

#### Republic of Mozambique

Ministry of Coordination of Environmental Affairs (MICOA) and Ministry of Agriculture (MINAG)

# Mozambique REDD-Plus Readiness Preparation Proposal (R-PP)

# Draft presented to the Tenth Participants Committee

Draft Mozambique RPP - Berlin, 17-19 October 2011

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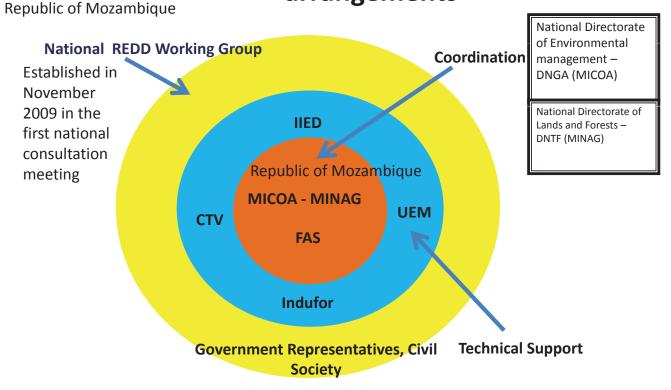


## **Context**

- 790 380 Km², 23 million people
- 71% vegetation cover
- 410 000 Km² (51%) forest cover
- 269 000 Km<sup>2</sup> commercial forest
- 16% of terrestrial and marine protected areas (national parks, forest reserves, game reserves, hunting areas)
- 360 000 Km<sup>2</sup> of arable land
- 30 000 Km<sup>2</sup> with potential for plantations (pulp, paper and timber, energy and conservation)



# 1a. National Readiness Management arrangements



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# Articulation between the Working Group and policy making structures

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- Council of Ministers all Ministers, *Chaired by the President*. High level decision-making on policies, legislation, strategies, long term plans, budget before submission to parliament for final approval
- National Council for Sustainable Development (CONDES) Chaired by Prime Minister and Minister
  of Environment as Co-Chair, Ministries debating environmental sustainability of development
  intervention; secretariat under MICOA
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**Technical Council of National Council for Sustainable Development (CONDES)** - Chaired by *Vice-Minister of Environment* - Secure cross sectors' ownership of various processes including REDD+

- Consultative Council Senior Staff of MICOA, Chaired by Minister of Environment
  - Representatives of MINAG participated in discussion on REDD+: Process, technical, policy and institutional issues
- REDD+ Working group



# Strengthening cross-sector coordination and technical capacity

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- Key ministries coordinate REDD+ strategy development and implementation:
  - MITUR (DNAC/ANAC conservation), MINE (DNENR- renewable energy),
  - MAE (DNPDR- rural development, INGC-disaster management, DNOL- local institutions), MPD (decentralized planning)
  - MIC (Small and medium enterprises)
  - Private sector (FEME/CTA), NGOs, community representatives (COGEP) indigenous people in Mozambique is not a relevant issue

#### Establish a Technical REDD+ Unit

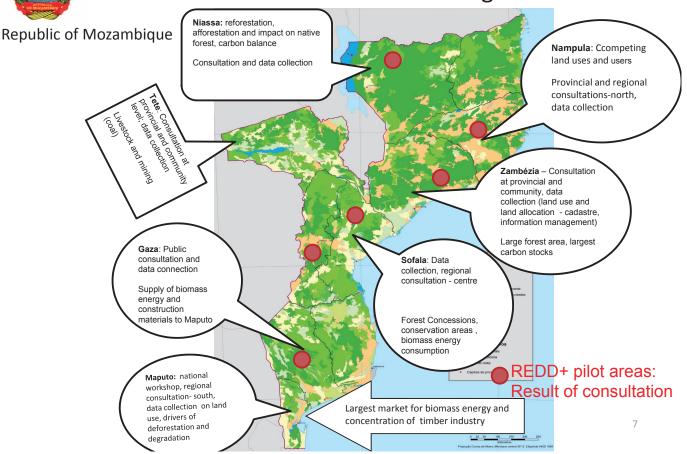
- Efficiency, transparency and accountability systems
- Minimum 20 technical positions to coordinate REDD+ at national level natural resources or environmental economists, agronomists, foresters, natural resources manager, GIS and remote sensing, financial management, carbon financing, community development, conservation, SFM

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Chair - Vice-Minister of MICOA Republic of Mozambique Technical Council of CONDES = National REDD+ Council **Technical** Government, academia and research, private sector, Review NGOs and Bank (observer) - REDD+ priorities and Committee sector coordination (current Working Group) Bank (managing **REDD+ Technical Unit** REDD+ funding -Administration **Implementation MRV** of process and finances Sustainable forest Enrichment of Degradation Deforestation management and Academia and research carbon stocks conservation institutions at central and local level Provincial, District and COGEP - REDD+ delivery at sub-national level organization of community structures and governance; capacity building on sustainable enterprises (agriculture, energy, timber, NTFP,...), access markets, benefit sharing

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# 1b. Information sharing and early consultation: Drivers of deforestation and degradation





# Information sharing and consultation on...

- Concept of REDD+, scope and scale of REDD+,
- Policy, legal and institutional framework: existing opportunities and gaps, lessons from existing benefit sharing
- Reference levels: forest inventory, deforestation rates, degradation and challenges of assessment, drivers
- MRV: IPCC guidelines, what do they mean for the country, parameters,
- Capacity at national and provincial levels
- Pilots



# 1c. Consultation and participation

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- Awareness raising of government ministries
  - still key priority for policy harmonization and mainstreaming REDD+ intervention into sectoral plans
    - CONDES and individual sector
- Private sector participation needs to improve showed lack of interest in early consultations
- Academia public and private universities, particularly in the provinces
- NGOs and local community representatives

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# 1c. Consultation and participation

- Carbon rights
- Strategic Environmental and Social Assessment
- Costs of REDD+ delivery
- Benefit sharing
- Implementation unit at sub-national level
- Indicators of REDD+ impacts (beyond carbon)
- Reference level, MRV and information management systems
- Conflict management



## 2a. Assessment of Land Use, Forest Law, **Policy and Governance** Republic of Mozambique

MAPA FLORESTAL POR ZONAS ECOLOGICAS

- Population growth 2.3%, highest in Nampula
- 60% population rural shifting cultivation 3 mil. ha
- 80% pop. consume biomass energy 23 mil. m³/yr –Maputo, Beira and Nampula cities
- 400 commercial farmers cultivate 1.5 mil ha (sugar cane, cotton, tobacco)
- 179 timber concessions 5-6 million ha
- Annual/simple licenses growing (shifting timber harvesting) – timber, poles, biomass energy – about 600
- Nearly 200 thousand m<sup>2</sup> harvested per year
- Deforestation 0.58% (219000ha/yr) -1994-2004; up from 0.21% 1970-1994, highest in Maputo and Nampula

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# Deforestation

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Province	Forest cover and other wodded lands 1990 ('000 ha)		Annual change in forest and other wooded lands ('000 ha)		
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

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# **Drivers**

#### Direct

#### Deforestation

- Unsustainable agriculture practices throughout the country
- Unsustainable production of biomass energy and inefficient consumption (Maputo, Nampula, Beira in particular)
- Infrastructure (settlements, roads, electricity transmission from Cahora Bassa Dam-Maputo)
- Mining (and settlements (horizontal expansion of urban areas)

#### Degradation

- Fire (nearly 131 thousand fire points in 2009) - Zambézia, Niassa, Tete, Nampula, cabo Delgada, Sofala and Manica
- Unsustainable logging practices
   (Zambézia, Cabo Delgado, Nampula,
   Sofala)

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#### Deforestation

Limited extension network

**Indirect** 

- Demand for commodities in international markets
  - Renewable energy EU targets
     land for biofuels (Cabo
     Delgado, Nampula, Zambézia,
     Manica, Sofala)
  - 6 mil. ha being negotiated with Brazilian farmers to produce soya, maize (Cabo Delgado, Nampula, Zambezia,

#### Degradation

- Negligible royalties and investment policies (poor taxation)
- Poor enforcement of SFM and environmental management plans
   Berlin, 17-19

# Underlying causes

- Population
  - growth and concentration along the coast (50 km) and urban areas
  - Increase in rural-urban migration and settlements
- Poverty
  - 54% of population below poverty line and purchasing power of alternative energy sources
- Limited access and affordability production technologies
  - Low productivity, low yields, low efficiency of charcoal production and consumption
- Growing demand for commodities in the international markets
- Consumer preferences in the domestic and international markets
- Poor governance in the natural resources use and vested interests



## Past interventions to capitalize on

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- Community woodlots and agroforestry
  - without clear information of social and cultural issues underpinning use of natural resources (80's)

#### CBNRM

- About 70 experiences, SFM, short terms support, no recognition hence no accounting and compensation for biodiversity and emissions reduction benefits
  - Viability analysis indicated at least 7 years investment before positive net returns could be obtained (Madjadjane and Chipanje Chetu)
- Community delimitations about 5 mil. ha with DUAT agriculture and forest activities
- 20% of royalties; about 50% of 1000 communities eligible received

#### Presidential Directive

- one pupil one tree and one community leader one forest plantation of timber and fruit trees
- Plan Vivo private developer (Envirotrade)
  - Nhambita and expanding to other areas; 1/3 of carbon credits to communities, payments for 7 yrs with a 100 contract (sustainability?)
  - Agroforestry systems adopted

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# Policy and legal framework Sectoral Extra-sectoral

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#### Land

- Customary land rights, delimitation and demarcation, gender equity
- Consultations for allocation of land for investment and protection

#### Forestry and wildlife

- Community Based NRM, and 20% royalties to communities
- Concessions (management plans and value addition)
- Reduce annual licenses
- 15% reforestation levy
- Reforestation action plan industrial plantations

#### Environment

- Consultation on EIA and management plan implementation
- Environmental audit, strategic environmental impact assessment
- Education, gender

#### Tourism

- Protected areas for conservation and contribution to economy
- Conservation policy ANAC independent unit

#### Agriculture and rural development

- Sustainability in resources use
- Increase production and productivity

#### Energy

- Renewable energy including biofuels (???) as alternative
- Mining
  - Good practices but poor implementation of environmental management plans

#### Infrastructure

- settlements, road and rail network, electrification
- Low impact vs low cost



# 2b. REDD+ Strategy options

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- Carbon rights legislation
- Land use mapping, determination of parameters for RL and MRV (information management systems)
- · Define biomass energy concessions and management requisites
- · Efficiency of processing and consumption of biomass energy including use of alternatives
- Increased land productivity (agroforestry, conservation agriculture,...)
- Scale up CBNRM and enterprise development
  - SFM, conservation and tree planting for rehabilitation of degraded areas
  - Capacity building fire management
- Support small scale timber operators to adhere to associations and forest concessions
- Participatory law enforcement of SFM practices in forest concessions and EMP (infrastructure, mining, ...)

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# 2c.d. SESA and implementation plan

- Further refinement of strategy options
- SESA of options and overall REDD+ implementation - safeguards
- Implementation plan
  - Establishment of UT-REDD+
  - Carbon rights, financing and benefit sharing mechanisms
  - Pilot projects



## 3-4. Reference level and MRV

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- DNTF-CENECARTA-IIAM-UEM: coordination and systematization of information
- Detailed data collection in Zambézia and Gaza to assess deforestation and degradation and establish RL, assesses information management systems at sub-national level
- Adjust RL based on the ongoing analysis (DNTF)
- Capacity development
  - Equipment and training of government staff
  - Training other institutions
- Indicators to include in MRV: beyond carbon stocks and change

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# Ongoing work for development of RL and MRV (DNTF)

Province	District 1	District 2	REDD pilots areas	RPP
Maputo	Matutuine	Magude		
Gaza	Bilene	Chicualacuala	$\sqrt{}$	RL and MRV sub-national: D due to biomass energy
Inhambane	Mabote	Vilanculo		
Manica	Gondola	Macossa		
Zambezia	Murrumbala	Gile	V	RL and MRV sub-national: D and D
Tete	Moatize	Tsangano		
Sofala	Gorongoza	Cheringoma	V	
Nampula	Mecuburi	Mossuril	V	
Niassa	Nuembe	Majune		
Cabo Delgado	Ancuabe	Montepuez		



# Budget

Norwegian Embassy in Maputo	JICA	FCPF L	IS\$	Observation on
		1011 000		request to FCPF
2009-2011 (USD)	2010 - 2013			1
South-South REDD (Moz-Brazil) - Phase I - 1.15 million	7 million – Capacity Building on management of forest information	1.Institutional arrangements and	1,400,000	To establish national and sub-national institutions
	management of forest information	consultations		Sub-Hational Institutions
Development of RPP of the current RPP		2.REDD+ strategy	600,000	Viability of strategic
Copenhagen (COP15) – South-South meeting	Equipment for DNTF and SPFFB	3.Reference level	400,000	options Zambézia and Gaza (sub-
Background papers		3. Reference level	400,000	national) covering districts
	Training for DNTF in Brazil and Japan			not included in the DNTF
Consultations – provincial, regional, community		4.Measurement,	600,000	study
Training at provincial and community levels	On the job training on participatory mapping for district officers	Reporting and Verification		
South-South Exchange with Brazil at policy and technical levels				
Study on DD and past actions in 7 provinces	Data collection in 20 districts to support development of reference levels and MRV system			
Durban - Plan				
MICOA, MINAG, CTV, UEM, FAS, INDUFOR, IIED		5.Operations and management of RPP	300,000	
		6.Monitoring and evaluation	100,000	
		Total	3,400,000	
Phase II request for pilot activities -		Piloting REDD+	3,000,000-	
<b>2012-2013</b> – <b>1.49 million</b> land use			4,000,000	
mapping, carbon stocks, socio-				
economic analysis, land and forest				
rights mapping, identify and implement feasible interventions, benefit sharing	Draft Mozambique RPP - Ber	lin 17-19		
mechanisms	October 2011	111, 17 15		21



# Republic of Mozambique National Directorate of Land and Forestry (DNTF), Ministry of Agriculture (MINAG)



Japan International Cooperation Agency (JICA)

# The Project for Establishment of Sustainable Forest Resource Information Platform for Monitoring REDD+

2012 - 2017







Of total land surface of Mozambique, approximately 51% is covered by forests, which is equivalent to 40 million hectares. Annual rate of deforestation in Mozambique is estimated at 0.58% per year (approx. 0.2 million ha) based on the data of forest area from 1990 to 2002 (Marzoli 2007) and is uprising year by year. The major causes of the deforestation are various – from small subsistence scale to large investment - over-exploitation to use wood for fuel including charcoal, setting fire for hunting and bee keeping, shifting cultivation, mining and converting to agriculture land. Deforestation and associated deterioration of the environment exacerbate the negative impacts on the vulnerable communities in poverty.

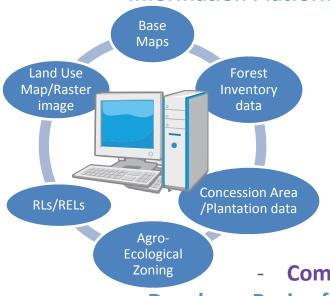
REDD+ was taken up as an important policy agenda for Mozambique with a hope to overcome those issues of poverty, deforestation and climate change. As a part of National REDD+ Strategy and National Forest Plan (NFP), DNTF in cooperation with JICA is now starting the project to establish the Forest Resource Information Platform under the National REDD+ Information Platform to be ready for REDD+. Please find main activities of the project as displayed on the back-page.



Further Info: Joaquim Macuacua: joaquimmacuacua@gmail.com, (DNTF), Yasuko Inoue: yasuko.inoue317@gmail.com (JICA)

#### Component 1 –

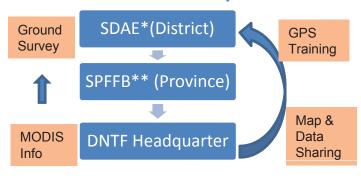
## Establish a database system functioning as the Forest Resource **Information Platform for Monitoring REDD+**



- (1) Create a database in DNTF GIS facility with a nationwide satellite image map and available forest and geographic information.
- (2) Produce forest cover and land use maps as Base Maps of the Platform initially for 2 provinces (Gaza and Tete) as pilots by Remote Sensing using optical satellite images and ground truth survey data.

## Component 2 -

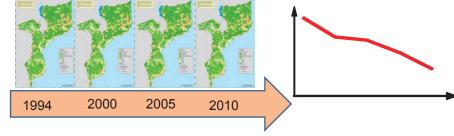
#### Develop a Basis of MRV for the Platform



- (1) Develop a technical capacity of Remote Sensing to detect forest cover change using SAR images in 2 pilot Provinces (Gaza and Tete)
- (2) Establish a ground monitoring system in 2 Districts in each of all 10 Provinces.

## Component 3 -

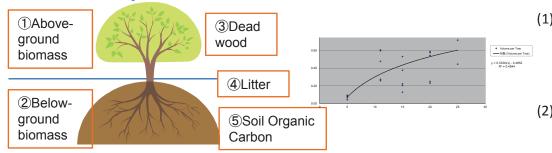
## **Create National RLs/RELs for the Platform**



- (1) Analyze national historical trends using Landsat images and inventory data
- (1) Produce RLs/RELs by modeling future projections

## Component 4 -

## Prepare data sets for biomass and carbon estimation



- (1) Collect biomass data of appropriate pools in representative forest ecosystems
- (2) Produce default values of biomass to estimate the carbon values