests, clear cut areas or even areas that never had forests. This is likely to include coastal areas, erosion prone areas and others. The aim is to establish compensation/incentive mechanisms to promote conservation of forests, particularly in protected areas subject to encroachment, sustainable forest management to avoid deforestation and degradation in areas of exploration of high value timber as well as promoting forestation, restoration of degraded ecosystems, valuing storage of carbon in different forest ecosystems.

Given the complexity of measuring forest degradation, the definition in the context of Mozambique will be based on the following aspects: (i) categories of land cover and use; (ii) reduction of carbon stocks. As such national categories of land cover and use need to be identified and carbon stocks assessed, only changes that can be observed in the satellite images will be considered.

REDD+ interventions	RED	REDD	REDD+
Avoid conversion of native forest areas to non-forest areas	X	X	X
Avoid conversion of dense forests to open forests		X	X
Promote sustainable forest management in production areas, i.e., where concessions and annual license operate harvest timber	X	X	X
Conversion of natural forests with low carbon stocks into planted areas into high carbon stock forests			X
Conversion of non-forest areas into plantations			X

As noted previously, reduction of deforestation as previously highlighted requires interventions from other sectors and socio-economic impacts need to be part of analysis of viable options. These should comprise (i) alternative sources of energy including efficient production and use of biomass energy; (ii) alternative income generating activities and, (iii) effective and efficient technologies for subsistence agriculture.

Reference level

There are three scenarios for defining the reference levels, based on historic deforestation, adjusted historic deforestation rate to reflect the current situation and projected. The historic deforestation rates were 0.21% between 1970 and 1990 and an average annual loss of forest of 0.58% up to 2004. Assuming that this deforestation rate will be maintained, it requires innovative and alternative means to meet the energy and food need of the growing population, in particular its density, which is around 50 km from the coast and in urban areas.

The adjusted historic reference level is the modification of the constant deforestation assumption to estimate potential forest loss due to known investments, such as road infrastructure, new settlements, expansion of agriculture biofuels, etc. This requires knowledge of sectorial plans and their location in order to determine impact on forest cover. Analysis of recently approved agriculture sector strategy (PEDSA), the Beira Agriculture Growth Corridor being supported by several donors to boost commercial agriculture in the Zambezi valley, the possible investments in extractive industries (mineral) along the same corridor as well as plans for energy sector including electricity transmission line from Cahora Bassa in Tete to Maputo can give some indication of potential impacts on forests. For example, the reference level would be higher to 0.58%.

The third option is based on projected deforestation in the coming years based on development plans and population growth. The assumptions that need to be considered in developing scenarios include:

- Increase of agriculture production to meet domestic demand and for export through intensification, conservation agriculture and agroforestry systems
- Expansion of community managed areas
- Investment in accessible and affordable energy sources
- Expansion of forest conservation and payment for ecosystems services including high REDD-plus price and payments.

The assumptions for defining the different scenarios would ensure that reference level reflects activities/options (2b) to address causes of deforestation and degradation (2a) and subsequent monitoring.

These should be analyzed strengthen assumptions made in defining preliminary scenarios (historical, historical-adjusted and projected to 2025). Further gathering of information (including discussion of spatial location of sectoral plans) should assess the extent to which they are robust (methodology of estimation and monitoring) as well as to subject them to SESA, given the different interventions that may be need to reach the crediting levels. As previously indicated the current national GHG inventory and reporting process is based on global parameters. This analytical process would enable significant improvements of the country National Communications report on land use trends and GHG emissions.

National vs sub-national scale

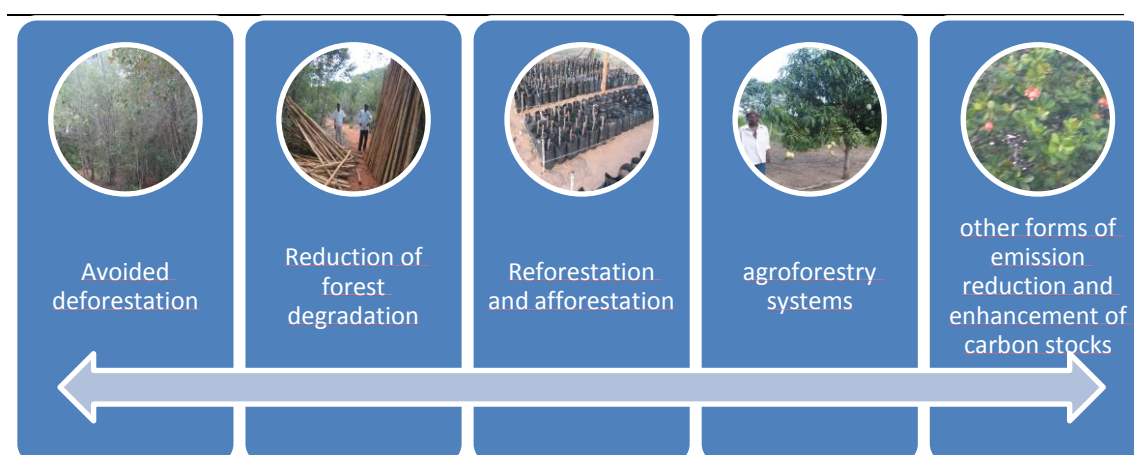
Costs of preparation, management and monitoring of REDD+ initiatives and complexity of carbon accounting will determine the scale of REDD+. Small projects are likely to have higher cost:benefit ratio and more risk of leakages than otherwise. For example, there is high probability of leakage in the case of biomass energy, unless large investments are concomitantly made in improving efficiency of production and ensure availability of affordable

improved stoves for the urban poor population. Leakage accounting needs to consider spatial changes and transfer of activities causing emissions. Generally, this concept is applicable at sub-national level, but if it is at national level, 'outside the project area' means 'another country'. This is important for Mozambique, as the interaction with neighboring countries such as Malawi have impact on extraction of wood products including commercial timber in Zambézia and Niassa. Equally, cross border trade of food products affects land use. In the frontier with Tanzania, migration in search of minerals will affect REDD+ effectiveness.

Leakage based on population deprived from livelihoods due to REDD+; or based on reduced availability of products and cross-sector resulting from creation of employment opportunities in different areas in order to reduce emissions. This, in fact, can contribute to increase of emissions elsewhere depending on activities that the surplus labor will undertake. Therefore, during the readiness period detailed assessment of the leakage will be conducted and discussed with relevant stakeholders.

Studies at sub-national level will be conducted particularly in Zambézia (where degradation of forests due to illegal logging practices is common) and other pilot areas to evaluate potential deviations from the national level reference. REDD+ interventions will be implemented at operational sub-national level. The complexity of management and cost of monitoring and verification, especially if they include field work, can be lowered.

Figure 17 Options of projects at sub-national level integrated to national context



The options of reduction of deforestation and degradations in the context of REDD+ will give impetus to sustainable forest management in commercial and community managed forests. There are various challenges to SFM (Sitoe e Enosse 2003), management of protected forests (Sitoe 2005, Muller, Sitoe e Mabunda 2005, Sitoe et al 2006 RAPPAM), valuation of forest products (Guedes 2008) and economic viability of community enterprises (Nhantumbo, 2004). The challenges include: limited technical capacity; weak law enforcement; limited financial resources; reliance on external technical and financial support, usually of short duration. The private sector alleges low productivity of forests for limited implementation of management plans.

REDD+ increases the value of forests as they are measured not only in terms of biomass, but also in terms of the services they provide. Nonetheless, the current price of carbon in the voluntary markets is low. Therefore, it is valuation of all products and services that will make REDD+ attractive. It needs to combine conservation with diversification of livelihoods,

increase value of productive forests as well as compensate land users for tree planting in areas of low carbon stocks.

REDD+ options at sub-national level

North (Niassa, Nampula, Cabo Delgado)

- . Reforestation and industrial plantations
- . agroforestry systems in community areas
- . Rehabilitation and restoration of degraded areas (mangroves)
- . Avoided Deforestation
 - Niassa Game Reserve
 - Mecuburi Forest Reserve
 - Matibane Forest Reserve
 - Gilé Reserve
 - Forest Concessions
 - Community forests (capitalize on concept 'One pupil, one tree and one leader one community forest) – Presidential Campaign to incentivize tree planting.

Centre (Zambézia, Manica, Sofala, Tete)

- Reforestation and industrial plantations
- Agroforestry systems in community areas
- Rehabilitation and restoration of degraded areas such as mangroves, coastal areas in general and erosion prone areas
- Community forests (capitalize on concept 'One pupil, one tree and one leader one community forest) – Presidential Campaign to incentivize tree planting.
- Avoided deforestation
 - Moribane Forest Reserve
 - Derre Forest Reserve
 - Zomba Forest Reserve
 - Maronga Forest Reserve
 - Muccheve Forest Reserve
 - Inhamitanga Forest Reserve
 - Hunting areas
 - Forest concessions
 - Protected wetlands (Marromeu Ramsar site)

South (Maputo, Gaza e Inhambane)

- Agroforestry systems in community areas
- Rehabilitation and restoration of degraded areas such as mangroves, coastal areas in general and erosion prone areas
- Community forests for energy and conservation
- Community forests (capitalize on concept 'One pupil, one tree and one leader one community forest) – Presidential Campaign to incentivize tree planting.
- Avoided deforestation
 - Maputo Reserve
 - Licuáti Forest Reserve
 - Forest concessions

The sub-national level analysis, preferably at provincial level, have the merit of integrating specific socio-economic context and drivers of deforestation and degradation to determine reference level and consequently facilitating the monitoring of additionality, permanence and leakages. Although leakages might be dominantly internal, cross border trade with neighboring countries can provide insights on displacement of agriculture and forest activities to other areas.

Data needs

- a) National scale inventory at 1:250,000 to establish the reference level
- b) Subnational level inventory of carbon stocks (detailed scale) in priority regions in particular pilot areas to establish reference level for monitoring.
- c) Parameters of biomass and carbon for all components of all components of ecosystems of the main forest formations and all priority land use and cover for REDD+ implementation. This will facilitate monitoring and implementation of REDD+ using Tier 2 methodologies as defined by IPCC.
- d) Functions relating land cover and use with carbon stock using satellite images and other remote sensing forms.
- e) Determine proxies for assessing forest degradation including the impacts of logging, fire and agriculture in reducing carbon stocks to estimate leakages.
- f) Determine carbon sequestration capacity of forests and other land cover and uses.
- g) Mapping delimited community areas and CBNRM to establish boundaries, activities and track use and leakages.
- h) GDP, population, agricultural expansion (e.g. Beira Corridor), forest industry growth (concessions vs annual licenses), mining industry growth (Zambezi basin and Northern provinces), biofuels, rural electrification. Analysis of this data, the use of GIS and possibly economic models will provide the necessary adjustment of coefficients for reference level. Participation of the Ministry of Planning and Development and the National Statistics Bureau (INE) would be crucial for integrating REDD+ into the context of economic development scenario and impacts on national accounts.

Human capacity needs

The National Directorate of Lands and Forests houses the centre of cartography which develops land cover and land use maps, digitize land occupation and registered rights; and department of resources assessment dedicated to mapping forest cover and use. Information gathering and initial spatial mapping is collected by staff in the Provincial Services of Geography and Cadastre and Forestry and Wildlife. These manage information on land allocation for various economic activities and forest licensing regimes. An analysis of information collection and management systems as part of REDD+ process, showed that there are basic errors in data collection and mapping. This suggests that, while national level staff is qualified in the area, the field activities in the provinces are undertaken by technicians without adequate training.

REDD+ requisites of reference levels and monitoring have to prioritize training. In order to earn Certified Emissions Reduction (CER) from REDD+ mechanism, an appropriate monitoring system should be ready in the country. JICA is supporting DNTF to establish an appropriate geographic and forest information platform for REDD+ monitoring in accordance with UNFCCC and IPCC agreed guidelines and methodologies which includes capacity

building of the national, provincial and district level officers for effective use of satellite images, computers, software, field survey equipment and others to be provided by the Japan Grant Aid (USD 7 million).

The Catholic University and University of Zambézia based in Sofala, University of Lúrio in Nampula, University of Cuamba in Niassa and other schools including diploma level (e.g. Agrarian Institute of Chimoio- IAC), the National Institute for Agrarian Research (INIA) conducting research on crops, soils, forests have human capacity that can be drawn to undertake the work and some also have GIS and other equipment and technical expertise for assessing resources and define a credible and verifiable reference line. Specific training might need to be provided to ensure understanding of the internationally established methodologies and adjustments to the national and sub-national contexts.

In the context of the South-South project Mozambique, a technician will visit Brazil to learn about tools for monitoring deforestation and degradation. In addition, mapping land use and carbon stocks is underway to establish the baseline for Manica pilot area. This is being done in collaboration with the University of Edinburgh and Eduardo Mondlane University as well as DNTF. This exercise will also involve provincial government staff, local NGOs and FAS.

There are also initiatives by private sector companies such as the Foundation Eduardo Mondlane, French Forest Agency, Fauna and Flora International and WWF that should also inform the process.

Main interventions:

- Develop scenarios of reference level at subnational level
 - Set reference level for Zambézia and Gaza provinces - map land use including large and small scale agriculture areas, forest concession areas, biofuels, annual license areas, mining, protected forests, community based natural resources management areas, community areas with certificate of land use rights (DUAT), road network, development plans. Quantify and map baseline carbon stocks. Share information on the process and consult on proposed options with land users in the different economic sectors including local communities (leadership, production associations, women and men), academia, research institutions, NGOs, government and private sector.
- Prepare multiple future RL projections at national level including a business as usual (BAU) scenario based on analysis of impacts that alternative assumptions regarding government policies, sectoral plans, macroeconomic trends, or REDD-plus markets are likely to have on land use change over time.

Table 25 Interventions for development of reference level

Activity	Responsibility	Location	Time frame
Develop TOR for sub-national assessment of carbon stocks	UEM and MINAG (DNTF) coordinated by UT-REDD+	Maputo	First quarter 2012
Undertake field level studies – data collection and analysis (including definition of national parameters to adjust IPCC equations)	UEM and MINAG (DNTF) coordinated by UT-REDD+	Zambézia and Gaza	Fourth quarter of 2012
Define a range of RL scenarios with clear	UEM and MINAG (DNTF) coordinated by UT-REDD+	Maputo	Third quarter of 2013

assumptions BAU	including			
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Table 26 Budget for development of reference level To be developed

Table 3: Summary of Reference Level Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

Component 4: Design a Monitoring System

4a. Emissions and Removals

Standard 4a the R-PP text needs to meet for this component: Emissions and Removals

The R-PP provides a proposal and workplan for the initial design, on a stepwise basis, of an integrated monitoring system of measurement, reporting and verification of changes in deforestation and/or forest degradation, and forest enhancement activities. The system design should include early ideas on enhancing country capability (either within an integrated system, or in coordinated activities) to monitor emissions reductions and enhancement of forest carbon stocks, and to assess the impacts of the REDD strategy in the forest sector.

The R-PP should describe major data requirements, capacity requirements, how transparency of the monitoring system and data will be addressed, early ideas on which methods to use, and how the system would engage participatory approaches to monitoring by forest-dependent indigenous peoples and other forest dwellers. It should also address independent monitoring and review, involving civil society and other stakeholders, and how findings would be fed back to improve REDD-plus implementation. The proposal should present early ideas on how the system could evolve into a mature REDD-plus monitoring system with the full set of capabilities.

(FCPF and UN-REDD recognize that key international policy decisions may affect this component, so a staged approach may be useful. The R-PP states what early activities are proposed.)

Introduction

One of the main tasks of implementation of REDD+ and MRV is a common definition of forests that will minimize conversion. The substitution of natural and bio-diverse forests is partly with plantation of commercial forests, biofuels and more recently demand of land for soya cultivation is also increasing. The conversion of forest is made using the fact that 10% canopy cover and 5 m height differentiate what is forest from non-forest and the latter is considered convertible.

The concepts of degraded forests, deforestation, and degradation equally need clear, consensual and understandable definition. During consultation on MRV and reference levels, this definition should be discussed with stakeholders including communities, NGOs, law enforcement officers, forest sector technical staff, private sector and academia.

Objectives of monitoring, reporting and verification

Funding of REDD+ preparedness phase is activity oriented in order to establish the necessary conditions for subsequent performance based payments. The government of Mozambique, since the late 1990's, introduced legislation promoting sustainable forest management by all actors. However, one of the challenges of the process is the lack of a monitoring system to establish effectiveness in policy implementation. REDD+ is likely to give impetus to existing legislation, not only in terms of financing, but also establishing the necessary capacity to deliver the expected goals. Given the multi-sector nature of interventions to reduce deforestation and degradation and the multi-objective pursued in this mechanism, the monitoring systems need to encompass procedures, methodologies and capacity to assess progress in terms of containing emissions, contributing to conservation of biodiversity; improving livelihoods, providing alternative income generating activities and secure land rights.

Therefore, all options will be included in the monitoring in order to address the drivers of deforestation and degradation 2a through strategies and interventions in 2b:

- Reduction of emissions from deforestation;
- Reduction of emissions from forest degradation;
- Enhance of the role of conservation in maintaining biodiversity and sequestration of carbon;
- Maintenance of carbon sequestration functions through sustainable forest management implemented by local communities and private sector;
- Enhancement of carbon sequestration capacity through various forms of tree planting.

The reference level will define the baseline (considering biophysical, social and economic factors) from which positive or negative changes will be assessed, reported and verified. There are methodological challenges in defining national and sub-national parameters. However, the monitoring system will also contribute to introducing systems for collecting data that will fill in the gaps as well as providing a reliable source of assessing the impact of investment in REDD+.

The objectives of developing a monitoring, reporting and verification system include:

- Assess the net carbon stocks as result of REDD+ implementation at national and sub-national level.
- Establish a system for tracking additionality, permanence and leakages.
- Assess effectiveness of social and environmental safeguards and governance.
- Create a transparent, accurate, participative and verifiable system of data collection and reporting on emission reductions, co-benefits generated (poverty, biodiversity and sustainable development) and distribution.

There are four steps for the development of MRV: step one is the design of the REDD+ strategy and identification of data and capacity needs and methods for MRV; the second step comprises setting up the systems; the third step regards measurement and monitoring of REDD+ activities while step 4 is about reporting and verification of REDD+ activities.

The GHG and sources: some results from consultations

CO₂ is the main green gas house but others comprise CO, N₂O and CH₄. Burning biomass, soil fertilization, restoration of wetlands and use of plants to fix nitrogen are among the sources of the emission of these gases.

REDD+ is not a new panacea to a new problem, but an impetus for concerted efforts from all sectors of economy and decision-levels to raise the profile of impacts of deforestation and degradation and bring resources to address them.

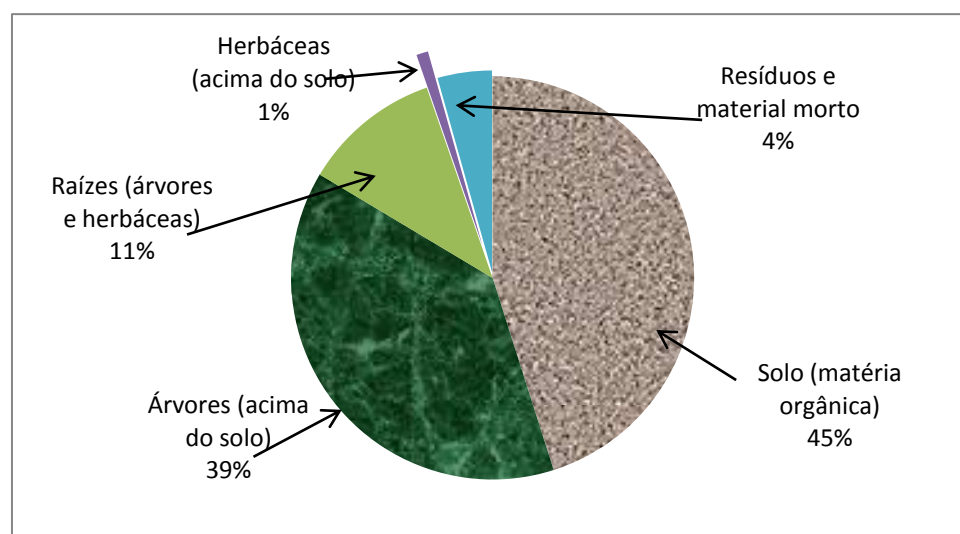
Consultation and data collection showed a number of common causes of deforestation and degradation, which include agriculture (commercial and subsistence, crop and livestock), biomass energy, illegal logging and hunting. The use of fire in various activities is common exacerbating the impact on emissions.

Carbon sinks

Forest ecosystems stock carbon above ground (trees including dead, shrubs, gramineae and herbaceous strata as well as on the soil (roots, organic and dead materials). IPCC (2003) recommends assessing three carbon sinks: biomass carbon of standing trees including roots and other vegetation types, biomass from dead trees and litter, and soil.

The choice of pools will be informed by capacity to identify and apply methods to assess the pools as well as the cost in terms of time, technical and financial resources. Studies conducted in miombo woodlands in Manica and Sofala indicate that carbon stocks are more significant in the soil than in the biomass above ground.

Figure 18 Carbon content in miombo forest in Manica



The table below presents the options that the country may consider pending further analysis of viability of measurements and monitoring during R-PP implementation.

Table 27 measurement of carbon stocks: what pools will be included?

Options	Carbon pools					
	Live biomass			Dead organic material		Organic soil
	Trees Above ground	Other plants Above ground	Roots	Litter	Dead wood	
	Y1	M2	SY	M4	M4	M5
Deforestation and degradation (forest management) *	Y1	M2	Y3	M4	Y4	M5
Avoided forest degradation	Y1	M2	Y3	M4	Y4	M5
Carbon sequestration (reforestation, agroforestry systems etc.)	Y1	M2	SY	M4	M4	M5

Legend

Y= changes in this carbon pool are significant and should be monitored

M= measurement and monitoring of changes might be necessary depending on forest type and management regime

1= use above ground tree biomass assessment method

2= use methods for assessing above ground non-tree biomass

3= below ground biomass assessment method

4= method for monitoring carbon in *litter and dead wood*

5=use of methods for measuring soil carbon

Source: Adapted from IPCC (2003)

* This includes REDD+ initiatives in conservation areas such as forest reserves; timber concession; areas under community management, etc.

Sampling

Pearson et al. (2005), IPCC (2003) and Segura & Kanninen (2002) stress that sampling is critical to obtaining credible and verifiable results. Samples can include setting up temporary and/or permanent plots, stratification, transects. Decision on form of these plots is as important and should be adequate for the carbon pool(s) being assessed. Geo-referencing of REDD+ initiative boundaries, description of biophysical conditions, socio-economic conditions including past and current land uses are important to understanding the dynamics and the risks of change in carbon stocks.

IPCC (2003) recommends setting up permanent plots to monitor carbon stocks above ground as it allows precise and exact measurements to be taken. Permanent samples are statistically robust and can facilitate verification, thus lowering the cost of the latter. There is, however, risk of embezzlement, with potential distortion of the natural dynamics and anthropogenic factors.

Monitoring of above ground biomass of other vegetation can be done in temporary plots representative of the region, eco-region or ecosystem.

Random, systematic or stratified are applicable to evaluating carbon stocks; on the other hand, the latter is more applicable in cases of monitoring different ecosystems and it increases precision and reduce costs of monitoring and verification.

Although Mozambique has been undertaking regular inventory (1970, 1990 and 2004) using sampling and remote sensing, there is no national network of permanent plots to monitor growth and other forest ecosystems dynamics. The Eduardo Mondlane University set up plots to monitor the effects of fire in growth of miombo woodlands in the central part of Mozambique, still their maintenance was difficult. Therefore, in choosing the plot types and location, there is the need to define clear responsibilities allocated to sub-national institutions such as IIAM out-posted research centers, sustainable development centers and provincial directorates of agriculture and environment.

Periodicity of monitoring

There are two levels of data necessary for monitoring performance of REDD+ initiatives. One requires measure undertaken by highly qualified personnel at regular intervals in order to establish comparability of changes as well as of costs associated. The second is continuous monitoring of relatively simple variables such as new land clearing for farming, illegal activities, etc. This does not require qualifications and communities can collect and record such information. Therefore, decision on periodicity of assessments has to be made based on further analysis of existing information and requirements of REDD+ MRV system.

The reference level

The reference level represents the emissions and removals that could be observed without REDD+. This is used therefore to establish the targets for reduction of emissions and increase of removals based on REDD+ stimulated interventions. As indicated in component 3, the projected reference level is the approach that Mozambique is likely to adopt.

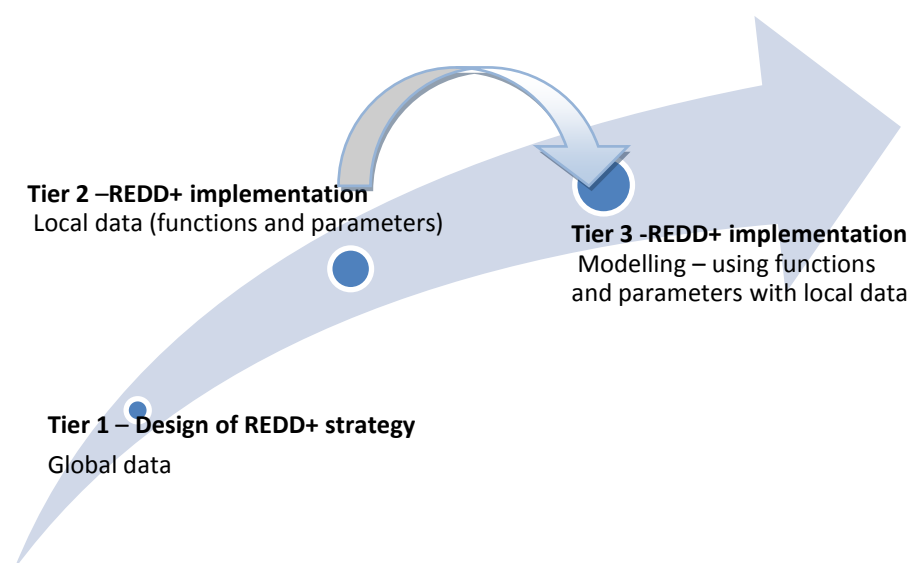
During the readiness process, the establishment of level of reference and monitoring system need to be synchronized so that future measurement on performance reflect verifiable crediting levels.

REDD+ monitoring approaches

a) Emissions and removals

Tier1, *Tier2* and *Tier3* are the UNFCCC approaches for assessing carbon stocks and changes as result of change in land use. These approaches have different levels of complexity, data collection and analysis, robustness of results and costs.

Figure 19 Measurement approaches



The analysis of approaches indicated that there are discrepancies between IPCC parameters based on average characteristics of tropical forests and characteristics of miombo and mopane forest that dominate the vegetation in Mozambique. Therefore, Mozambique will endeavor to define national parameters (*Tier 2*) and eventually use modeling (*Tier 3*) to forecast impacts of REDD+ activities.

Assessment of carbon can be done using direct methods which requires felling trees and other types of vegetation to determine biomass above and below ground. Either individual trees or plots of different forest types can be used to assess the biomass. Measurement of biomass below ground will depend on species root system. For example, the typical miombo species of *Julbernardia globiflora*, *Brachystegia longifolia*, *B. spiciformis*, *Julbernardia paniculata*, the root system can be as deep as 5 m and stretch for 15-27 m (Campbell, 1996).

This method is only suitable for research and it can also be undertaken in areas where harvesting for other purposes is taking place.

Remote sensing, aerial photography and conventional forest inventory are indirect methods requiring conversion of observed variables into biomass using equations and factors of biomass expansion. A factor of 0.5 is then used to estimate carbon stocks.

Mozambique has got two laboratories of soil analysis (UEM and IIAM) based on Walkley Black method. IPPC recommends the use of combustion of CO₂. These institutions would have to create conditions to respond to demand of REDD+ in relation to methods for measuring carbon.

In order to have a credible MRV systems Mozambique needs to address a few challenges dispersion of technical information in several ministries; frequency of measurements and establishment of additionality as well as ensuring that leakage is not generated elsewhere.

b) Socio-economic variables

Important variables to consider are: the change in land rights as result of REDD+, management structures and transparency of management systems; benefits of investments for reduction of emissions and of carbon payments; demographic information before the project and changes as a result of REDD+ (.e.g. displacement of people by private companies involved in REDD+); land uses, income, employment with and without REDD+. In all cases it is the measurements 'with' and 'without' that will generate information on net gains or losses.

The evaluation of these and other pertinent information can be undertaken using qualitative methods such as rapid/participatory rural appraisal with focus groups representing all strata within the community. Quantitative methods including surveys are important to define the baseline and for monitoring change in indicators as result of REDD+. Again, the involvement of the community members can contribute to ownership and more frequent recording of information than the formal processes can allow.

Reporting

This is a key component of REDD+ implementation. Transparency will be determinant to demonstrate performance regarding achievement of the goals of REDD+ including emissions, reduction and other co-benefits. Similarly to monitoring, this requires qualified personnel to analyze, interpret and document changes at sub-national and/or national. This should include coordination with climate change authority in order to produce national reports on net emissions of various GHG including CO₂. The potential performance based payments for communities and all other beneficiaries will be influenced by quality and objective reporting.

Verification

As indicated before, methodologies for estimating reference levels and for monitoring the different REDD+ variable are complex. Therefore, in the case of Mozambique, verification by independent and national institutions will certainly contribute to improve understanding on the dynamics of carbon of different ecosystems, the improvement of systems of data collection and analysis, and stimulate critical reflection on information management system. Besides, verification of emissions and removals, independent verification (this may include independent research institutions, consultancy companies among others) should analyze the environmental and social impacts as well as payments for carbon and benefit sharing.

Ongoing activities

a) Government initiatives

DNTF through the Department of Resources Assessment has been conducting regular (about 10 year interval) forest inventories. The main objective has been evaluation of geared towards assessing species and volume available for commercial purposes. Apart from national level inventories, there have also been detailed provincial level inventories at 1:250,000 in four provinces:

2004-2005 – Inhambane and Zambézia

2007- Manica and Maputo

This year (2011) UEM is conducting inventories in the provinces of Gaza, Inhambane, Sofala, Tete, Cabo Delgado and Nampula. In 2012 the inventory will be completed in the remaining provinces.

As previously indicated with JICA support, training (TOT) of national level staff (DNRI) on various aspects of MRV is underway for subsequent training of provincial level staff. Five (5) staff received one month training in Brazil (IMPA) and others will receive training in Japan. Testing of this knowledge will be done in the pilot areas (mapping of land uses, setting up MRV systems) identified during the R-PP consultation process.

Recently, the department also started national agro-ecological zoning first at scale of 1:1,000,000 in 2008-2009. Currently this activity is being undertaken at 1:250,000 with the following schedule:

2010 – Zambezia – zoning conducted and report to be released soon.

2011- Sofala, Cabo Delgado and Nampula

2012 – Niassa, Tete and Manica

2013 – Inhambane, Gaza and Maputo

b) Private sector initiatives

Private sector and international NGOs are showing interest in engaging in REDD+ pilot. Carbon Verifier/Mozambique Carbon Initiative, in partnership with Eduardo Mondlane Foundation (British Capital), intends to implement market based (voluntary carbon market) REDD+ initiative including all pilot areas identified during the consultation process. The company has started assessing carbon stocks and planning socio-economic studies.

A Norwegian company in Mecubúri (Nampula), Fauna and Flora International in Niassa, French Forest Agency in Gilé (Zambézia) and other companies in Cabo Delgado, by the same token, intend to manage these pilot areas.

The main challenge with these processes is that the country does not as yet have a defined methodology for assessing carbon stocks in different land uses, carbon rights need clarification and legal instruments, benefit sharing mechanisms are yet to be discussed, the overall readiness plan and safeguards still needs consultations and definition of scenarios that the country will strive to achieve. Consequently, the current opportunistic grabbing of carbon rights will hamper the government's capacity to evaluate technical soundness of these 'investments' and monitor implementation. In addition, these may perpetuate the divide between those who will benefit from carbon credits and those who will endure the cost of land use change, in particular smallholders.

Existing capacity and need for strengthening

The Ministry of Agriculture at national, provincial and district level plays a key role in information management related to crop production, livestock, forests and lands. The sub-national (SPGC and SDAE) levels are responsible for data collection while the capacity for processing and analyzing information is at national level. There is need to build capacity at sub-national level to decentralize data analysis, monitoring and reporting on impacts of REDD+.

Table 28 MRV: existing capacity

Institution	Technical capacity
MINAG- DNTF	The Department of Resources Assessment (UIF) is responsible for conducting national inventories at national scale as well as provincial and regional level; processing and analysis of satellite imagery on forest cover, definition of forest use categories and production of forest maps. This unit is equipped with human resources to assess changes in forest cover and use.
MINAG-CENACARTA	Satellite images, cartography, teledetection. High capacity to process and distribute the images, produce land cover and land use maps, including changes.
MINAG-DINAGECA	National registry of land occupation. Management of land information system; maintains databases of land use certificates (DUAT) and other recognized forms of land use rights. Operations at provincial level are undertaken by the Services of Geography and Cadastre (SPGC) which collects georeferenced data in the field and registers land occupation. Initial draft maps are produced, however most information is yet to be digitized. While the certificate is issued to a certain use, in reality the use at time is different.
MINAG-IIAM	The National Institute for Agriculture Research has a Department of Land and Water, equipped with human capacity and materials for soil analysis. This capacity can be used to assess change of carbon stocks as result of current uses and adoption of REDD+ activities. IIAM also plays an important role in identifying viable technologies and best practices in agriculture, livestock and forest activities.
UEM-FAEF-DEF – Department of Forestry of Eduardo Mondlane University	Research on various forest issues including remote sensing and aerial photography to assess vegetation, changes in forest cover, forest degradation, change of species composition, assessment of forest biomass and stocks of carbon in the forest ecosystems, simulation of land use change and carbon and other aspects. DEF has the capacity to develop national parameters to apply in tier2 and tier3. UEM also offers training to institutions at national and local level including communities on MRV including formulation of methodological guidelines for assessing carbon and related activities.
MICOA-CDS-ZC	Applied research on integrated management of coastal resources including coastal forests and mangroves. High capacity of analysis and processing of satellite images and production of land use maps and changes that occur along the coast.
Private universities in Sofala and Nampula	Equipped with GIS facilities and human capacity.

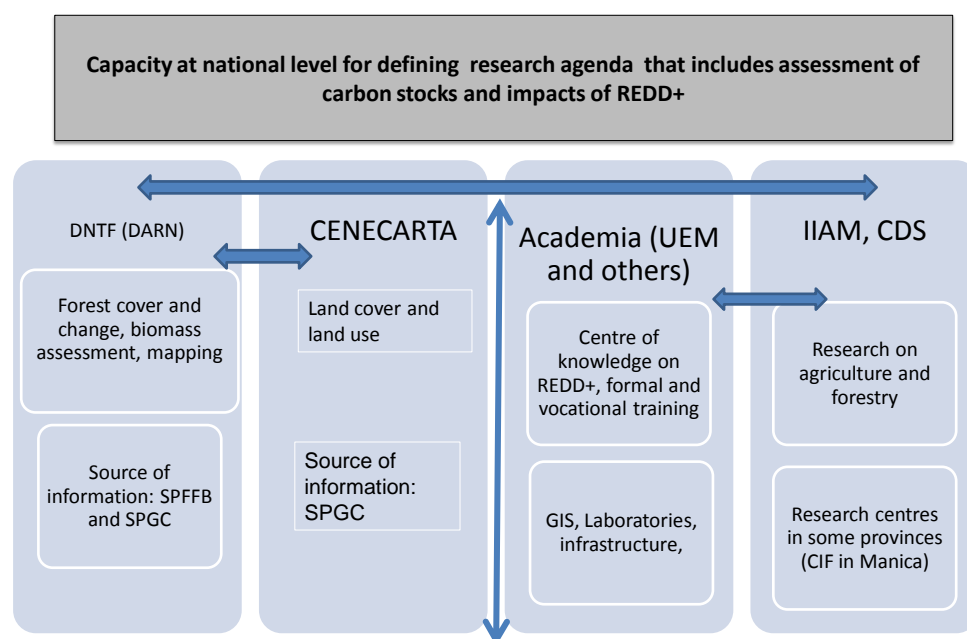
IPCC produced guidelines for implementation of REDD+ and assessment of changes of carbon resulting from human activities. The implementation of these guidelines requires capacities in various aspects including

- Understanding the readiness plan and strategy and drivers being addressed
- Clear national definitions of structure, composition and forest dynamics;
- Understanding methodologies for determining reference levels at national and sub-national level to be used MRV;
- Tools applied in forest inventory;
- Functional laboratories of Arc GIS, cartography, interpretation of satellite images and subsequent mapping
- Spatial and temporal analysis of resources dynamics and modeling

MRV structure within the UT-REDD+

The structure of REDD+ implementation presented in 1a indicates that there should be a Technical Review Committee. This committee should review the MRV reports of sub-national REDD+ activities and consolidated national results. The structure highlights further the need for horizontal and vertical coordination of the existing institutions to rationalize the use of resources, but also to strengthen the ability of addressing the challenges of REDD+.

Figure 20 Institutional coordination and rationalization of existing capacities



Besides UEM, it is important to explore other public or private institutions such as Catholic University in Sofala with GIS facilities and capacity, University of Lúrio, Zambezi, UCM and Polytechnic Institute of Manica (ISPM).

The MRV department within the UT-REDD+ should, among others facilitate capacity building and technical abilities for MRV, establish a data base and a system of information sharing related to forest ecosystems and other wooded lands.

4b. Multiple Benefits, Other Impacts, and Governance

Existing systems of collection of data on socio-economic indicators

Multiple benefits will be determinant to adherence of land users to change their practices and contribute to mitigation of climate impacts. Socio-economic benefits such as discussed elsewhere can include diversification of livelihoods; increased productivity and production; employment, increased income, food security and reduction of poverty are important tangible incentives. However, REDD+ also include benefits such as ownership of land resources and services, participation in decision making, improvement of governance in the forest sector, cross-sector coordination to address emissions resulting from land use change.

Mozambique has got a system of national accounts for which information on performance of the economy (production, services, market, etc.) and provides key indicators of how the economy is progressing. GDP total and per capita, population growth and distribution, poverty (%) levels are used for that purpose. The National Bureau of Statistics (INE) produces these annual statistics based in data collection through surveys at household level and information provided by the private sector.

Since the year 2003 there has been discussion on the need to reflect the use of natural capital to generate this wealth, thus the sustainability of the economy. Methodologies for constructing a parallel system of national accounts were experimentally applied in forests, lands, fisheries, agriculture, tourism, wildlife and water. This was a collaborative effort of academia, international NGOs and INE. In 2009 a more encompassing study was undertaken to assess the sustainability of the economy.

The population census not only covers demographics but also provides information about major activities undertaken by households as well as dependence on natural resources, in particular for energy and informal employment.

MINAG through DNEA conducts periodical agriculture sector census and policy analysis. This indicates trends in land allocation, cultivation, production of subsistence and export crops, assessment of prices of inputs and outputs, value of production, coverage of extension services, etc.

Various academic and research institutions along with NGOs undertake studies (often site specific) in agriculture, forests, various economic aspects, socio-cultural and governance. There are institutions such as Centre for Public Integrity (CIP), Amigos da Floresta (Friends of Forests), CTV (an environmental advocacy NGO, Forum Terra, ORAM, CBNRM Forum etc dedicated to analyzing for example the environmental impact assessments and their implementation, decision making and transparency on allocation of concessions and contribution of extractive industries to the country's economy, creation of platforms for discussion on rights and benefit sharing mechanisms and other aspects. The Institute for Economic and Environmental Studies (IESE) produces comprehensive reports of the state of the national economy and has engaged all stakeholders in discussions about the performance of the economy and the extent to which poverty is being addressed.

As regards governance, the Government also has a Technical Unit for Public Sector Reform (UTRESP) responsible for monitoring implementation of the anti-corruption legislation and reporting on progress in addressing malpractices.

Assessment of REDD+ impacts on livelihoods and governance

The previous chapters highlighted that indicators of REDD+ performance will be defined and subject to consultation. The latter will also identify indicators that different stakeholders including community members can record.

While REDD+ presents opportunities for improving land use and management as well as people's wellbeing, there are several risks of negative environmental and social impacts. In the case of Mozambique, there are already companies requesting licenses 'to explore carbon and state that they do not need to have certificate of use rights'. This can disenfranchise communities from one of the potential benefits from their resources.

Therefore, *Environmental Assessment* (OP 4.01) sets the frame for evaluating 'environmental and social soundness and sustainability of investment projects and support integration of environmental and social aspects of projects into the decision making processes'.

In Mozambique living in rural or peri-urban areas is a significant division between those who have access to services and the ones excluded. The excluded communities often are vulnerable in many respects.

The *Indigenous Peoples (forest dependent communities)* (OP 4.10) is aligned with community rights to be consulted prior to allocation of resources to third parties including to the state (e.g. conservation). In this context, the process of free, prior, and informed consultation goes a step further in highlighting that effective consultation can only happen if all parties understand the issues at stake.

Communities are either resettled to pave way to private or public investment (plantations or conservation) are simply pushed away to marginal lands in terms of productivity. There are conflicts in Niassa and Nampula between communities and commercial plantation companies. Mozambique's legislation is not clear regarding the minimizing of the need to resettle communities or compensation levels for the displaced people. Adoption of Involuntary Resettlement (OP 4.12) will contribute to reducing losses of livelihoods and standards of living. Combination of these instruments with the UN-REDD and Care International safeguards will facilitate discussions and identification of key principles and indicators relevant for the national and sub-national contexts.

Box 2 REDD+ Safeguards

UN-REDD safeguards

Principle 1 – Democratic governance: the program complies with standards of democratic governance (participation, transparency, accountability, rule of law, etc.)

Principle 2 – Stakeholder livelihoods: the program carefully assesses potential adverse impacts on stakeholders' long-term livelihoods and mitigates effects where appropriate

Principle 3 – Policy coherence: the program contributes to a low-carbon, climate-resilient and environmentally sound development policy, consistent with commitments under international conventions and agreements.

Principle 4 – Protect and conserve natural forest: the program protects natural forests from degradation or conversion to other land uses, including plantation forest

Principle 5 – Maintain and enhance multiple functions of forest: the programme increases benefits delivered through ecosystem services and biodiversity conservation

Principle 6 – Minimize indirect adverse impacts on ecosystem services and biodiversity

REDD+ SES

Principle 1. Rights to lands, territories, and resources are recognized and respected by the REDD+ program.

Principle 2. The benefits of the REDD+ program are shared equitably among all relevant rights holders and stakeholders.

Principle 3. The REDD+ program improves long-term livelihood security and well-being of Indigenous Peoples and local communities with special attention to the most vulnerable people.

Principle 4. The REDD+ program contributes to broader sustainable development, respect, and protection of human rights and good governance objectives.

Principle 5. The REDD+ program maintains and enhances biodiversity and ecosystem services.

Principle 6. All relevant rights holders and stakeholders participate fully and effectively in the REDD+ program.

Principle 7. All rights holders and stakeholders have timely access to appropriate and accurate information to enable informed decision making and good governance of the REDD+ program.

Principle 8. The REDD+ program complies with applicable local and national laws and international treaties, conventions, and other instruments

Table 29 Schedule for monitoring of RPP implementation

Activity	Responsibility	Location	Time frame
Carbon stocks measurement, sampling, frequency	UEM and MINAG (DNTF) coordinated by UT-REDD+	Maputo	Fourth quarter 2013
Socio-economic variables and measurement approaches	UEM and MINAG (DNTF) coordinated by UT-REDD+	Maputo	Fourth quarter of 2013
Capacity building – remote sensing and other approaches to assessment of carbon stocks and credits	UEM and MINAG (DNTF) coordinated by UT-REDD+	Maputo	2012- 2014
Development of safeguards	UT-REDD+	Maputo	2013-2014

Table 30 Budget for monitoring of performance and effectiveness in implementation of RPP

Table 4-1: Summary of Monitoring Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

Component 5: Schedule and Budget

Standard 5 the R-PP text needs to meet for this component: Completeness of information and resource requirements

The R-PP proposes a full suite of activities to achieve REDD-plus readiness, and identifies capacity building and financial resources needed to accomplish these activities. A budget and schedule for funding and technical support requested from the FCPF and/or UN-REDD, as well as from other international sources (e.g., bilateral assistance), are summarized by year and by potential donor. The information presented reflects the priorities in the R-PP, and is sufficient to meet the costs associated with REDD-plus readiness activities identified in the R-PP. Any gaps in funding, or sources of funding, are clearly noted.

Table 31 Schedule for implementation of the RPP

Activities	2012				2013				2014	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Component 1 Institutional arrangement and consultations										
<i>C1a institutions</i>										
National and sub-national institutions										
Cross-sector engagement										
Capacity building for personnel in REDD+ units										
<i>C1b Information sharing</i>										
Capacity needs assessment										
Design capacity building programme										
Training delivery to different actors including communities										
Documentation and dissemination of lessons										
<i>C1c Consultations</i>										
Institutional arrangements at sub-national level										
Carbon rights, benefit sharing and conflict management										
Role of private sector in REDD+										
Free, prior and informed consent										
Governance of forest and environmental sectors										
Delivery models, tradeoffs, transaction and implementation costs										
Performance indicators										
Strategic Environmental and Social Assessment										
C2 REDD+ Strategy										
<i>C2a Drivers of deforestation and degradation</i>										
Mapping land use and rights holding										
Land use trends and practices										
Viable technologies for improving productivity and management										
Implement the identified pilot initiatives										
<i>C2b Strategy to address drivers</i>										

Definition of delivery models and viability										
Definition of performance indicators										
Legal instruments on carbon credits and benefit sharing										
C2c Implementation framework										
Analysis of carbon rights in REDD+ and CDM										
Explore partnerships (FCCC, CCD, CBD) and building on existing interventions to deliver REDD+										
Beneficiaries of REDD+: who, why and how										
Define carbon accounting units and assessment of leakages										
C2d Environmental and Social assessment										
Conduct strategic environmental and social assessment of REDD+										
Design environmental management framework programme										
C3 Reference level										
Conduct sub-national studies on land use, carbon assessment and definition of national parameters TIER 2 and 3										
Definition of reference level scenarios										
C4 Measurement, Reporting and Verification										
Define sampling and periodicity of measurement of carbon stocks										
Definition of socio-economic variables to assess and approaches (qualitative and quantitative)										
Capacity building programme										
Define safeguards										
C5 Operations and management of R-PP										
Establish procedures and processes, accountability and reporting										
C6 Monitoring and evaluation										
Define indicators and periodicity of assessment of progress										

Summary budget

Component	US\$
1. Institutional arrangements and consultations	800,000
2. REDD+ strategy	1,000,000
3. Reference level	500,000
4. Measurement, Reporting and Verification	600,000
5. Operations and management of RPP	300,000
6. Monitoring and evaluation	100,000
Total	3,400,000
Piloting REDD+ (Manica, Gaza, Sofala, Nampula, Zambezia and Niassa)	3,000,000-4,000,000

Table 32 Detailed schedule, budget and allocation across donors

Table 5: Schedule and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
Component 1	Institutional	\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

Component 6: Design a Program Monitoring and Evaluation Framework

Standard 6 the R-PP text needs to meet for this component: Design a Program Monitoring and Evaluation Framework

The R-PP adequately describes the indicators that will be used to monitor program performance of the Readiness process and R-PP activities, and to identify in a timely manner any shortfalls in performance timing or quality. The R-PP demonstrates that the framework will assist in transparent management of financial and other resources, to meet the activity schedule.

To be developed

Table 6: Summary of Program M&E Activities and Budget						
Main Activity	Sub-Activity	Estimated Cost (in thousands)				
		2011	2012	2013	2014	Total
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
		\$	\$	\$	\$	\$
Total		\$	\$	\$	\$	\$
Government		\$	\$	\$	\$	\$
FCPF		\$	\$	\$	\$	\$
UN-REDD Programme (if applicable)		\$	\$	\$	\$	\$
Other Development Partner 1 (name)		\$	\$	\$	\$	\$
Other Development Partner 2 (name)		\$	\$	\$	\$	\$
Other Development Partner 3 (name)		\$	\$	\$	\$	\$

**Table 6-2: UN-REDD Joint Programme Monitoring Framework (JPMF):
Potential tool for all countries, and required for UN-REDD countries**

Expected Results (Outcomes and Outputs)	Indicators (with baselines and indicative timeframe)	Means of Verification	Collection methods (with indicative timeframe and frequency)	Responsibilities	Risks and assumptions
From country Results Framework or R-PP components	From Results Framework or R-PP components. Baselines are an indicator at the start of the joint programme	From identified data and information sources	How is it to be obtained?	Specific responsibilities of participating UN organizations (including shared results)	Summary of assumptions and risks for each result

Suggested Annexes for the R-PP (Optional)

Annex 1a: National Readiness Management Arrangements

Institutional arrangement for REDD+ delivery at sub-national level

Background: implementation of REDD+ will require high level coordination capacity at national level to ensure alignment of sectoral policies and to set up accountability systems. On the other hand, implementation of land use change and assessment of impacts resulting from REDD+ requires significant capacity at local level.

Key tasks to undertake:

- Assess existing capacity at provincial level.
- Assess effectiveness of coordination institutions and accountability systems (upwards and downwards).
- Design sub-national institutional arrangements in consultation with stakeholders
- Design processes of recruitment of personnel and management procedures (if appropriate)

Annex 1b: Information Sharing and Early Dialogue with Key Stakeholder Groups

Additional documentation of process can be found in:

- Reports of South-South REDD+ reports in the IIED website – June 2010 by Isilda Nhantumbo and Duncan Macqueen, June 2011 by Duncan Macqueen
- REDD+ Action Plan for Mozambique developed in the sequence of early dialogue – REDD+ working group
- How is REDD+ unfolding in Southern Africa's dry forests? A snapshot from Mozambique by Sheila Wertz-Kanounnikoff (CIFOR), Almeida Siteo (UEM), Alda Salomão (CTV)

DRAFT

Annex 2a: Assessment of Land Use, Forest Law, Policy and Governance

The analysis in this chapter was based on studies undertaken by three teams, one for each region. Background information was also produced.

a) On drivers – forestry, agriculture, energy, mining and infrastructure

Rombe-Bandeira, R. D. Cugala and M. Farahane (2010). Land use and drivers of deforestation in Niassa and Nampula – North of Mozambique. Two reports in Portuguese.

b) Role of agriculture

Massingue, F and R Borguete (2010). Role of Agriculture in deforestation in Tete and Sofala – centre of the country. Report in Portuguese

Chilundo, M. Massingue, F., R. Borguete and P. Mungumabe (2010). Role of Agriculture in deforestation in Gaza and Maputo – South of the country. Report in Portuguese

c) On policies

Nhantumbo, Isilda (2010). Scope and Scape of REDD+: options for Mozambique (Abrangência e a escala das estratégias de REDD – opções para o Governo de Moçambique). Elaborado para o IIED em apoio ao Grupo de Trabalho da REDD. Nota para apresentação no segundo Seminário do REDD, 2010

Nhantumbo, Isilda e Samira Izidine (2009). Preparing for REDD in dryland forests: Investigating the options and potential synergy for REDD payments in the miombo eco-region. Mozambique country study. IIED/PROFOR.

Nhantumbo, Isilda (2010). REDD+ in Mozambique: opportunity to revitalize CBNRM in Mozambique. In Portuguese. RIEM 4. Policy brief on REDD+ process.

Annex 3: Develop a Reference Level

Analysis of potential application of IPCC methodology for reference level definition was.

Sitoe, A. and B. Guedes (2010). Development of reference scenario. Background document in Portuguese.

Annex 4: Design a Monitoring System

Sitoe, A. and B. Guedes (2010). Basis for development of MRV in Mozambique. Background document in Portuguese.

Sitoe, A. and B. Guedes (2010). Deforestation: reference level and MRV systems. In Portuguese. RIEM 5. Policy brief on REDD+ process.

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