# Republic of Mozambique


**NATIONAL REDD+ R-PP IMPLEMENTATION MID-TERM PROGRESS REPORT AND REQUEST FOR ADDITIONAL FUNDING SUBMITTED TO THE FOREST CARBON PARTNERSHIP FACILITY (FCPF)**

**By the NATIONAL TECHNICAL UNIT OF REDD+,**

**Ministry of Land, Environment and Rural Development**

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# ASSESSMENT OF THE PROGRESS OF THE IMPLEMENTATION OF R-PP ACTIVITIES WITHIN THE FRAMEWORK OF FCPF FINANCIAL AGREEMENT

Contents

## Executive Summary

Mozambique is one of 47 countries selected by the World Bank Forestry Carbon Partnership Fund (FCPF) for preparing the legal and institutional grounds for reducing emissions from deforestation and forest degradation (REDD+). In 2009, the country has developed its REDD+ readiness preparation proposal (R-PP) composed of four fundamental components, namely: (i) organization and consultation (ii) preparation of REDD+ national strategy (iii) setting emissions reference levels (iv) setting a forestry monitoring system. In March 2012, the R-PP was approved by the FCPF and has been receiving funding for the implementation of R-PP activity components 1 and 2 since July 2013.

**The objective of this report** is to assess the progress of the implementation of R-PP activities as well as to submit a request for additional funding from FCPF. The information gathered for the preparation of the report was based on combined methods, namely the reviewing of reports and other documents regarding REDD+ process in Mozambique and in other countries, as well as from interviews conducted with the managers and the staff involved in REDD+ activities funded by FCPF and JICA.

The **balance sheet of FCPF funds** (USD 3.8 million) shows that up to 31st June 2015, 49%of the funds had already been used, and 70% were already committed. In order to fulfil R-PP objectives, the GoM is requesting additional funding. The additional funds will be used primarily to enable the UT-REDD+ technical team to: operate at the national and provincial levels, support public consultations and communication of activities, revise forestry legislation, implement pilot initiatives, establish national emissions reference levels (REL), establish a national forestry monitoring and verification system (MRV), and implement a grievance and redress mechanism (GRM). Other funding mechanisms (such as the FIP) are being planned for implementation stage activities that will contribute to the generation of emissions reductions. Such activities will be defined by the national REDD+ strategy.

The current FCPF grant finances activities aiming **strengthening the national readiness management arrangements**, **promoting multi-stakeholder consultations** and **preparing the National REDD+ Strategy**.

In August 2013, the Technical Unit for REDD+ (UT-REDD+), co-led by MICOA and MINAG (currently Ministry of Environment, Land and Rural Development - MITADER), was officially established by the National Decree 70/2013 ("Regulation on Procedures for Approval of Emission Reduction Projects of Deforestation and Forest Degradation - REDD+"), approved by the Cabinet in December 2013. This **unit has been strengthened with 8 full-time dedicated employees** in the last 6 months: i) a senior technical assistant; ii) a pilot project coordinator; iii) a coordinator for the Zambezia Program; iv) a coordinator for the Cabo Delgado program; v) a financial specialist; vi) a procurement specialist; vii) a communication specialist; e viii) a safeguards specialist. It is planned that by September a MRV specialist and a REDD+ Strategy technical assistance will also be hired.

The UT-REDD+ is also receiving technical support from other governmental institutions, as well as from the academia, civil society and the private sector. The National Steering Committee or **Technical Revision Committee (CTR) for REDD+** has the goal of strengthening the inter-institutional coordination among sectors and stakeholders, and is composed by representatives from the Ministry of Culture and Tourism, Ministry of Gender, Ministry of Education, Child and Social Action, Ministry of Industry and Commerce, Ministry of Economy and Finance, Ministry of State Administration and Public Function, Ministry of Justice, Constitutional and Religious Affairs, Ministry of Mineral Resources and Energy, as well as by representatives from the private sector, NGOs and research institutions. This committee has been having meetings but it is recommended that the committee participates more in the revision of technical documents and the preparation of the national Strategy.

In regards to the **promotion of multi-stakeholder consultations**, the government has conducted 22 public consultation related to the preparation of the National REDD+ Strategy at both national, province and district levels. And several **communication material** were produced and disseminated, including a website (http://www.redd.org.mz/), facebook page and publications. In addition, in 2014, the UT-REDD+ established a dialogue platform with civil society, private sector and NGOs in order to carry out communication and outreach programs and to discuss issues related with REDD+. The platform has shown to be an effective instrument to help disseminate and discuss the Decree 70/2013 and other REDD+ related issues.

A first draft of the **National REDD+ Strategy** is expected to be finalized by December and presented at the Paris COP. This Strategy is being prepared based on ongoing analytical studies (in-depth Analysis of drivers of deforestation, forest degradation and strategic option to address those drivers; Analysis of the legal and institutional framework for REDD+; a Strategic Environmental and Social Assessment (SESA) for REDD+, and the definition of forest), as well as on broad communication, consultation and outreach to several stakeholders.

The **Strategic Environmental and Social Assessment** (SESA) process currently underway serves as the strategic safeguards umbrella to ensure that environmental and social considerations are integrated in the formulation of the REDD+ Strategy and in all other REDD+ related programs. This process is recognized by the Government of Mozambique as critical for ensuring the enhancement of biodiversity conservation and the protection of the local communities from the potential impacts of REDD+ on their way of life and well-being. An **Environmental and Social Management Framework** (ESMF), a **Resettlement Policy Framework** (RPF) and **Grievance Redress Mechanism** (GRM) is also under preparation and is expected to be finalized in the first quarter of 2016.

**Monitoring, Reporting and Verification.** The establishment of the national MRV system is being supported by the Japanese International Cooperation Agency (JICA) through a project initiated in 2013 that aims to i) establish a Forest Resource Information Platform for monitoring REDD+; ii) develop the basis for MRV for the Platform; iii) create **RELs/RLs** for the Platform; and iv) prepare a data set of biomass and carbon estimates. The country is also currently reassessing its forest definition to better serve the purposes of REDD+.

**Two large-scale landscape / REDD+ Programs** have been identified by the national government: the Zambézia Integrated Landscape Management Program; and the Cabo Delgado/ Quirimbas Emissions Reductions Program. Other REDD+ initiatives are under implementation by other partners such as the one by the Envirotrade company in Sofala Province, and by. Since June 2015 UT-REDD had hired 2 technical officers to coordinate REDD+ activities in Cabo Delgado and Zambézia provinces, and created Provincial REDD+ Forums in both landscapes. The forums are already operational and ensuring consistency in the implementation of REDD+ between national and subnational levels.

**An additional amount of USD 5.2 million USD is being requested to the FCPF**. This additional funds would support activities related to the National REDD+ Coordination Unit, as well as the regional coordination units in Zambezia and Cabo Delgado provinces. Specifically, it would finance: (i) costs of UT-REDD+; maintenance of meetings and workshops; support the National Steering Committee (CTR); communication activities; and consultation activities. ii) strengthening Mozambique's forest governance; and iii) preparation of emissions reductions landscape programs.

# 1. INTRODUCTION

## Rational

Climate Change is a major topic in the international agenda and of increasing importance to international development. Recent findings reveal that 20% of the annual greenhouse gas emissions are due to deforestation and forest degradation. This number surpasses the emissions resulting from the world transport sector as a whole.

According to CIFOR, recent studies reveal that forests absorb at least 5 of the 32 billion tonnes of carbon dioxide annually emitted due to human activities. Deforestation and Forest Emissions Reduction Initiative (REDD+) is seen as the most efficient solution for the adaptation and mitigation of global warming caused by the greenhouse gas emissions.

Mozambique has vast areas that are rich in forests and other kinds of vegetation which make up about 70% of the territory. The annual forest loss is estimated at about 0.58%, equivalent to 219.000 acres according to the 2007 national inventory. This is more than double the number reported in 1994 (0.21%).

Mozambique is one of 47 countries across the world selected by the World Bank Forestry Carbon Partnership Fund (FCPF) for preparing the legal and institutional grounds for reducing emissions from deforestation and forest degradation (REDD+).

Mozambique has been involved in a long process of developing a REDD+ readiness preparation proposal (R-PP) composed of four fundamental components, namely: (i) organization and consultation, (ii) REDD+ national strategy preparation, (iii) establishment of emissions reference levels and (iv) establishment of a forest monitoring system. The R-PP was approved by the committee of FCPF participants in March 2012, and it instructed the World Bank to launch its '*due diligence' process in order to sign a donation agreement of USD 3.6 million for the implementation FCPF priority actions. As a result a World Bank Readiness Preparation Proposal Assessment Note* was signed , covering R-PP components 1 and 2 activities to be financed by FCPC funds, namely, (i) strengthening institutional capacity building for the management of REDD+ (ii) promotion of multi-sector public consultations and (iii) elaboration of REDD+ national strategy. The implementation of components 3 and 4 is partially funded by (JICA) Japanese cooperation and the government of Mozambique is co-funding the four components.

## Genesis of REDD+ in Mozambique

The process of REDD+ institutionalization in Mozambique started with the establishment of REDD+ working team in 2009, after the approval of R-PIN process submitted by the government of Mozambique to FCPF in March the same year. This team was made up of the former MICOA (current MITADER) and represented by the National Directorate for Environmental Management (DNGA); MINAG, National Directorate for Land and Forests (DNTF); Eduardo Mondlane University (Faculty of Agronomics and Forestry); Centro Terra Viva national NGO (CTV); the Sustainable Amazon Foundation (FAS, Brasil), the International Institute of Environment and Development (IIED, UK) and INDUFOR. The team's objective was to group together government partners, educational institutions, NGOs and the private sector as to allow for a participative dialogue.

REDD+ team work broadened and integrated the following institutions: Ministry of Tourism (MITUR), Ministry of State Administration (MAE), Ministry of Energy (MEnergia) Ministry of Women and Social Action (MMAS), Ministry of Planning and Development (MPD) Ministry of Finance, Ministry of Mineral Resources (MIREM) Ministry of Industry and Trade (MIC), Civil Society Organizations including The Community Development Fund (FDC), Organization of Mutual Aid (ORAM), The National Union of Farmers (UNAC), Mozambican Association of Loggers (AMOMA) International Union for Conservation of Nature (IUCN) Global Fund for Nature (WWF), Envirotrade (Iniciativa Plano Vivo), CTA/FEMA (private sector associations linked with the environment and economic activities) and international agencies such as DANIDA and JICA.

To ensure the support of the leadership during the assessment of the feasibility of R-PP, the members of the Working Group discussed a number of issues and produced important recommendations for decision making at the highest level of the Ministry for the Coordination of Environmental Action. The main result of the working group of REDD+ was the R-PP and its subsequent approval by the FCPF participants Committee in March 2012. Subsequently the Committee instructed the World Bank to launch the process of due diligence with a view to sign an agreement on a donation of 3.6 million for the implementation of priority actions included in R-PP components 1 and 2 considered by FCPF.

R-PP activities funded by the FCPF cover the period from 12th July 2013 to 30th July 2017. In accordance with the instructions of the FCPF, the country must draw up a progress report (Mid-Term Progress Report) and, if necessary, formulate a request for additional funds to cover gaps identified throughout the first phase of the implementation of activities.

## Objective of the report

The objective of this report is to assess the progress of the implementation of R-PP activities, as well as to submit a request for additional funds to the FCPF. More specifically this report aims to:

1. Make an overall assessment of the progress of the R-PP implementation;
2. Assess the progress achieved in R-PP activities, including the identification of any possible delays in the implementation of activities funded by FCPF, and action proposals for to address those delays;
3. Submit a financing plan for all activities of the R-PP and a brief description of the activities supported by other development agencies;
4. Develop a proposal to use additional resources, detailing the activities and budget;

Table 1. A Self-Assessment of Progress status of Mozambique's R-PP implementation

| COMPONENT | SUB-COMPONENT | PROGRESS STATUS |
|---|---|---|
| 1. READINESS ORGANIZATION AND CONSULTATION | 1a. National REDD+ Management Arrangements | Significant Progress |
| | 1b. Consultation, Participation, and Outreach | Progressing well, further development required |
| 2. REDD+ STRATEGY PREPARATION | 2a. Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance | Progressing well, further development required |
| | 2b. REDD+ Strategy Options | Significant Progress |
| | 2c. Implementation Framework | Progressing well, further development required |
| | 2d. Social and Environmental Impacts | Progressing well, further development required |
| 3. REFERENCE EMISSIONS LEVEL/ REFERENCE LEVELS | 3a. REL/RL | Progressing well, further development required |
| 4. MONITORING SYSTEMS FOR | 4a. National Forest Monitoring System | Progressing well, further development required |

| | | |
|---|---|---|
| FORESTS, AND SAFEGUARDS | 4b. Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards | Further development required |

# 2. ASSESSMENT OF THE PROGRESS ACHIEVED IN THE IMPLEMENTATION OF THE ACTIVITIES OF THE R-PP

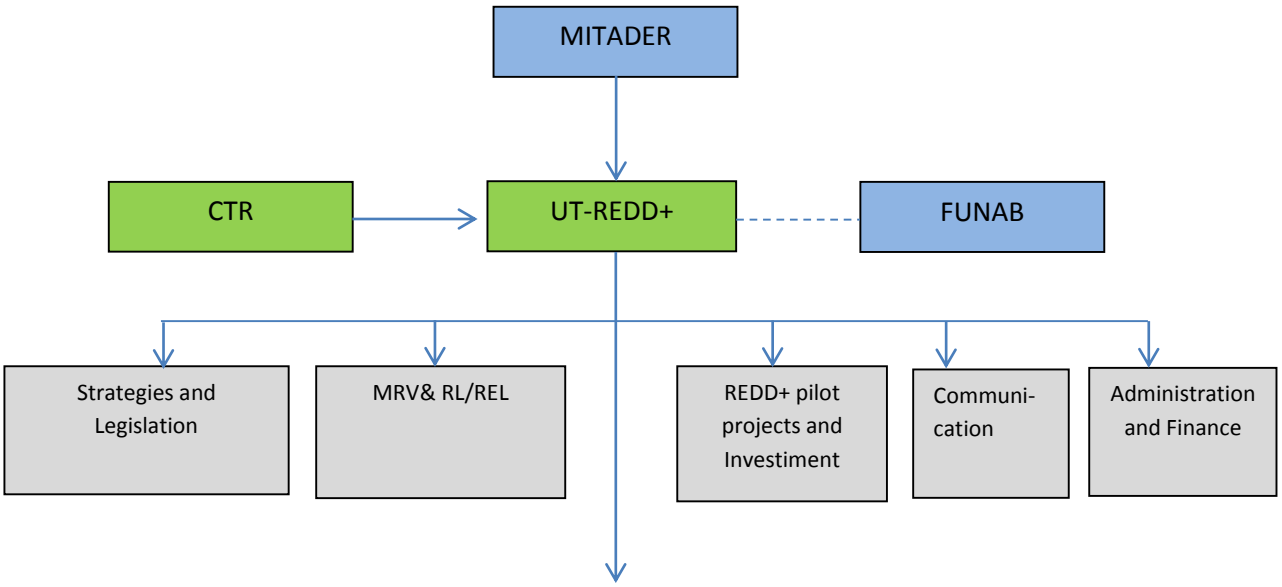
## 2.1. **COMPONENT 1: READINESS ORGANIZATION AND CONSULTATION**

### 2.1.1. Subcomponent 1a: National REDD+ Management Arrangements

#### 2.1.1.1. Institutionalization of REDD + in Mozambique

With the adoption of the Decree No. 70/13 of December 20th, 2013, "Regulation of the procedures for approval of projects for reducing emissions from deforestation and degradation" the main structures of REDD+ were formalized at the national level through the institutionalization of the Technical Unit of REDD + (UT REDD +) and the Technical Committee of Review (CTR). The structure approved by this Decree is in line with the proposal in the R-PP. Nevertheless, there is a need for an approval from a ministerial diploma for the establishment of the composition and functioning of the Technical Unit of REDD +. It should be noted that the process of preparation of this legal instrument has been extended, given the need to adjust the structure of the new Ministry by integrating the areas of land, environment and forests.

According to the current institutional framework, the implementation of REDD + activities is ensured by the UT-REDD+. With the restructuring of government institutions, as a result of the legislative and presidential elections of 2014, the UT-REDD is under the subordination of the Ministry of Land, environment and Rural Development (MITADER), as shown in the diagram below. The Technical Review Committee (CTR) of REDD+ is the means of consultation and supervision of REDD+ activities-National Steering Committee. It is also the structure responsible for producing technical allowances for the UT-REDD+, including the script supervisor technical reports. The FUNAB is not exactly an institution of REDD+ but rather a structure that provides support on the financial implementation of REDD+ activities, once handling administrative and technical processes.



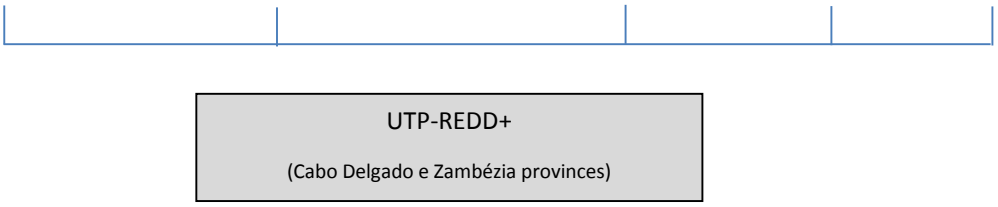



Table 1. REDD+ Structure in Mozambique. Blue: approved government institutions; Green: Structures approved by the Decree nº 70/13; Grey – UT-REDD+ composition to be approved a specific ministerial diploma

UT-REDD+ currently has a team made up of 8 technicians supported by the FCPF, including: i) a UT-REDD+ senior technical assistant ii) a pilot projects technical assistant iii) a provincial coordinator for Zambézia province; iv) a provincial coordinator for Cabo Delgado province; v) a financial assistant; vi) *procurement assistant*; vii) a communications assistant and viii) a technical assistant technician in the field of safeguards. The hiring of a technical assistant for forest monitoring (MRV) and a REDD+ national strategy assistant is on-going. With the adjustment of the recruitment plan, the number of contracted staff will double when compared to the number of 5 technical staff previously in R-PP). The changes in R-PP are due to REDD+ dynamics, in particular the need to adjust to the new approach on REDD+ jurisdictional integrated management of landscape.

Table 2. UT – REDD+ Staff Recruitment Situation

| **UT-REDD+ Fields** | **Recruitment** | | | **Profile of candidates** |
|---|---|---|---|---|
| | **R-PP proposal** | **Adjusted Plan** | **Current Situation** | |
| Coordination | 1 | 1 | 1 | Recruitment of a REDD+ senior technical assistant |
| Strategy and Safeguards | 1 | 2 | 1 | Recruitment of a technical assistant for safeguards and the process of hiring technical assistant for strategy and legislation |
| MRV & RL/REL | 1 | 1 | 0 | Process of hiring a technical assistant |
| REDD+ pilot Projects and investiment | 1 | 3 | 3 | Recruitment of a national technical assistant and two assistant for the management of (Zambézia e Cabo Delgado) pilot projects |
| Administration and Finance | 1 | 2 | 2 | Recruitment of a financial assistant and a *procurement assistant* |
| Communication | - | 1 | 1 | Recruitment of a of communications assistant |
| **Total** | **5** | **10** | **8** | **-** |

Based on REDD+ holistic perspective called integrated management of landscapes, UT-REDD+ has adopted a new approach in order to ensure the coordination and integration of activities of REDD+ in a wider spectrum of sector and territorial programmes. This approach is conducted through pilot initiatives to support rural development in two pilot areas: a) six districts which are part of the Quirimbas National Park in Cabo Delgado; and in seven districts in Zambézia province (Alto Molocue, Ile, Gilé, Pebane, Maganja da Costa, Mocubela and Mulevale). It is noteworthy that the early idea of integrated landscape management Programme of Zambezia was presented to FCFP Carbon Fund in April 2015, and ER- PIN will be presented at the ER-meeting of the FCPF October 2015.

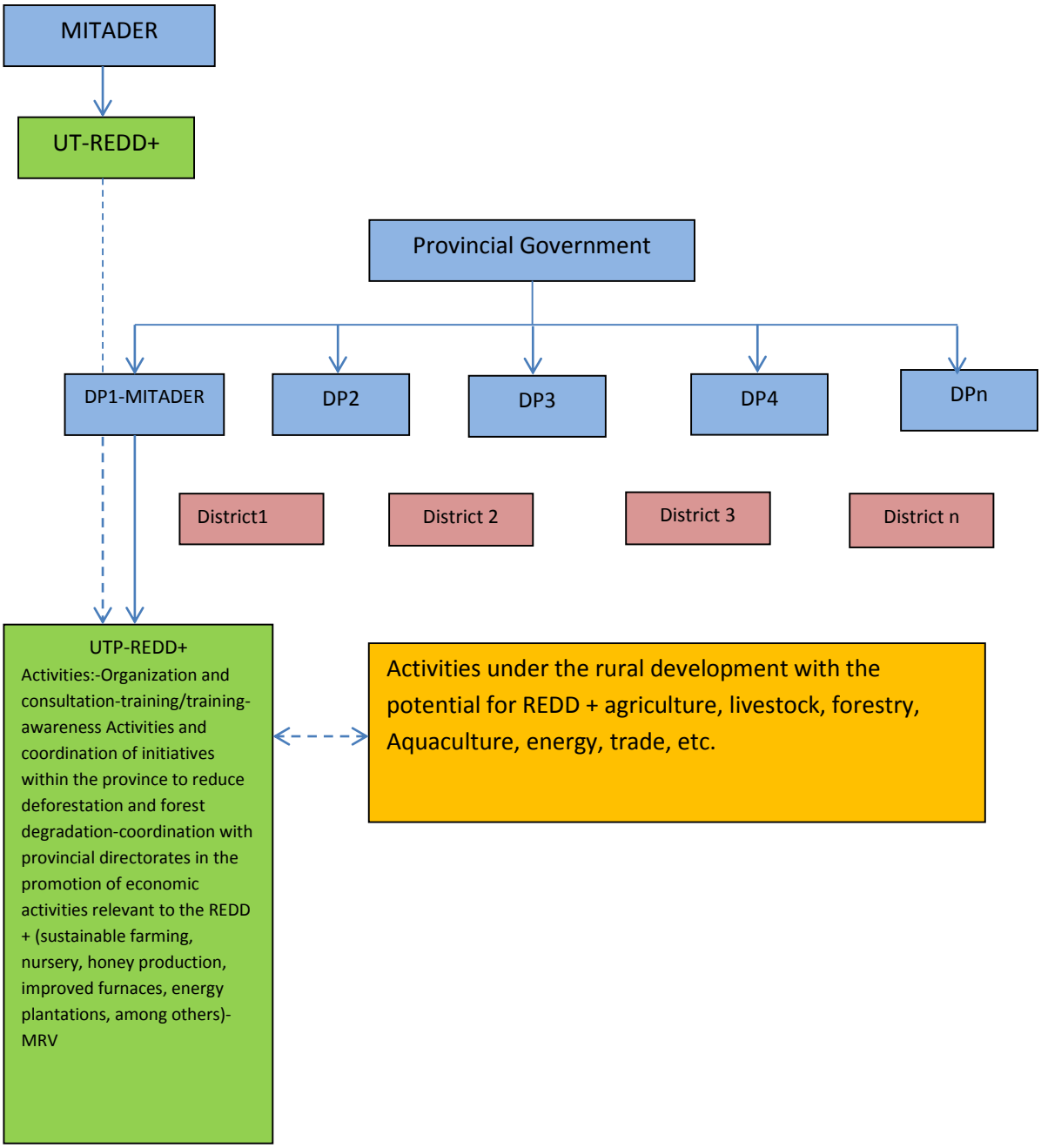



**Figure 2. Perspective of institutionalization of REDD + at provincial level**

The objective of these initiatives is to transition from small individual REDD+ projects to broader jurisdictional or district REDD+ programs. The structure of REDD+ at the provincial level is still in development but it will be guided by experiences learned with the ongoing provincial pilots. In the light of the development of activities, the possibility of creating provincial units of REDD + (UTP-REDD +) opens. In this approach, the primary function of the UTP-REDD+ will be technical support to the programmes of integrated management of landscapes and coordination of their activities at provincial level, district and local levels. Thus, we can affirm that the priority in the institutionalization of REDD + in Mozambique for the next years is the institutionalization of the technical units at provincial level (UTP-REDD +), its insertion in the structure of the provincial governments and the capacity to interact actively with the different sectors of provincial and District Government and other local State institutions.

### 2.2.1.2. Openness, accountability and transparency in the functioning of REDD +

The establishment of clear mechanisms for operation is a fundamental aspect to ensure efficiency in management processes. Since the beginning, REDD+ activities in Mozambique have been taken to be open, accountable and transparent. The diversity of the composition of the work group of REDD+, UT-REDD + and CTR, the regularity of their meetings, the various consultations undertaken as well as the dissemination of reports and other work documents even during the process of preparation of R-PP, is a clear indication of this approach.

This culture of openness, accountability and transparency has been a source of inspiration in the functioning of the existing structures of REDD+ and particularly of UT-REDD+. A fundamental tool indicative of the openness and transparency in governance at the UT-REDD+ is the practice of fortnightly meetings UT-REDD+. These meetings have the participation of all technical team members and aim to take stock of activities carried out in the previous period. This includes planning new activities and making decisions that require prior discussions of the technicians. The composition of the CTR mirrors the principles of openness and transparency by integrating actors from various sectors. To convene fortnightly meetings provided for in the Decree No. 70/13 is a positive sign. The CTR have filled all vacancies and since the beginning of the functions, in the second half of 2014 have already held three meetings to discuss and assess relevant documents.

To ensure openness and transparency in its activities of interaction with other actors and with society in general, UT-REDD + is involved in the following initiatives:

- Establishment of a platform for the dissemination of information of REDD+ in Mozambique, and the activities of the UT-REDD+. This is a platform that integrates organizations such as ACCCRA (Care International, Oxfam, World Vision and Save the Children), WWF, IUCN and the Women and gender NGOs and ABIODES, FAO, and community management Department of the National Directorate of Forests, among others. This national structure enables dissemination of information in the provinces, districts and local communities, as some NGOs have member activities at those levels. In this way, reaching minorities and lower expression extracts.

- Organizing 22 public consultations for relevant issues, where conditions for the participation the civil society organizations are created, with emphasis placed on regional public consultations in the North, Centre and South. All the material for such consultations is available on the website of REDD+.

- Regular publication of relevant documents on the internet through the pages of the FCPF and UT-REDD+ (www.redd.org.mz)

Despite the progress observed, there is a need for a solid work of dissemination of information about REDD+, as there are still some organizations that do not yet have clarity about the process.

In short, REDD+ addresses openness, transparency and responsibility from various angles. However, the establishment of formal operating mechanism based on the approval of an appropriate ministerial diploma is a prerequisite to complement the openness, accountability and transparency in the activities of the structures of REDD+.

### 2.2.1.3. Legal framework of REDD+

Until 2013 REDD+ activities in Mozambique were coordinated by ad-hoc structures, with emphasis on the role played by technical group of REDD+, mainly in the preparation of the proposal R-PP. With the adoption of the Decree No. 70/13, REDD+ became formally a structure coordinated by the Government, particularly by the National Directorate responsible for the environmental management of the Ministry for the Coordination of Environmental Action and by the National Directorate for the management of land and forests, in the Ministry of agriculture. However, with the restructuring of the Government at the beginning of this year resulting from the last legislative and presidential elections in Mozambique, the REDD+ is subordinate to the Ministry of Land, environment and Rural Development (MITADER).

The Decree No. 70/13 establishes in paragraph 1 of article 7 that the Technical Unit of REDD+ is the unit responsible for carrying out activities relating to REDD + and the article 8 sets out the powers of the UT-REDD +.

**TABLE 1**

Competence of the Technical Unit of REDD +

It is the responsibility of the Technical Unit of REDD+ to:

a) Draw up the proposal of the regulation of their operation;
b) Implement the RPP and the strategy of REDD +;
c) Develop and implement procedures for accountability resulting from carbon trading under the REDD +;
d) Interact with public and private institutions, local communities and non-governmental organizations;
e) Coordinate the provincial and district level interventions; Manage the registration of REDD + in Mozambique;
f) Prepare a script of the legal conditions to be fulfilled by REDD + projects;
g) Prepare the script on the allocation of carbon law based on national and international legislation, and in particular the requirement of safeguards in the framework of the United Nations Framework Convention on climate change;
h) Check the conformity of the project implementation where requested; Monitor the impact of REDD + on poverty, food security, culture, gender, biodiversity and other co-benefits;
i) Propose guidelines for the review of project proposals REDD + in their differences. Draw up the proposal of the regulation of their operation; Implement the RPP and the strategy of REDD +;
j) Develop and implement procedures for accountability resulting from carbon trading under the REDD +;
k) Interact with public and private institutions, local communities and non-governmental organizations;
l) Coordinate the provincial and district level interventions;
m) Manage the registration of REDD + in Mozambique;
n) Prepare a script of the legal conditions to be fulfilled by REDD + projects;
o) Prepare the script on the allocation of carbon law based on national and international legislation, and in particular the requirement of safeguards in the framework of the United Nations Framework Convention on climate change;
p) Check the conformity of the project implementation where requested;
q) Monitor the impact of REDD + on poverty, food security, culture, gender, biodiversity and other co-benefits;
r) Propose guidelines for the review of project proposals REDD + in their differences.

Source: Decree No. 70/13 of December 20th, 2013

The same Decree also lays down in paragraph 1 of article 9 the CTR, with a clear mandate to serve as the organ of consultation and supervision of REDD + activities.

TABLE 2

Technical Committee powers of Review of REDD +

a) Evaluate the activities carried out by the Technical Unit of REDD +;
b) Verify that in its action the Technical Unit of REDD + observes the national and international legislation;
c) Suggest improvements in the functioning of the Technical Unit of REDD +

Source: Decree No. 70/13 of December 20th, 2013

### 2.2.1.4. Implementation of the budget

The table below provides details on the different components of the R-PP being financed by different sources

**TABLE 3**

**Detail on the components to be funded**

**Component 1** - Institutional arrangements for the implementation of REDD+ and establishment of capacity at the national level

**Component 2**- Preparation of the strategy of REDD+ strategies including studies of the options and feasibility study, development of EFSA (SESA) and the network of Social and Environmental Management RGSA (ESMF).

**Component 3**- Reference levels including field work for the establishment of reference levels at National level/levels of Emissions references (NR), including the work of study of the national parameters for the determination of carbon stocks and scenario, production of maps of reference mark up in the main Provinces.

**Component 4** - Measurements, reporting systems and establishment of a National information platform of forest resources to accommodate Reference Maps and the NR (produced in Component 3), establishment of monitoring forms on the ground for the monitoring of emissions (using the parameters defined in Component 3), development of monitoring technologies and a reporting system and methodologies that bring socio-economic and environmental benefits; the choice requires evaluation capacities at national and local level, establishment of institutional arrangements for the implementation to the community level.

Source: R-PP Proposal

The expenditure for the activities of REDD+ has been supported by the Government of Mozambique with the support of different donors; the first activities with the support of the Embassy of Norway in Maputo. During the current implementation of the activities of the R-PP activities, funding has been allocated by the Government of Mozambique, FCPF and JICA.

The balance of the use of the funds of the FCPF (3.8 million USD) indicates that up to 31st June 2015, 49% of the funds had already been spent, and that 70% were already committed. However, there is a need for additional funds to enable the fulfilment of the objectives of the R-PP due to the emerging of new needs with the implementation of activities. Such activities include: the need to increase the number of domestically hired staff at UT-REDD+ and hiring engineers in two provinces; the need to revise the legislation; the need to prepare pilot initiatives; establishment of national emissions reference levels; and forest monitoring system (MRV).

The funds available, including the additional funding to be requested from the FCPF, will be sustainable for this phase of preparation for the REDD+ (REDD + Readiness) in Mozambique. However, other funding mechanisms should be adopted for the implementation phase of activities which will generate emission reductions such as payment in accordance with the results. The funds raised in this new approach could be used for investment in activities that contribute to local development, welfare of local communities and reduction of emission levels.

### 2.2.1.5. Coordination of REDD+ multi-sector activities

The mechanisms for multi-sector coordination in the area of the environment have been created before the establishment of REDD+ with the creation of the National Council for sustainable development (CONDES) by means of the approval of the Decree 40/2000 of 17th October, and composed by representatives of government institutions and civil society organizations including the Private Sector Forum for the Environment (FEMA) , The National Union of Farmers (UNAC), Biodiversity and Sustainable Development Association (ABIODES) Medical Association, National Association of Journalists (SNJ) Women's Forum and Association of Municipalities. The CONDES is a consultative body for environment and social safeguards to the investments in the sector. It deals with the harmonization of policies and implementation policy grants, strategies, plans and national programmes related to adaptation and mitigation of climate change.

One of the main activities of the CONDES is to carry out a review of the legal instruments related to natural resources and the environment and submit them to the Council of Ministers for their approval. The CONDES have a clear mandate in respect to strategies allowance and political support to REDD+ in the context of sustainable development of the country and, by virtue of powers it is up to this body the final pronouncement on these matters. Its multi-sector composition and integrating different stakeholders is a fundamental premise for ensuring multi-sector coordination.

It is expected that the CONDES starts its activities within the framework of REDD+ with the appreciation and approval of the strategy of REDD+. The CONDES have received information about REDD+ regularly through the technical unit of climate change, but this will be the first specific interaction for REDD+ issues thus, the need for previous preparation.

The first multi-sector coordination initiatives at a provincial level have just appeared in the provinces of Cabo Delgado and Zambézia by establishing provincial forums, which are part of several groups of stakeholders, including government institutions, the private sector, NGOs and the civil society in general. Since they have been established recently, the provincial forums are still to consolidate as spaces of interaction of the private sector, government institutions, civil society and, in particular, community-based organizations ".

Sector coordination mechanisms are given in the diagram below

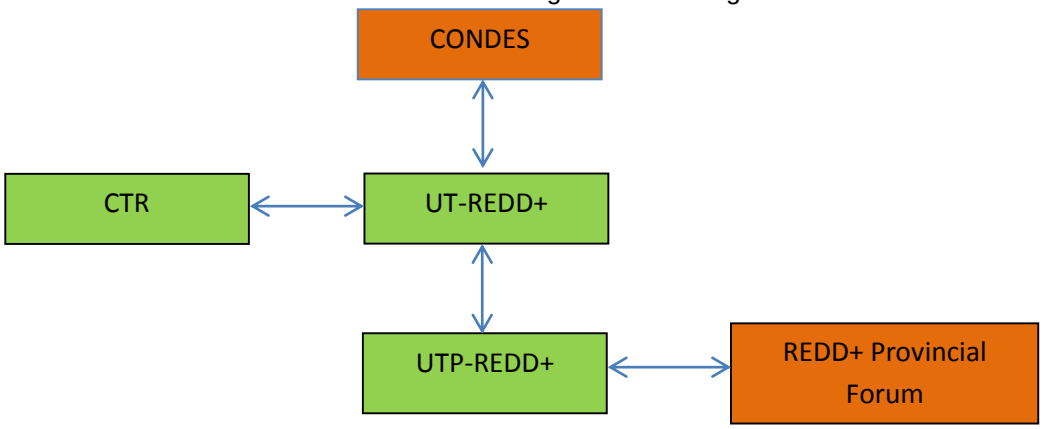



Figure 3. Multi-sector coordination organs. Brown: main multi-sector coordinating body

The local forums involving different natural resource management committees at local level should be enhanced and structured with a representation at district, provincial and national levels, in order to collect their perceptions and aspirations formally. This is a relevant activity to benefit from additional funds of the FCPF through pilot projects.

### 2.2.1.6. Ability of technical supervision of the activities

The activities of a REDD + readiness plan are grouped into 4 main subcomponents:
Component 1: Institutional arrangements for the implementation of REDD +

- National management arrangements of the Readiness project
- Prior dialogue and information sharing with key players
- Processes of participation and organization of public consultations

Component 2: Preparation of REDD+ strategies

- Evaluation of land use, Forestry Legislation, policy and Governance
- REDD + Strategic Options
- REDD+ Implementation Network
- Social and environmental impacts during the Preparation and readiness REDD + implementation

Component 3: Development and reference levels

Component 4: Design of a Monitoring System

- Emissions and removals
- Multiple benefits, other impacts and governance

Component 1 activities, in particular activities relating to mechanisms or arrangements of National Readiness plan management, information-sharing and prior dialogue with key partner groups and the processes of participation and organization of public consultations are being implemented by UT-REDD +. Component 2 activities are being implemented through consulting services hired by UT-REDD +, still ongoing. The activities of the components 3 and 4 are being implemented by JICA through Japan Overseas Forestry Consultants Association (JOFCA)-JICA project-in coordination with the Department of Natural Resources and Inventory (DIRNI) of MITADER.

By legal force, the CTR is indicated to oversee the activities of REDD+. The reports of activities implemented by the UT-REDD+ have been presented in CTR. Since its inception, up to the time of preparation of this report, the CTR has met 3 times, having analysed different reports. However, the level of participation of the members of the CTR at meetings is still not satisfactory. On the other hand, the reports of the components 3 and 4 under the JICA project implementation have not yet been presented in the CTR, thus the need to make room for it.

#### 2.2.1.7. Fund management capacity

The financial management of the activities of components 1 and 2 of R-PP, particularly funds made available by the FCPF, is being carried out by the FUNAB. The procedures used in financial management are based on the manual of procedures of REDD+ project (Project Implementation Manual) following the criteria of the World Bank and national procedures including the rules for hiring and procurement of goods and services, established by the Decree 15/2010. The accounts are audited annually by the administrative court. However, the existing bureaucracy across the Fund management system has caused delays in procurement processes, translating into delays in the implementation of some activities of the R-PP. There is need for simplifying steps in the processing of procurement and payment processes.

Management of the activities of the components 3 and 4 is carried out by JICA and the collaboration on the sharing of information and experiences about the activities carried out through the participation of members of the FCPF and JICA project in public consultations, workshops and other events organized by both projects in the framework of the activities of the R-PP.

#### 2.2.1.8. Complaints and response mechanisms

The establishment of complaints and response mechanisms (Feedback and grievance redress mechanism) is a key aspect for the success of the activities of REDD+. In this context the UT-REDD+ plans to draw this mechanism through a consulting firm that is being carried out within the department, which should be finalized in October 2015. However, since the legislation on REDD+ does not refer to complaints and response mechanisms, the operation of this approach must be by their inclusion in specific legislation, and should be a priority activity in the improving of the legal framework of operation of REDD+.

### 2.1.2. Subcomponent 1b: Consultation, participation, and outreach

#### 2.1.2.1. Involvement of the various actors in the REDD+ activities

The participation of the different stakeholders in the process of REDD+ through institutional mechanisms is ensured by their representation in the CTR, established by the Decree No. 70/13 and it covers different groups of actors. Stakeholder participation is controlled through listings of presence at meetings.

**TABLE 4**

**Composition of the REDD+ Technical Committee of Review**

a) Two representatives from the Ministry for Coordination of Environmental Action;
b) Two representatives of the Ministry of Agriculture ;
c) Two representatives of the Ministry of Tourism;
d) A representative of the Ministry of Industry and Trade;
e) A representative of the Ministry of Women and Social Action;
f) A representative of the Ministry of Mineral Resources;
g) A representative of the Ministry of Energy; ;
h) A representative of the Ministry of Planning and Development;
i) A representative of the Ministry of State Administration;
j) A representative of the Ministry of Finance;
k) Two representatives of the private sector designated by the Ministry of Industry and Trade;
l) Three representatives of non-governmental organizations in the sector of environment and forests, designated by the Ministry of Coordination of Environmental Action, the Ministry of Agriculture;
m) Three representatives of religious faiths as designated by the Ministry of Justice;
n) Three representatives of research institutions designated by the Ministry of science and technology, the Ministry of agriculture.

Source: Decree No. 70/13 of December 20, 2013

However, the levels of participation and representativeness should improve. Efforts must be made to indicate at least a representative of grassroots community level for an interventional participation given the key role that the local community must play in the implementation of REDD+ activities.

Given the need for comprehensive involvement of the different extracts from society, the UT-REDD+ is preparing the dissemination of information about REDD+ through different types of information material, including brochures on various topics related to REDD+ (in particular sustainable forest management, reforestation, agriculture, new and renewable energy, and conservation of biodiversity), paperback, comic books, a video on deforestation, global warming and climate changes, "roll up", caps and t-shirts. For the specific case of information-sharing with local communities, 5 radio parts are in the process of preparation, with translation in 5 national languages which will be disseminated through a network of more than 40 community radios.

However, ongoing activities are not sufficient for a full involvement of the different stakeholders, and particularly of local communities in the process. Other mechanisms must be created so that the perceptions, opinions and suggestions from members of the community are collected and channelled by the Community authorities to appropriate forums. As already mentioned above, the local forums involving different natural resources management committees at local level should be enhanced and structured with a representation in the district, provincial and national forum so as to collect their perceptions and aspirations formally. The pilot projects must have a key role in this approach to the local, district and provincial levels.

### 2.1.2.2. Public consultations

Within the framework of the activities of the R-PP financed by the FCPF, 22 public consultations in total, were held, and 13 of them at the national, 9 regional or community level. For the process of strategy formulation 3 national workshops are still to be conducted and different stakeholders will be invited to each of these depending on the topic in discussion. Once produced, the first draft this will undergo at least 3 public consultations in the North, Centre and South of the country to allow the participation of key actors of REDD+ in all provinces. The table below shows statistics of prominent public consultations carried out within the framework of the implementation of the R-PP.

Table 3. Statistics of major public consultations carried out under the R-PP

| Donor | Activity | National Workshops | Regional/provincial/local Workshops | Community Consultations |
|---|---|---|---|---|
| FCPF | Study of the causes of deforestation and forest degradation | 1 | | |
| | National definition of "forest" | 1 | 3 | |
| | Strategic environmental and social analysis | 1 | | 6 |
| | Elaboration of the REDD + strategy | 4 | | |
| | Others | 6 | | |
| **Sub-total** | | **13** | **3** | **6** |
| JICA | Presentation of the first year of implementation of the project | 1 | | |
| | Establishment of REL/RL | 1 | | |
| | Estimation of biomass and carbon | 1 | | |
| | Information platform design forestry Resources | 1 | | |
| **Sub-total** | | **4** | | |

Some of the current studies for the strategy of REDD+ have privileged also various types of interaction with local communities in order to produce more realistic results, with emphasis on the group discussion method used on strategic environmental and Social Analysis in local communities within the framework of the study of SESA in the provinces of Cabo delgado and Zambézia.

The UT-REDD + has been working to make public consultations a clear process, inclusive. To this end, the preparation of consultations is normally made in advance by sending invitations to the various stakeholders of REDD+, as well as to other relevant guests to the theme of the workshop. To ensure transparency, the agenda of the consultation, including the list of participants is the result of the prior discussion at the UT-REDD+ and the Group of REDD+ and query reports are placed on the website of the FCPF and UT-REDD+ Mozambique.

National consultations have relied on the participation of non-governmental organizations such as ABIODES, MuGEDE ACCRA, WWF which have the ability to collect perceptions and disseminate information in the provinces, districts and local communities, since they have activities to these levels. In order to contribute to the effective participation of women in the orientation of REDD+ and particularly encourage the participation of women in activities, the consultation processes have counted with the participation of AMODEF, an organization in support of gender affairs. At the same time women representing government institutions, NGOs and other organizations have also participated in the meetings, although in small number reflecting the unequal gender distribution in the various institutions.

### 2.1.2.3. Sharing and access to information about REDD +

The reports of activities, including periodic reports of UT-REDD+ to the World Bank (Country Progress Report) and a report on the dissemination of the Decree No. 70/13 and R-PP are available on the website of the FCPC and UT-REDD+. The hiring of a communications assistant is intended to the increase of the number of available information and in good time. There is also information sharing of the group members of REDD+ through a "Google group". The UT-REDD + has organized regular meetings of harmonization of strategy where teams of thematic studies presenting the status of the activities, and partner institutions present their activities and potential synergies. JICA project has organized workshops for discussion and sharing of experiences highlighting the workshops on (i) establishment of reference levels, (ii) design of the forest resources information Platform (FRIP) and (iii) estimation of biomass and carbon. The main results of the project activities are collected in annual reports, and provided in workshops and technical meetings of REDD +.

All studies of the FCPF project are still underway. The main information produced so far in the implementation of the R-PP is the Decree No. 70/13, in the report of its disclosure and summaries of public consultations and the workshops organised in the framework of the thematic studies in progress. Table 5 summarizes the accessibility and responsiveness of the information available.

Table 4. Access to information about REDD +

| Type of informafion | Acessibility | Evidence of responsiveness |
|---|---|---|
| Decree n$^{o}$ 70/13 | AUT-REDD + released the document in digital format to the main actors at the national level and in 7 provinces where the Decree was presented to provincial governments. However there is need for dissemination of the document, and encourage the dissemination of objectives and other key aspects as well as its location so that those interested can have access. | Means for controlling the reception by the key players have not been established. Thus, the need to develop these mechanisms. |
| Report on the dissemination of Decree No. 70/13 | It is available on the web pages of the FCPF and REDD + Mozambique. It was also shared with the various actors by email. | By acknowledgement of reception of emails |
| Summary of the public consultations | The summaries are shared with the various actors by email . | By acknowledgment of reception of emails |
| Sínteses dos workshops | The summaries are shared with the various actors by email | By acknowledgement of reception of emails |

Communication channels used for ensuring that the main stakeholders are fully informed consist of electronic mail, the web pages of UT-REDD + and of the FCPF, as well as meetings for dissemination of documents, such as the case of the meeting for the dissemination of the Decree No. 70/13.

As mentioned above, the public consultations carried out and planned under the implementation of the R-PP include workshops of four thematic studies to feed the strategy of REDD+, as well as workshops on the elaboration of the strategy of REDD+, about REL/RL and on the designing of FRIP. Sessions will be organised for the presentation of their preliminary reports where participants will have the opportunity to ensure that the important issues identified in the initial consultations are incorporated into the documents.

## 2.2. COMPONENT 2: REDD+ STRATEGY PREPARATION

### 2.2.1. Subcomponent: 2a: Assessment of land use, land-use change drivers, forest law, policy and governance

The work done during the formulation of the R-PP made an extensive analysis of the recent trend of land use.

R-PP proposal indicates that from 1987 to 2010, 41.008 DUATs and, about 15.684.975 acres have been awarded, where 15.272 requests were approved between 2005 and 2010 in an area of 2.451.578.82 acres. The document further indicates that the supervision made from 2005 to 2010 shows that 2.906 plots are not being used in the country. Table 7 shows legal aspects on the land use discussed in the R-PP proposal

**TABLE 5**

**Legal aspects on land use**

| |
|---|
| In the Constitution of Mozambique (1990) the possession of all forms of property is allowed except for the land. The land is owned by the State and cannot be sold or disposed of under any form and even mortgaged ". The law of the land was approved in 1997 after a series of democratic processes of consultation involving partners such as NGOs, traditional authorities, educational institutions, religious groups, political parties and international donor agencies including the UN organisations. "The law introduced the concept of "local communities" as "being" a group of families and individuals living in a limited land area within the level of a locality or a lower level that aims to safeguard the common interests through the protection of their housing area, agricultural areas, cultivated and non-cultivated, forests, places of socio-economic importance, grazing lands, water sources and areas of expansion". This extensive concept can be defined as local communities or traditional units based on clans or chiefdoms, extended families and or group of neighbours. The law recognizes the rights of land use to those who occupy in good faith for a period of at least 10 years. The same types of rights as the rent for commercial reasons are granted by the State. A complete record requires registration services in MINAG and property records (Ministry of Justice). The preparation and issuance of the rights of land use (DUAT) is the responsibility of the registration services. The titles of the land cannot be purchased but properties (such as titles of houses, trees and car parks) can be purchased. . |

The R-PP also analysed the rights over the natural resources, livelihoods (including traditional/customary), concluding that the policy and the legal instruments contain important provisions such as resources returns to local communities, participatory decisions on the allocation of resources to investors (public and private) and benefit sharing mechanism. The creation of a new Ministry to deal with the areas of land, environment, forestry and rural development (MITADER) under the restructuring of some government institutions in the first half of this year creates conditions for integrated and efficient governmental approach of REDD+, including deforestation and forest degradation and their relationship with land use, environment and rural development.

With the current resources of the FCPF, a consulting firm has been hired to analyse the legal and institutional framework for the implementation of REDD+ in Mozambique. The purpose of this advisory is to draw legal and institutional framework for the implementation of REDD+ national strategy at national and provincial levels best suited to the conditions of the country and give inputs for the preparation of REDD+ national strategy. This consultancy has been in progress since April 2015, and will provide subsidies on the existing legal framework with relevance for the REDD+ programme in the country; how

it could be improved in order to establish a sound regulatory basis for effective implementation of REDD+ in the country. It will also define the existing institutional arrangements to support REDD+ programme and carry out analysis in terms of opportunities, threats, gaps in the laws of the sectors of (forestry, agriculture, tourism, infrastructure, etc.) which contribute directly or indirectly to the implementation of REDD+ in the country. And finally prepare the system for benefit sharing.

#### 2.2.1.1. Prioritization of direct and indirect drivers/ barriers to forest carbon stock enhancement

Study of the causes of deforestation and the strategy options to contain these causes.

The study of the causes of deforestation and forest degradation is analyzing the strategy options to contain this deforestation, including the cost of implementation of such activities. Using a participatory approach, the emission reduction options in different regions will be identified and priorities set for actions based on the results of the study on the causes of deforestation and forest degradation. The prioritization of actions will take into account the following aspects: (i) increasing family income, (ii) reducing emissions and (iii) the reduction of operating costs in agriculture, among other things.

In addition to direct and indirect causes of deforestation, the study of the causes of deforestation and forest degradation does an in-depth analysis of the barriers to increasing carbon, including barriers related to policies as well as those of economic, technological and demographic nature. This analysis will be discussed in the workshops to be properly embedded in the strategy of REDD+. The workshops will also establish the relationship between the causes of deforestation and forest degradation and/or barriers to increased carbon and the REDD + specific activities to be developed.

#### 2.2.2.2. Action plans to address rights to natural resources, land tenure and governance

As stated above, two areas for the implementation of pilot initiatives of REDD+ have been identified: Integrated landscape management program of Zambezia, involving the districts of Alto Molocué, Ile, Gilé, Pebane, Maganja da Costa, Mocubela and Mulevale and the Integrated landscape management program of Cabo Delgado, involving the 6 districts that are part of the Quirimbas National Park in Cabo Delgado. The program of Zambezia was presented to the FCPF Carbon Fund in April 2015. The ER-PIN will be presented in October at the13th Carbon Fund meeting. Those areas do not yet have short, medium or long term action plans to address the key issues about the rights to land use, natural resources, welfare and governance. There is need to establish these action plans and define the next steps and the required resources being an important basis for greater effectiveness of the activities of REDD+. The preparation of these pilot projects, including the establishment of the action plans is one of the activities intended to be covered by the FCPF additional funds.

The identification of the implications of the results of the analysis on the rights to land use, natural resources and welfare for the forest legislation and other laws or policies on the long term will be outlined in accordance with the National REDD+ strategy and detailed in the implementation of pilot projects.

## 2.2.2. Subcomponent: 2b. REDD+ Strategy Options

### 2.2.2.1. Selection and prioritization of strategy options

REDD+ National strategy

The frameworks for REDD+ readiness includes the development of a national REDD+ strategy.
A preliminary version of the REDD+ strategy will be presented at the 21st meeting of the COP, UNFCCC. The final strategy will be concluded in February 2016 with the submission of the proposal of the strategy to the CONDES. The strategy will incorporate the results produced by the four studies funded with this FCPF grant, namely (i) study of the causes of deforestation and degradation of forests and strategic options to contain this deforestation; (ii) national definition of "forests"; (iii) social and environmental strategic analysis; and (iv) analysis of the legal and institutional framework for the implementation of REDD + in Mozambique.

Table 5. Calendar of workshops for the preparation of REDD+ strategy

| Date | Description of the workshop | Objectives |
|---|---|---|
| 28/07/15 | Workshop 1. REDD+ Strategic vision and mission | Evaluate the strategic vision and mission of REDD + for Mozambique |
| 18/08/15 | Workshop 2. Potential of emissions reduction | Identifying emission reduction options in different regions and define priorities for action |
| 22/09/15 | Workshop 3: REDD+ Strategy Action Plan | Discuss the mechanisms of implementation: coordination, institutional arrangements and legal aspects, financing |
| 12/11/15 | Workshop 4: REDD+ Strategy and Action Plan | Evaluate the semi-final document f REDD+ strategy and its action plan |

The national REDD+ strategy options and their prioritization are being developed based on priority actions of a participatory and transparent process with highlight on discussions in workshops with the participation of relevant actors. The preliminary strategy document containing the options strategy will be presented in public consultations in the North, Centre and South of the country, where key actors should participate in their provinces.

As part of the strategic environmental and Social Analysis (SESA) several public consultations were held in the areas of pilot projects. In Cabo Delgado, community consultations were carried out in the districts of Quirimbas National Park and a provincial workshop in Pemba. In Zambezia, 2 queries held in the local communities of the District of Gile and a provincial workshop in Quelimane. The outcome of the SESA including consultations findings combined with the results of other thematic studies will be used to feed the national REDD + strategy, particularly for prioritization of strategy options taking into account social, environmental, policies, risks and opportunities aspects and the analysis of costs and benefits.

### 2.2.2.2. Consideration of possible inconsistencies in the priority options of REDD+ strategies

Among the major development programmes led by other sectors, Prosavana progrmme stands out due to the increase of agricultural production in the provinces of Niassa, Nampula, Zambezia and Cabo Delegate. In relation to infrastructure highlights go to the extension plan of the electrical infrastructure of Cahora Bassa to Maputo (more than 1.200 km) and the construction of two other additional dams on the Zambezi River (Mphanda Nkuwa and Cahora Bassa II). In the mining area great prospects are open with the discovery of large quantities of gas in the Rovuma basin.

The best way found for the identification and solution of possible inconsistencies between the national REDD + strategy and economic development programmes or policies in other sectors, was through the involvement of the sector entities with relevant role in these programmes. The workshops on strategy have had the participation of relevant sector institutions with emphasis the Ministry of Land, Environment Rural Development (MITADER), Agriculture and Food Security (MASA), Finance, Industry and Trade, as well as the FUNAB, INGC, Climate Changes Unity, National Association of Peasants, among others, according to the topic in discussion. Other interaction actions such as specific meetings with specific sectors are expected to happen whenever a need arises.

The details on the approaches to be used for the solution of the inconsistencies will be considered during the process of elaboration of the strategy and particularly in the discussions in the workshops concerning the elaboration of strategy options.

### 2.2.2. Sub-component: 2c. Implementation framework

#### 2.2.2.1. Adoption and implementation of the legislation

The main legal instrument concerning the REDD+ available today is the "Regulation of the procedures for the approval of projects for reducing emissions from deforestation and degradation" approved by the Decree No. 70/13 of December 20th, 2013. However, by indication of this Decree other complementary legal instruments should be created. On the other hand, with the restructuring of the Government of Mozambique in January 2015 culminating in the restructuring of several ministries a need for updating forest legislation to current reality has emerged. This creates an opportunity to better incorporate the issues of REDD+ in forest legislation and better align the strategy of REDD + with the legislation. Complaints and response mechanisms (Feedback and grievance redress mechanism) should also be incorporated into the legal framework. This mechanism is being prepared by the safeguard instrument (Ressetlement Policy Framework (RPF).

Since the process of REDD+ is still in a preparatory phase, with the implementation of the activities of the R-PP, the results of implementation of legislation for the REDD+ are still barely visible. However, the facts show that the adoption of the Decree No. 70/13 has been an incentive from a legal standpoint for the implementation of REDD+ projects and it is helping to encourage and create good environment for the implementation of the pilot projects of Quirimbas and Zambezia and it has increased the possibilities of raising resources for the implementation of REDD+ activities in different perspectives. An example of this are the MozBio projects already in implementation, budgeted in USD 46 million, USD 3 million to be used for both programmes; USD 24 million for the Forest Investment Programme, USD 80 million for Agriculture and Natural Resources Landscape Management project still in preparation and actions related to REDD+. However, the Decree No. 70/13 requires a deep analysis and likely revision of fees since they are considered high and may compromise the sustainability of REDD+ projects in the future.

#### 2.2.2.2. Framework for implementation of REDD+, benefit sharing mechanisms and registration of projects

The national REDD+ strategy will indicate the implementation plan, starting with the identification of potential projects for implementation. The regulation of the Decree No. 70/2013 highlights briefly the key components of the implementation mechanisms of the carbon rights, benefit sharing, REDD+ financing mechanisms and procedures for the approval of projects.

The system of sharing of benefits is being prepared by a consultant, funded with the current resources of the FCPF, and will be completed by December 2015. The benefit sharing system is a fundamental

aspect for the implementation of REDD+ initiatives successfully. This is already provided for in article 21 of the Decree No. 70/13 which states that the draft REDD+ should always provide for the distribution of benefits, including local communities under the terms of ministerial diploma by all the Ministers who oversee the areas of the environment, agriculture and tourism.
However, the ministerial diploma on benefit sharing mechanisms should also be prepared in this phase of the REDD+ Readiness and must include aspects which ensure transparency in the sharing of benefits. Mozambique has a vast experience on benefit sharing on exploitation of forest resources and wildlife. Article 102 of the Decree 12/2002 entitles local communities to take advantage of revenues by licensing the exploitation of local resources by indicating that 20% of any forest exploitation rate or fauna is intended for the benefit of local communities in the area where they were extracted from. For the operation of this article, the Ministerial Diploma in 93/2005, article 2 establishes that the licensor should promote the creation of the management committees and the registration of its members, in coordination with the administration of the district or administrative post, associations and non-governmental organizations, and requesting operators, from the beginning of the process of identifying the area and natural resources, and consultation or negotiation with the local communities.

On the other hand, the implementation of REDD+ projects requires due registration. Within the framework of REDD+ activities in Mozambique, JICA is developing the platform of information on forest resources (FRIP) with the aim of monitoring REDD+ among other purposes. The REDD+ projects and the relevant information will be posted on this platform. Once completed the platform in 2017, the public may have access to relevant information.

### 2.2.3. Subcomponent: 2d. Social and Environmental Impacts

Relevant aspects about the social and environmental safeguards are being identified and analysed through the SESA (Social and Environmental Strategic Assessment), favouring various forms of consultations. The consultations held within the prioritized local communities covered by SESA pilot projects of Quirimbas, of Zambezia and Gaza (where there are projects already in progress), in order to obtain useful information for effective local implementation of projects and at the same time serve as a basis for a general analysis at national level. Table 6 presents statistics on consultations.

Table 6: Community consultations statistics about SESA in the provinces of Cabo delgado and Zambézia

| | | | **Men** | | | **Women** | | |
|---|---|---|---|---|---|---|---|---|
| **Province** | **District** | **Communities** | **Adults** | **Elderly** | **Youth** | **Adults** | **Elderly** | **Youth** |
| Cabo Delgado | Quissanga | Nacoja | 23 | 29 | 40 | 55 | 31 | 0 |
| | | Montepuez | 19 | 42 | 19 | 21 | 0 | 0 |
| | Macomia | Bangala II | 26 | 15 | 0 | 20 | 0 | 0 |
| | Meluco | Massasse&Nguya | 16 | 11 | 28 | 23 | 0 | 0 |
| Zambézia | Pebane | Muceia | 35 | 0 | 18 | 17 | 0 | 0 |
| | Gilé | Namarrua | 42 | 0 | 52 | 23 | 0 | 0 |
| **Total** | | | **161** | **97** | **157** | **159** | **31** | **0** |

*Source: study on SESA*

Strategic environmental and social analysis have produced the first preliminary report which results are being considered in the drafting of the strategy and particularly in prioritizing and strategy options design of REDD+. The workshops on strategy have been a place of many debates including the impact of the outcome of the SESA on strategy. In turn, the "Environmental and Social Management Framework (ESMF) will be established by the SESA after consensus on national REDD+ strategy options. The ESMF should be tested in the pilot projects of Quirimbas and Zambézia after the adoption of the strategy of REDD+.

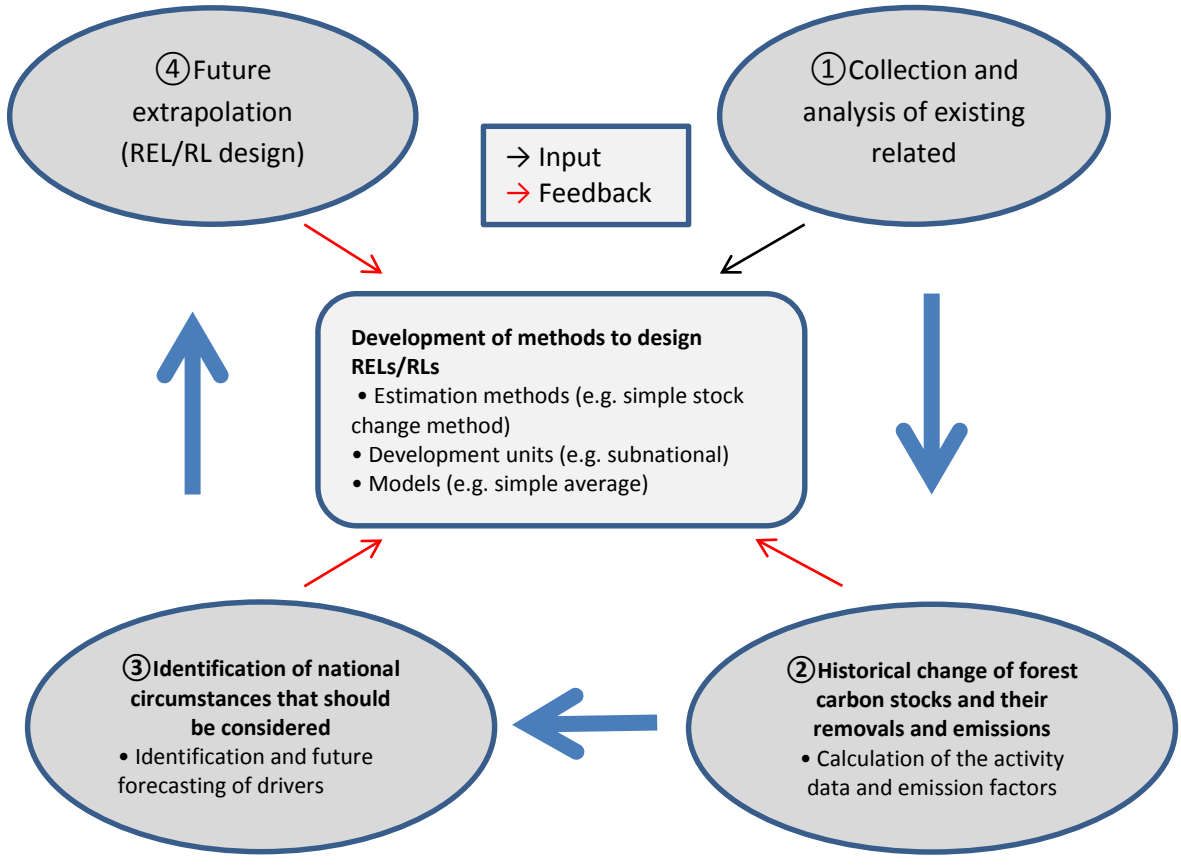
The consultancy for the preparation of resettlement management framework (Resettlement Policy Framework-RPF), including the Grievance Redress Mechanism in process of negotiation.

## 2.3. COMPONENT 3: REFERENCE EMISSIONS LEVEL/REFERENCE LEVELS

### 2.3.1. The methodological approach

The REL/RL is being developed by a project financed by JICA. JICA is specifically supporting DNRI, MITADER, in setting REL/RL at the sub-national level, for the provinces of Cabo Delgado and Gaza, based on a step-wise approach as presented below.

Figure 4 below describes the formulation of RELs/RLs and the development of related methods. Within this overall workflow, methods of developing the RELs/RLs and its results, as well as information needed in their formulation (e.g., data on forests and national circumstances) were collected, and methods of applying them in the project were analysed.




Source: Adapted from JICA 2015 interim project report

Figure 4. RELs/RLs developing flow

The project has also studied the RELs/RLs submitted to UNFCCC and the RELs/RLs of 10 countries given as examples in "Emerging approaches to Forest Reference Emission Levels and/or Forest

Reference Levels for REDD+" published by the UN-REDD Programme as well as reports on RELs/RLs prepared by universities and donors.

A workshop was organized in Maputo with participants from government institutions, education and research institutions, NGO's and donors, among others, aiming to (i) understand the concept of RELs/RLs (ii) understand technical features of developing RELs/RLs and (iii) discuss how RELs/RLs should be developed in Mozambique. Results of the analysis of previous work on REL/RL were presented at the workshop and provided as materials to examine the methods of developing the RELs/RLs to be adopted by Mozambique. Annex 2 shows outline of the workshop. On the basis of the information provided through the presentations, several elements considered to develop the RELs/RLs in Mozambique were pointed out, and an opportunity was given to the participants to discuss how the RELs/RLs should be developed in Mozambique.

Biomass and carbon estimation is a key step for the establishment of RELs/RLs. In this regard, JICA project organized a workshop on biomass and carbon estimation where procedures and methods of carbon estimation and application of the carbon stock data (i.e. calculation of the emission factors) were discussed (see annex 3 for details). During the workshop, explanation was given on basic knowledge of carbon estimation, measurement procedures, survey cases of other countries, etc., situation of data arrangement in Mozambique and how the existing data can be applied to REDD+ were discussed. Moreover, carbon pools that should be measured and necessity of biomass surveys were discussed. Aiming at supporting the DNRI to arrange the data by themselves for developing the emission factors associated with the REDD+ monitoring after the Project implementation, "Guidelines for formulation on biomass and carbon estimation models" were prepared (see annex 4 for details).

Regarding the activity data for developing RELs/RLs in the provinces of Cabo Delgado and Gaza, basic maps of 2008 were developed based on high resolution imagery as well as reference year maps using medium resolution imageries. The Government of Japan will provide additional funding and support the development of base maps for the remaining provinces in 2016 and 2017 based on Landsat 8 images from 2014/2015 with the aim of creating a country wide base map.

The project is also supporting DNRI in conducting forest inventory in Cabo Delgado and Gaza, to be completed in 2016. This project will conclude the establishment of REL/RL for the provinces of Cabo Delgado and Gaza by 2017**.** By setting REL/RL in those two provinces, JICA project will be transferring the technology so that the DNRI is able to apply the technology for setting the national REL/RL on its own, after the completion of the Project implementation. Additional funding is needed for the completions of the process in the remaining provinces of the country.

### 2.3.2. Use of historical data and national circumstances

The JICA project will consider how to establish the FREL/FRL in year 2015 and 2016 and estimate the FREL/FRL in 2017 based on historic data going back around 10 years. JICA project has selected the points to be considered and decided for the setting of the FREL/FRL such as REDD+ activities to be implemented, carbon pools to be counted, historical reference period and the number of data points for analysis, method of calculating emission factors, and method of extrapolating the future emissions/removals.

In addition, regarding the national circumstances, some of the projects in Mozambique have been trying to reflect on the circumstances (deforestation/degradation drivers) to the FREL/FRL but scale of their target areas is in smaller levels than in the province. The FREL/FRL on province level is meant to be set in the JICA project, and the FREL/FRL in national level will be set in the future (after the JICA project) as the sum of the provinces.

### 2.3.3. Technical feasibility of the methodological approach

All information regarding development of REL/RL will be available in the Forest Resource Information Platform (FRIP) at DNRI.

JICA project is still collecting information on methods of developing RELs/RLs. As described in the interim project report 2015 of JOFCA, at present, Brazil, Colombia, Ecuador, Guyana, Malaysia and Mexico submitted the RELs/RLs to the UNFCCC. The RELs/RLs developed in these countries will be analysed. Especially, the RELs/RLs of the five countries excluding Brazil will be assessed in the SBSTA session in 2015, and results of the assessment will be taken into consideration to develop the method of setting RELs/RLs for Mozambique. Besides the RELs/RLs submitted to the UNFCCC, methodology that was submitted to the voluntary system such as VCS will be studied and used as a reference to development of RELs/RLs for Mozambique.

## 2.4. **COMPONENT 4: MONITORING SYSTEMS FOR FORESTS, AND SAFEGUARDS**

### 2.4.1. Subcomponent: 4a. NATIONAL FOREST MONITORING SYSTEM

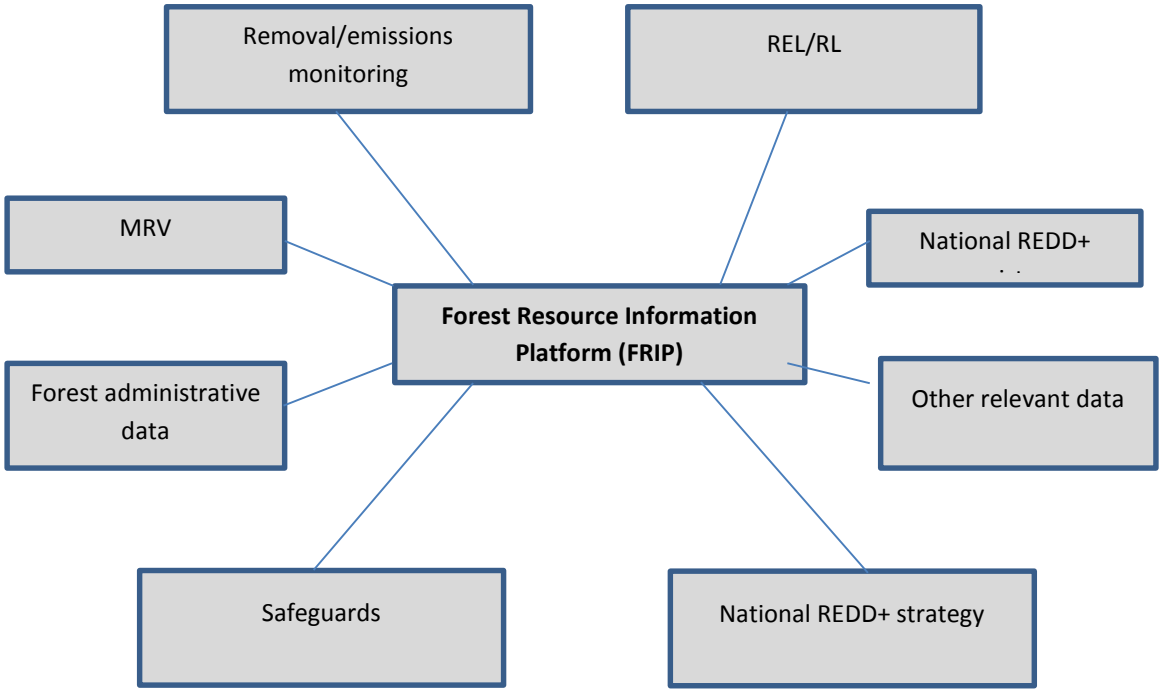
#### 2.4.1.1. The Forest Resource Information Platform

JICA is developing a Forest Resource Information Platform, through the Japan Overseas Forestry Consultants Association (JOFCA), with the objectives of i) establishment of a preparatory system for REDD+ and ii) promotion of sustainable forest management on the overall goal of the Project. The FRIP is being designed to host the information of the National Forest Monitoring System (NFMS), among others. The specific objectives of the platform were stated as:

1) Data gathering on $CO_2$ stock, the removal and the emission in the forests with mapping information in the past, present and future
2) Contribution to providing information on safeguard for REDD+
3) Contribution to the quantitative understanding of the drivers of deforestation and forest degradation
4) Contribution to the quantitative assessment of the PaMs
5) Data collection, such as forest growth and concession to contribute for the preparation of the forest management plan
6) Inclusion of the national REDD+ registry function

A Technical Work Group (TWG) was established in order to study the design and development of the forest resource information platform. Annex 6 shows TWG member list and schedule of meetings and annex 7 shows the databases with potential for cooperation with Forest Resource Information Platform. The information considered necessary and available in the platform related agencies is presented in annex 8. The roadmap for the updated platform based on the activities in the first and the second years is shown in Annex 9.

Based on the specific objectives the platform was defined as handling the eight items specified below:




Source: Adapted from JOFCA report 2015

Figure 5. Conceptual Diagram of the Forest Resource Information Platform

JICA project prepared a manual that describes the updating procedure for platform data. A workshop concerning the platform was held, during which demonstrations of the platform were conducted, and information such as the platform concept, data handled and roadmap were shared with the involved persons. Training was also conducted regarding updating procedures for the platform content and updating procedures for map data. Before implementing the training, a data update manual was created.

### 2.4.1.2. Forest monitoring approach

The Forest Resource Information Platforms still under development and, in line with the Decree 70/13, will be presented and discussed at the CTR before submission for approval by the government. The NFMS is also under construction and will be consistent with IPCC guideline.

JICA project is considering NFMS by combination of remote sensing and forest inventory. For instance, national forest cover map will be revised every five years by the use of the middle range resolution satellite imagery such as Land sat. And forest inventory will be designed with the combination of systematic sampling method, stratified sampling method and random sampling method based on the national forest cover map. In addition, semi-real time monitoring method for forest cover changes will be developed based on analysis of the radar satellite imagery for considering and taking counter measure of deforestation in the field.

Information on REL/RL and removal/emissions monitoring will be available in the FRIP, allowing therefore comparison of changes in forest area and carbon content relative to the REL/RL.

### 2.4.1.3. Participation of stakeholders in building the NFMS

The JICA project organized a workshop for the presentation of the platform and information, such as the platform concept, data handling and roadmap were shared with stakeholders and other participants. The updated FRIP will be presented in subsequent workshops. The JICA project is considering the NFMS with DNF especially with DIRN and will make a presentation in a workshop with the participation of relevant stakeholders such as other concerned governmental sectors, including the research institutes, international donors, NGOs and universities.

### 4.2.1.3. Institutional arrangements and capacities

UT-REDD+ was created through the Decree no. 70/13, to coordinate the implementation of REDD+ related activities. The Department of Natural Resources Information has been the entity performing tasks related to satellite data processing and forest inventory. Therefore, key activities of the Forest Resource Information Platform and NFMS have been conducted at DNRI. With the restructuring of the government at beginning of 2015, it is still unclear whether DNRI will continue performing those activities. Taking in consideration the multi-sector nature of forest monitoring, there is a need for enhancing information sharing and better coordination.

The Forest Resource Information Platforms are being designed in a way to allow specific and general users to access a variety of information, including information related to forest and emissions. The service hours will be provided by the platform designed to function 24 hours a day, 365 days a year, while taking into consideration stoppage due to power failures, breakdown of servers and other problems.

Although a manual that describes the procedures related to the platform has been prepared, there is a need of capacity building on how to use and update the platform, as recommended by JOFCA report 2015.There is also a need of capacity building in NFMS. Data exchange and sharing experience among forest monitoring stakeholders must be enhanced to feed the platform. Better coordination will be guaranteed through establishing a steering/coordination body for the REDD+ NFMS/MRV system by means of:

- Linking MRV and policy
- Coordinating and steering the implementation of REDD+ monitoring and capacity building activities
- Provide key advice on REDD+ monitoring issues to policy makers and REDD+ implementing bodies
- Coordinate partnership and joint support system with on-going and planned REDD+ local implementation activities and their monitoring activities

### 2.4.2. Subcomponent: 4b. Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

Relevant non-carbon aspects and social and environmental safeguards are being considered as component of the study being conducted by SESA team. Fieldwork including consultation has been conducted in the local communities of Quirimbas and Zambézia pilot project areas. The safeguard instruments will be prepared and validated within this year. At this stage additional capacity building needs were identified for the pilot projects implementation to address relevant non-carbon aspects, specifically to:

- Establish system for periodically collecting and sharing consistent information on non-carbon aspects and safeguards;
- Clarify the mandates to perform tasks related to non-carbon aspects and safeguards;
- Identify and estimate associated resource needs on non-carbon and safeguards (e.g., required capacities, training, hardware/software, and budget;

# 3. AN ANALYSIS OF PROGRESS ACHIEVED IN THOSE ACTIVITIES FUNDED BY THE FCPF READINESS PREPARATION GRANT

As stated in this report, Mozambique received an amount of USD 200,000 for the preparation of the R-PP, and USD 3.6 million from FCPF for the implementation of components 1 and 2 of the R-PP. The table below shows details of the original allocation for each project activity.

Table 7. FCPF project components, activities and budget

| **Project Activities** | **Costs (USD millions)** |
|---|---|
| **Preparation of the R-PP** | **0.2** |
| **1. Strengthening the national readiness management arrangements** | **1.8** |
| 1.1 Strengthening of the Technical Unit for REDD+ and the Technical Committee | 1.0 |
| 1.2 Strengthening the decentralization of REDD+ arrangement | 0.3 |
| 1.3 Project Management Costs | 0.5 |
| **2. Promotion of multi-stakeholder consultations** | **0.9** |
| 2.1 Multi-stakeholder awareness raising and consultations on the REDD+ strategy and its legal framework | 0.6 |
| 2.2 Preparation of communication material on REDD+ | 0.3 |
| **3. Design of the national REDD+ Strategy** | **0.9** |
| 3.1 Preparation of the national REDD+ Strategy | 0.4 |
| 3.2 Strategic Environmental and Social Assessment (that provides both for an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF)) and Design of a Grievance Mechanism | 0.3 |
| 3.3 Design of the national legal and institutional framework for REDD+ | 0.2 |
| **Total Costs** | **3.8** |

The following section presents a summary of the challenges and lessons learned during the implementation of activities made possible by funds of the FCPF.

# 1. READINESS, ORGANIZATION AND CONSULTATION

## 1a. National REDD+ Management Arrangements

**Challenges**

- The structure of REDD+ approved by the Decree No. 70/13 of December 20th, 2013 is in line with the proposal of R-PP. However, there is a need for adoption of a legal complementary instrument at the ministerial level, for the formalization of the entire structure, including the adoption of a ministerial diploma for the establishment of the composition and functioning of the Technical Unit of REDD +;

- The new approach to integrated landscape management, REDD+ and, in particular, pilot projects implies that projects gradually cease to act in isolation, to be regarded as measures integrated in the Government rural development programmes at provincial level, district and local levels; As such, multi-stakeholder and inter-sector coordination, require relevant government institutions, private sector and learned civil society, and engagement.

- There is need for institutionalization of the technical units at provincial level (UTP-REDD +) and their insertion in the structure of the provincial governments, but with technical support of UT-REDD+, and with ability to interact actively with the different sectors of provincial and District Government and with other local State institutions;

- The local forums (involving different natural resource management committees at local level) should be enhanced and structured with representation at the district, provincial and national levels, in order to collect and give feed-back of perceptions and expectations of local communities about REDD +;

- The bureaucracy that exists in the entire chain of fund management of UT-REDD+ has caused delays in the process of procurement of services, translating into delays in the implementation of some activities of the R-PP. There is a need to reverse this situation by simplifying and streamlining procedures without compromising the sound management of funds.

**Lessons learned**

- The increase in staff needs in UT-REDD+ detected throughout the implementation of the activities related to the FCPF, shows that REDD+ projects should be formulated flexibly so they can adjust to the prevailing conditions of the implementation without losing sight of the focus on the main objective of the project;

- The legislation on REDD+, in particular the Decree No. 70/13, is a crucial instrument for streamlining the operation of REDD+ and for the mobilization of funds;

- The use of inter-sectoral coordination mechanisms already created for the implementation of REDD+ activities, as it is the case of CONDES, allows for time saving and improves the efficiency of processes;

## 1b. Consultation, Participation, and Outreach

**Challenges**

- There is need for representativeness of grass-root community organizations in provincial forums and the CTR, given the key role and the influence that local communities have in the implementation of REDD+ activities;

- There is also a need to manage the expectations of the various stakeholders involved in the REDD+ process, especially the communities located in the forested areas to be aware about REDD+ and its limitations

- There should be ways to stimulate that the growing participation of other ministries and Government institutions in the processes of consultation must as well reflect on greater inclusion of issues related to REDD + in the respective institutions.

**Lessons learned**

- The participation of MuGEDE, an organization addressing gender affairs, in consultation processes have been a unique opportunity for greater women's contribution in the discussions on REDD+;

- The insertion of the communication area in UT-REDD+ has been crucial for the dissemination of information for the various actors and to the sharing of information of the members of REDD+ Group. Moreover, it has allowed for better management of expectations on REDD + with local communities, as well as ensuring synergy between the various initiatives of REDD + in progress. Indeed, such understanding has led the UT-REDD + to increasing their valuation of communication activities and continuing review of its strategy, in order to allow flexible adaptation to face major demands.

# 2. REDD+ STRATEGY PREPARATION

## 2a. Assessment of Land Use, Land-Use Change Drivers, Forest Law, Policy and Governance

**Challenges**

- The areas identified for the implementation of pilot initiatives of REDD+ in the provinces of Cabo Delgado and Zambézia do not yet action plans in the short, medium or long term to address key issues about the right of use land, and the rights to natural resources, welfare and governance issues. There is need to establish these action plans and define the next steps and resources required, as an important basis for greater effectiveness of the activities of REDD+.

**Lessons learned**

- Although all stakeholders included in the process of preparing the strategy have in mind the main agents and causes of deforestation, they were also surprised with the relative weight and geographic distribution shown by the preliminary results of technical studies carried out. On the

one hand, the importance of similar studies for the preparation of strategies aligned to reality is shown, on the other hand there is na indication relevance queries in relation to them;

- The assessment of the relevant legislation and governance procedures of REDD+ in progress proved to be an important way to raise awareness among the various actors, in particular those of other ministries and Government institutions about the importance of multi-sector integrated strategies and participatory consultations. In this sense, it has shown to be not only a means of identification of problems and solutions, but an instrument of mobilization and awareness.

## 2b. REDD+ Strategy Options

**Challenges**

- The various causes of deforestation and the different characteristics of each region (and within each region) are a challenge when considering the national strategy to contain the deforestation. A National Strategy will be designed, but each jurisdictional programme must develop its own action plan to contain deforestation and forest degradation.

- Aligning the different instruments and international funds in order to create synergy and reduce transaction costs. In this regard, Mozambique is seeking to use funds from the FIP, Mozbio and other international cooperation projects to implement the national strategy for REDD + (which is also aligned with the integrated landscape management projects).

**Lessons learned**

- In order to create synergies with REDD+ initiatives in progress, Mozambique has learned that coordination is the keyword when preparing the national strategy for REDD+. The UT-REDD has managed to bring together several institutions that are developing REDD+ projects on the "ground", and aligning these initiatives with the national strategy, using the experiments already under way as grants and the lessons learned from each institution;

- The best way to resolve inconsistencies between the options of a national REDD+ strategy and the economic development programmes or policies in other sectors, is the involvement of sector entities with relevant role in these programmes. The workshops on strategy have counted with the participation of relevant sectors highlighted by the Ministry of Land, Environment and Rural Development, Agriculture and Food Security, Finance, Industry and Trade, as well as the FUNAB, INGC, climate changes, National Association of Farmers, among others, depending on the topic to be discussed.

## 2c. Implementation Framework

**Challenges**

- The creation of a new Ministry by integrating the areas of land, environment, forestry and rural development, and with clear objectives on sustainable management of natural resources opens an opportunity for the review of the forest legislation and therefore to better effectiveness of REDD+ activities;

- A REDD+ implementation framework should be further developed, including the establishment of key legal instruments for effective implementation, particularly of benefit sharing mechanisms and complaint and response mechanisms;

- There is a need to continue with the decentralization of REDD+ and strengthen regional/provincial institutions;

- There is a need for effective coordination of cross-sector activities, especially the regional development plans aimed at achieving a growth with low greenhouse gas emissions and at the same time generating wealth for the local communities.

**Lessons learned**

- REDD+ technical units were created, as well as provincial multi-stakeholder forums. Both aimed at coordinating initiatives that already exist and to plan activities aimed at rural development and reduction of deforestation in the province.

## 2d. Social and Environmental Impacts

**Challenges**

- There is a need to establish "Environmental and Social Management Framework (ESMF) in pilot projects after the approval of REDD + strategy options.

**Lessons learned**

- The use of pilot projects (integrated landscape management programs) as a concrete example for testing safeguards instruments enables the same instruments to be more robust. At the same time, prevents subsequent work of creation of new instruments, thus saves cost and time.

## 3. REFERENCE EMISSIONS LEVEL/REFERENCE LEVELS

**Challenges**

- Consideration of local and national circumstances in the establishment of the REL/RL at the sub-national and national level in Mozambique;

- Establishment of a national forest inventory to obtain basic data for the establishment of MRV at national level until 2018;

- Existence of national technical personnel properly trained and motivated for the establishment of the REL/RL in other provinces and at the national level;

- Unification of methodology between the various initiatives in progress.

**Lessons learned**

- Coordination and monitoring of the various ongoing initiatives was critical to reduce efforts and create synergies among all related initiatives;

- Discussion on the standardization and implementation of activities related to preparing the REL has shown to be important means of mobilization and coordination on wider issues between institutions that were working so segregated;

- The discussions on the development of broader debate on REL in Mozambique imply transactional costs on short-term, in particular with regard to the time required, but it has shown to be an effective way to overcome dissent caused by short-term prospects of the various institutions involved.

## 4. MONITORING FORESTS AND SAFEGUARDS SYSTEMS

**Challenges**

- Improving coordination between the institutions concerned or related to the national forest monitoring system;

- Improvement of the appropriate mechanisms for effective sharing of information on forest monitoring system and of MRV;

- Strengthening of the institutional capacity of the pilot projects to deal with relevant aspects about other benefits (non-carbon benefits) and safeguards;

- Existence of national technical personnel properly trained and motivated to work with the national forest monitoring system and MRV on medium and long term (especially after the ending of FCPF).

Table 7. Current situation of R-PP budget implementation

| Uses of FCPF Funds (in US$ ) as at July 30, 2015 | | | | | | | |
|---|---|---|---|---|---|---|---|
| R-PP Components | **Total needed (A)** [3] | **Funds pledged (B)** [4] | **Funds used** [5] | | **Funds available (=B-C)** | **Financing gap (=A-B)** | **Request to FCPF (if any)** |
| | | | **Funds committed (C )** | **Funds disbursed** | | | |
| 1. Preparation of R-PP/ Organization and consultation | 4 000 000,00 | 2 900 000,00 | 1 340 184,51 | 1 295 334,46 | 1 559 815,49 | 1 100 000,00 | 1 100 000,00 |
| 2. Preparation of REDD+ strategy | 2 300 000,00 | 900 000,00 | 1 322 631,24 | 555 143,34 | (422 631,24) | 1 400 000,00 | 1 400 000,00 |
| 3. Development of REL/RL | 1 700 000,00 | | | | - | 1 700 000,00 | 1 700 000,00 |
| 4. Design of monitoring system | 800 000,00 | | | | - | 800 000,00 | 800 000,00 |
| 5. Implementation of the Grievance Redress Mechanism | 200 000,00 | | | | - | 200 000,00 | 200 000,00 |
| TOTAL | 9 000 000,00 | 3 800 000,00 | 2 662 815,75 | 1 850 477,80 | 1 137 184,25 | 5 200 000,00 | 5 200 000,00 |

| Sources of Funds (in US$) | | | | | |
|---|---|---|---|---|---|
| | **Funds pledged (B) (4)** | **Funds used** [5] | | **Funds available (=B-C)** | **Remarks** |
| | | **Funds committed (C )** | **Funds disbursed** | | |
| FCPF [specific activities being supported by the FCPF] | 3 800 000 | 2 662 816 | 1 850 478 | 1 137 184 | |
| Government [specific activities being supported by the Government] | | | | - | |
| UN-REDD Programme (if applicable) [specific activities being supported by the UN-REDD] | - | - | - | - | |
| Other Development Partner 1 (name) [specific activities being supported by the Development Partner] **JICA** | 6 880 000 | | 4 680 000 | 6 880 000 | JICA Supports Mozambique in Forest Monitoring based on Japanese Remote Sensing Technology |
| FIP | 24 000 000 | - | - | 24 000 000 | The objective of the Forest Investment Plan (FIP) for Mozambique is to address the drivers of deforestation and to support the implementation of the REDD+ Strategy. The Investment PLan is still being prepared. |
| Mozbio | 3 000 000 | | | 3 000 000 | Mozbio Project will support the streghthening of the Gile Reserve and will support the community hunting block of Mulela |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | - | |
| TOTAL | | **37 680 000** | **2 662 816** | **6 530 478** | **35 017 184** | |

(3) Total amount of resources needed to complete a given component. All numbers in this table should be the latest numbers, which may not necessarily match the numbers in the original R-PP that was presented to the PC.

(4) Funds pledged encompass the amount of funds promised by different donors and / or the national government to fund a specific component and available to the country.

(5) Funds used refer to the amount of funds committed in signed contracts, and the portion of the funds committed that have already been disbursed.

# 4. ADDITIONAL FUNDING ACTIVITIES

The additional funds will support readiness activities in three R-PP components, namely:

- Readiness organization and consultation
- Reference emissions level/reference levels
- Monitoring systems for forests and implementation of the Grievance Redress Mechanism

The requested amount has been summarized in the table below.

Table 8. FCPF additional funding components/activities and budget

| **Components/activities supported with FCPF additional funds** | **Amount (USD)** |
|---|---|
| **1. REDD+ Readiness Management Arrangement, Legal Framework and preparation of Pilot Projects** | **2,500,000** |
| 1.1. Support to REDD+ Readiness Management Arrangements, communication and consultation activities | 1,100,000 |
| 1.2. Strengthening Mozambique's Forest Governance | 300,000 |
| 1.3. Preparation of Emissions Reductions Landscape Programs (studies, safeguard instruments, consultations, communication, coordination of activities, and team hiring, etc.) | 1,100,000 |
| **2. Reference Emissions Level/Reference Levels** | **1,700,00** |
| 2.1. Development of year reference cover maps | 500,000 |
| 2.2. Design and implementation of the national forest inventory | 960,000 |
| 2.3. Development of FREL/FRL | 240,000 |
| **3. Monitoring Systems for Forests** | **800,000** |
| 3.1. Preparation of MRV | 500,000 |
| 3.2. Purchase of equipment | 300,000 |
| **TOTAL** | **5,000,000** |

**Description**

**Component 1. REDD+ Readiness Management Arrangement, Legal Framework and Pilot Projects (2,500,000 USD)**

Under the original grant, the Government of Mozambique made significant progress on developing a strong cross-sector REDD+ coordination unit, and a multi-stakeholder national steering committee for the REDD+ Readiness Process (ComiteTecnico de Revisao - CTR), all created and governed by a national Decree. Progress has also been made in terms of national consultations and communication activities.

With the additional funding, activities under this component will support the National REDD+ Coordination Unit, as well as the regional coordination units in the provinces of Zambézia and Cabo Delgado. This component will finance (i) costs of the UT-REDD+; maintenance of meetings and workshops; support the National Steering Committee (CTR); communication activities; and consultation activities. ii) Strengthening Mozambique's forest governance; and iii) Preparation of Emissions Reductions Landscape Programs.

## 1.1. Support to the REDD+ Readiness Management Arrangements, communication and consultation activities (1,100,000 USD)

The AF grant will be used to support the operational expenditures of the National UT-REDD+, as well as the decentralization of the UT-REDD+ in Zambézia and Cabo Delgado provinces. It will also support the technical meetings of the National Steering Committee (ComitéTécnico de Revisão), as well as communication and consultation related expenses.

UT-REDD+ is composed by 8 technical experts, including: a technical assistant, a financial specialist, a procurement specialist, a pilot project coordinator, a safeguards specialist, a communication specialist, and 2 pilot project coordinators. There is a plan for hiring an MRV expert and a REDD+ Strategy technical assistant. This team plays an important role in coordinating all relevant stakeholders and on-going initiatives related to land use in the country.

The National Steering Committee (CTR) is the technical and advisory multi-stakeholder group mandated to provide supervision and technical advice on REDD+ issues to UT-REDD+ at the national level. It is also mandated to ensure compliance of UT-REDD+ activities with broader Mozambican legislation and advice on how to better MITADER integrated activities with those of other line ministries and relevant institutions. This AF will support the CTR regular meetings. At the provincial level, multi-stakeholder forums have been established in Zambezia and Cabo Delgado provinces to provide guidance on REDD+ activities and ensure coordination among provincial stakeholders and initiatives.

Communication activities under this grant will support the maintenance of the website, the preparation of communication material, campaigns, radio and TV spots.

Consultations activities are planned to be undertaken during the whole period covered by the grant, involving key stakeholders at the national, province and local levels.

## 1.2. Strengthening Mozambique's Forest Governance: *Update legal framework related to deforestation and forest degradation* (300,000 USD)

The legal framework of the forestry sector experienced a major breakthrough in the last 16 years in Mozambique. It started with the approval of basic instruments for forest management such as the forestry and wildlife law in 1999 and its regulations in 2002, and later with the approval of more specific instruments aimed at encouraging domestic wood processing (Decree No. 21/2011) and discouraging logging and commerce of illegal timber (Decree 30/2012 and Ministerial Decree 293/2012). Although efforts have been made for the implementation of those legal tools, the results have not yet enabled the reaching of envisaged sustainability in the management of national forest resources.

Non-sustainability in the production of biomass energy and illegal logging, including excess in harvested volume by licensed operators, is among the main drivers of deforestation and forest degradation. In particular, biomass energy in the form of charcoal or firewood is used by over 85% of urban households in Mozambique. The negative environmental impact associated with the mass consumption of charcoal

in urban areas is significant. This is most critical for the south region of the country where charcoal users in Maputo and Matola consume an equivalent of 1.8 million tonnes of wood per year.

This translates into 141,985 acres of forest destroyed or subjected to degradation annually just for charcoal and firewood production for domestic use. No significant efforts have been aimed at reforestation and sustainable forestry practices in production areas have been identified. On the other hand, recent studies have demonstrated that illegal logging in Mozambique showed an increasing trend in recent years, and that illegally harvested volume accounted to two thirds of the total commercial wood harvested volume in the country in 2012. The same reports point out that harvesting in excess of the allowed volume of the major commercial forest species constitutes a pervasive practice.

Thus, multiple and integrated approaches must be taken in order to address these drivers. Updating legislation to reflect Mozambique's new country reality and challenges is an important piece of this. The additional funds will be used for analytical studies that will contribute to strengthen the forest governance in Mozambique through recommendation for revision of forest related legislation.

## 1.3. Preparation of Emissions Reductions Landscape Pilot Programs (1,100,000 USD)

Based on new and holistic perspective of REDD+ named integrated management of landscapes, the UT-REDD+ began to approach ensuring coordination and integration of activities of REDD+ in a wider spectrum of sector and territorial programmes. Two pilot programmes of rural development support with emphasis on REDD+ activities are being developed in the provinces of Cabo Delgado and Zambézia. These programmes appear as a means to establish gradual institutionalization of REDD+ at the provincial level, as well as to test in the context of clearly defined integrated management programmes of landscapes, making it possible to generate lessons for the implementation of the national strategy of REDD+. The activities are expected to contribute significantly to the generation of knowledge and useful implementation lessons for the next phases of REDD+.

For the next three years, the identified activities in need of financial support through additional fund of the FCPF include: additional studies; public consultations in the areas of projects; communication activities; support to the local units of REDD+; support to provincial multi-stakeholders forums and other organizations of local or community management of natural resources; management and coordination of existing initiatives in the area of programmes; meetings; seminars; and testing of pilot activities in the field.

## Component 3. Reference Emissions Level/Reference Levels (REL/RL) (1,700,000 USD)

*Current activities.* The definition of REL/RL is a crucial aspect for the implementation of the system of monitoring report and verification (MRV). The establishment of REL/RL basically comprises two areas of activity: the preparation of maps (maps of forest cover and base maps for reference years) and the determination of emission factors.

JICA supports the forest inventory unit (FIU) of the National Directorate of forests in MITADER, on the establishment of reference levels and emission levels for the provinces of Cabo Delgado and Zambézia.

In this perspective, base maps for these provinces were prepared for the year 2008, using high-resolution satellite imagery, as well as their maps for the reference years.

JICA project is also supporting the FIU in conducting the forest inventory of Gaza Province, which should end in 2015, and the province of Cabo Delgado, which conclusion is scheduled for 2016. Based on the results of these inventories, the determination of forest emissions levels in both provinces is scheduled for 2017. Specifically, JICA is supporting:

- Design/update of sub-national stratification and inventory;
- Development of sample design and the conducting of statistical analysis for sub-national systematic monitoring: national carbon density stratification and determination of plots establishment requirements (permanent and temporary plots aimed at measuring carbon stocks as well as monitoring changes in carbon pools); and
- Development of protocols and implementation of measurements in all carbon pools.

The Government of Japan will provide additional funding and support the development of base maps for the remaining provinces in 2016 and 2017 based on Landsat 8 images from 2014/2015 with the aim of creating a country wide base map.

## 3.1. Development of historic land covers change maps (500,000USD)

For completion of the required information for development of REL/RL, the FCPF additional funding will be used for the implementation of some activities related to activity data in the other 8 provinces (development of historic land cover/land cover change maps) and for the establishment of emission factors (design and implementation of national forest inventory). Historic Land cover/land cover change maps will be developed using medium resolution imageries (LANDSAT). These additional funds will also support a strong team that will be mobilized for the development of the MRV products.

## 3.2. Design and implementation of the national forest inventory (960,000 USD)

Mozambique is designing a national forest inventory to estimate both forest stock and carbon stock. JICA is responsible for the forest inventory in the provinces of Gaza and Cabo Delgado. All the remaining provinces will be analyzed by 2018, using this additional funding.

## 3.3. Development of FREL/FRL (240,000 USD)

The development of FREL/FRL will be based in internationally recognized guidelines, including those of the UNFCCC. The JICA project is aiming to deliver the REL by 2017 for the provinces of Cabo Delgado and Gaza, but additional funding is required for the completion of this activity for the remaining provinces of Mozambique. The national level REL will consist of the sum of the provincial level RELs.

# Component 4. Monitoring Systems for Forests (800,000 USD)

JICA project is building capacity for the preparation of the forest monitoring system and is supporting the establishment of a Forest Resource Information Platform. Some information has been introduced in the system but other relevant information such as forest inventory, emission factors, reference level, is still needed.

## 4.1. Preparation of MRV (500,000 USD)

*Operationalization of the monitoring system*

JICA is supporting the development of a Forest Resource Information Platform that will contain information on REL/RL, MRV, Safeguards, Removal/emission monitoring, National REDD+ strategy, national REDD+ registry, forest administrative data and other relevant data. Appropriate emission factors estimate will require other set of data not provided by the forest inventory information. A comprehensive analysis of the secondary information, such as previous forest inventory raw data, local forest inventories, literatures, scientific papers and other sources, will be undertaken to estimate carbon stocks according to vegetation type. There is a need to improve exchange of information between the different groups and ensure that consistent standards are agreed and used to collect information so that results are comparable.

There are many initiatives collecting relevant data including DNTF/JICA, Etc Terra/AFD, IIED and UEM. However, data exchange and coordination between these groups is currently lacking. Better coordination will be guaranteed through establishing a steering/coordination body for the REDD+ NFMS/MRV system by means of:

- Linking MRV and policy;
- Coordinating and steering the implementation of REDD+ monitoring and capacity building activities;
- Providing key advice on REDD+ monitoring issues to policy makers and REDD+ implementing bodies; and
- Coordinating partnership and joint support systems with ongoing and planned REDD+ local implementation activities and their monitoring activities.

Additional funding of FCPF will be used to establish and operationalize an MRV task Force and NFMS/MRV system.

*Data collection and analysis for measurement of carbon stock*

Collection and analysis of other data such as the development of Carbon Conversion, Expansion Factors, Wood Density and Root/Shoot Ratio are also key for estimating emission factors. The activities should include: (i) generation of national factors through a process of destructive sampling; (ii) implementation of targeted sampling and surveys to establish national factors; and (iii) development of factors for carbon conversion, expansion factors, wood density for key species, root/shoot ratio based through destructive sampling program. Work on these and related issues is ongoing through academic institutions like UEM.

Some of this research is long term, and might take longer than the lifetime of the grant. To ensure that this work is carried out according to the best available standards, prior trainings on allometric equations will be organized, including field methods and statistical analysis. Also, depending on capacities and needs, funding could be allocated to support national collaboration, data sharing and publications related to biomass estimations.

*Identify potential technologies to detect forest degradation*

JICA project is focusing on deforestation. At the moment it is unclear if forest degradation is significant (preliminary analysis shows it might not be).The additional FCPF fund will be used to cover gaps in this component, namely:

- Acquire relevant data from national data sources and local studies on the use of patterns of fuel wood, charcoal and timber to test different proxy data for forest degradation processes;
- Include an assessment of monitoring forest degradation using Landsat-type data or for selected areas with higher-resolution data (study of feasibility to see whether areas affected can be detected accurately); and

- Assess and integrate satellite-derived fire and burnt area data records.

*Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards*

Non-carbon aspects and other impacts such as key quantitative or qualitative variables representing rural livelihoods enhancement, conservation of biodiversity, ecosystem services provision, key governance factors directly pertinent to REDD+ implementation in the country, and the impacts of the REDD+ strategy on the forest sector constitute key issues for MRV operationalization. The safeguard instrument is being developed through consultancy work supported by the original FCPF grant. Therefore, a study supported by FCPF additional funds will also be conducted to identify and address relevant non-carbon aspects, specifically:

- Establish system for periodically collecting and sharing consistent information on non-carbon aspects and safeguards;
- Clarify the mandates to perform tasks related to non-carbon aspects and safeguards; and
- Identify and estimate associated resource needs on non-carbon and safeguards (e.g., required capacities, training, hardware/software, and budget.

## 4.2. Acquisition of equipment and others (300,000 USD)

JICA project has supported UIF with a number of equipment for the development of activity data and forest inventory. Some equipment will be purchase with the additional fund to fill the existing gaps in MRV activities, including 5 work stations and licenses.

# ANNEXS

## Annex 1. Letter to FIP

REPÚBLICA DE MOÇAMBIQUE

**Expression of Interest to participate in FIP**

### I. Country and Government Agency Submitting the Expression of Interest

Mozambique's Ministry of Land, Environment and Rural Development (MITADER), Ministry of Agriculture and Food Security (MASA) and Ministry of Economy and Finance (MEF) are jointly submitting this Expression of Interest to Participate in the Forest Investment Program as a demonstration of the commitment of the new Government of Mozambique[1] in promoting sustainable forest and landscape management and rural development.

The recently-established **MITADER** now consolidates the responsibilities of Land (demarcation, land use planning, cadastre), Environment (regulations, enforcement and protected areas management) and Rural Development (poverty reduction in rural areas). This restructuring is a clear indication of the Government's vision and commitment to promote a landscape approach to forest management which places the well-being of people as both an end in itself and a means to promote conservation of forest resources.

The **Ministry of Agriculture and Food Security (MASA)** maintains its focus on promoting agriculture productivity and management of both natural and planted forests in the country. MASA and MITADER have been managing the Technical Unit for REDD+ since 2012.

The **Ministry of Economy and Finance (MEF),** which brings the former Ministry of Planning and Development and the Ministry of Finance into one Ministry, has been active on issues of Climate Change since 2010. MEF manages the Climate Change Unit (UMC), which has implemented the Pilot Project for Climate Resilience (PPCR), financed by the Climate Investment Funds (CIF)[2].

### II. Description of the Country and Sector Context and Forest-Related Climate Change Mitigation Potential

Mozambique has an area of 800,000 km$^2$, and a population of 25 million. The country is richly endowed with natural resources – arable land, forests, fisheries, water and mineral resources. Mozambique's economy has experienced some of the world's fastest growing rates since the end of its devastating civil war in 1992, with an annual average economic growth of around 7.5% in the last decade – largely driven

[1] The new Government took office in January 2015, after general elections in October 2014.
[2] Mozambique is part of the PPCR since 2010 with a $86 million investment plan. More information https://www.climateinvestmentfunds.org/cifnet/?q=country/mozambique

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by foreign investments. However, Mozambique continues to face profound development challenges, as rapid growth has not resulted in a significant reduction of poverty. Mozambique is still one of the world's poorest countries with about 54% of the population living below the poverty line. As evidenced by the country's low level of the Human Development Index (178 out of 187 countries in 2014), development challenges include basic health and education services, employment promotion, diversification of income sources and improving food security.

Poverty is mostly concentrated in rural areas where many households derive their income from agricultural and forestry related activities. As Mozambique continues its rapid development based on natural resources such as mining and, to a lesser extent, plantation agriculture and forestry, the challenge going forward will be to develop the nation economically while maintaining the productivity of the resource base upon which most of the population depends directly for their survival; water bodies, forests, soils, wetlands.

Mozambique Forest Sector

**Forest cover.** Forests, woodlands and other vegetation cover approximately 70% of Mozambique's total country surface. The **forest cover** area is **40.1 million ha** (51% of the **country**) of which 26.9 million ha are categorized as productive forests, suitable for timber production and 13.2 million ha are conservation areas of which some are under community management (See annex 2 for definitions). Mozambique's predominant forest ecosystem is the Miombo forest, which covers about two-thirds of the forest land in the country, mainly in the coastal region of central Mozambique, surrounding the Zambezi Delta. The Miombo forest provides a variety of biophysical ecosystem goods and services; provision of food, fuel, medicine and construction materials and carbon and water management services. Miombo woodlands are important reservoirs of above- and below-ground carbon, which has huge potential for carbon sequestration, especially in soils and woody biomass. Miombo is also important habitat for a variety of herbivores and carnivores, including large terrestrial mammals, some of which endemic to Mozambique and others endangered.

Mozambique is internationally recognized for its ecological richness and is home to important biodiversity hotspots with high levels of endemism such as Maputaland (coastal forests south of Maputo), the humid evergreen montane forests in the central and northern Mozambique, and the coastal dry forests in northern Mozambique. Other ecosystems include Mopane forests[3] in the semi-arid regions (in the valleys of Limpopo and Zambeze rivers), undifferentiated dry deciduous forests, and sub-humid sub-coastal forests near and on the coasts. Mozambique also has East and Southern Africa's largest mangrove forest, and the second largest mangrove cover area in Africa, covering around 357 000 ha (Sitoe et al 2014). Its extensive coastal mangrove forests and sea grasses are mainly distributed along the coastline in deltas, estuaries and protected shorelines, being concentrated in the northern and central regions. They are known to contain globally significant carbon pools, storing up to five times more carbon than typical upland tropical forests per area. In general, Mozambique has 1,692 million metric tons of carbon stocks in living forest biomass (UNEP Risoe, 2012).

**Forest plantations and the private sector.** Mozambique has significant potential for the promotion of small to large-scale commercial plantation. The Government has a goal of promoting the establishment of 7 million ha of planted forests (National Reforestation Plan). Recently, several companies have been establishing plantations in the country. Portucel, a world leading company on pulp and paper

[3] Mopane forest is dominated of the tree *Colophospermum mopane* (Caesalpiniaceae). It provides essential goods and services to communities; charcoal, firewood, building materials, fodder, medicinal plants, fruits, food and meat from some animal species.

production, is expected to promote over 200,000 ha of plantation in order to establish an ambitious and transformative pulp and paper industry in the country. The company is taking a landscape approach to the plantation (mosaic planting), whereby blocks of planted forests will be intermixed with the protection of the native Miombo and communal lands to maximize the environmental benefits from such plantations. The project has the support of the International Finance Corporation.

**Drivers of deforestation**

Mozambique's annual deforestation is high, at around 0.6%/year with 220,000 ha of forest land being lost every year (Annex 3 details deforestation rates per Province in Mozambique). This represents more than double the deforestation reported in 1994 (0.21%) (Marzolli 2007, Sitoe, 2003).

The **major drivers of deforestation and forest degradation** can be divided into direct and underlying causes (Argola, 2004, Marzolli, 2007, Mananze, 2012 Nhantumbo et al 2013). **The direct causes** include shifting cultivation, subsistence farming, agricultural expansion, removal of wood for domestic uses (e.g. fuel wood, charcoal production), logging (especially illegal), infrastructure expansion (e.g. mining), and uncontrolled fires, which contributes to major $CO_2$ emissions and other greenhouse gases. Forest conversion into agriculture and unsustainable production of biomass energy are the main direct causes of deforestation, while illegal logging leads to the degradation of native forest stands. **Indirect causes** include economic factors such as demand for export of timber and agricultural commodities (e.g. sesame seed, tobacco and cotton), demographic factors, in particular growth of urban population and the associated demand for agricultural products and charcoal, technological factors such as low agricultural productivity, low production efficiency and use of vegetal charcoal and lack of viable alternative sources of energy, and institutional factors, specifically low capacity, limited implementation and enforcement of laws and regulations.

**Forest-related Climate Change Mitigation Potential**

**Mozambique has significant potential to contribute to forest-related climate change mitigation,** including potential to reduce emissions from deforestation and enhance forest carbon stocks. Land use change and forest degradation account for over 80% of Mozambique's GHG emissions (Moye and Nazerali 2010). UNEP (2012) estimates that avoiding deforestation in Mozambique has the potential to contribute nearly 25 million tons in $CO_2$ emission reductions every year. Adding reforestation to these estimates would increase this number even more. Afforestation/reforestation initiatives aiming to replant 50% of the loss in forest cover during 2000-2005 (-219,000 ha), would require the regeneration of 109,500 ha of forest land, which could generate more than 12 million $tCO_2$ reductions annually, hence a total of 36 million $tCO_2$ every year.

**Several initiatives in the agriculture, forestry and biomass energy sectors can lead to climate change mitigation, many of which are at relatively low cost. In effect,** Mozambique's National Climate Change Adaptation and Mitigation Strategy (2013) identifies *Agriculture, forestry and other land uses* as one of the four strategic areas with most potential for emission reductions in the country. Since **agriculture** is one of the largest drivers of deforestation, **slash and burn agriculture** is an important potential intervention area for reduction of emissions. Tree based crops and agroforestry systems are two promising models in which smallholder farmers can be involved in the production of a large variety of crops and fruits that serve as sources of food and income while reducing deforestation and pressures on soil resources. The **forestry sector** can also contribute to the enhancement of carbon sequestration through a series of activities that promote forest regeneration, forest conservation, sustainable forest management, and the establishment of community and commercial forest plantations. The **biomass sector** can contribute through high-quality productive woodfuel plantations (fast-growing species) and

better management of existing forests which are harvested for fuel use, more efficient wood processing techniques (such as charcoal making) and more efficient energy use at domestic and semi-industrial levels (including improved cooking stoves). Mechanisms to **prevent the spread of wildfires** would help regeneration and growth of trees and avoid greenhouse gas emissions.

Vulnerability to Climate change

**Mozambique is one of the most climate vulnerable countries in the world.** It is the third ranked African country in terms of exposure to risks from weather-related hazards (drought, floods and tropical cyclones) and its low adaptive capacity and greater dependence of its population and economy on natural resources exacerbates its vulnerability to climate change. While the impacts from climate change on forests in Mozambique has not yet been fully assessed, forest degradation will likely increase vulnerability and decrease resilience of rural communities to changing climatic conditions; while frequency of forest fires and pest outbreaks could increase. FIP resources could complement and help scale up some of the proposed pilot investments under the Pilot Project for Climate Resilience (PPCR), especially related to natural resources sector (including watershed management and forestry)[4].

**There are great synergies between the adaptation and mitigation agendas in Mozambique.** To increase forests' adaptive capacity as well as contribute to emission reductions and local benefits, the Government aims to develop programs for the planting of trees with multiple uses and economic value, in order to meet the needs of local communities; enhancing local initiatives, fighting deforestation and preventing fires and their spread; exploring agro-silvo-pastoral systems to facilitate livelihoods and diversify income sources; promoting community programs to manage forest resources.

## III. Potential to Generate Enhanced Development Co-Benefits

**Over 70% of Mozambique's population live in rural areas and are heavily dependent on natural resources for their livelihoods.** The country's rich and dense forest and woodlands provide rural communities with several goods and services for subsistence, cash income and cultural reasons. It is estimated that in some areas, for example in the Gorongosa district, miombo woodlands contribute about 19% of household cash income and 40% of the household subsistence (non-cash) income. Non-timber products such as honey, mushroom harvesting and fruits are the main sources of livelihood for many rural communities. Forests are also highly important for the collection of traditional and modern medicines; it is estimated that over 200 medicinal plants are traded in the Maputo market alone. Around 80% of the country's population also depend on biomass as their primary source of energy, from fuel wood, charcoal and waste from agriculture.

**Improved management of woodlands has huge potential to enhance local communities' livelihoods as well as increase carbon sequestration potential.** The interface between forest and agriculture through a sustainable **forest landscape management approach** is particular desirable to reduce poverty in rural areas, through jobs and new income opportunities, and enhanced land productivity for agriculture and forest products. The main beneficiaries of FIP would be local forest and agriculture dependent communities, of whom many are women and vulnerable groups.

**Sustainable management of forests also have significant environmental benefits from biodiversity protection to water quality enhancement.** As an example, improved fire management reduce wildfires in biologically critical ecosystems while avoiding the emissions of GHG. Mozambique is highly affected

[4] Such as the Lurio Sustainable Forestry Project and the Sustainable Land & Water Resources Management Project

by wildfires. Nearly all of the forests in the central and northern parts of this country currently burn at least once a year, resulting in negative implications for the communities and the Miombo forest ecosystems. By implementing forest fire management activities communities can be protected from fires and prevent loss of valuable forest and wildlife resources that provide income-generating activities, whilst helping also to protect endemic species to —even those that are fire tolerant— regenerate.

The following crosscutting interventions illustrate ongoing and planned efforts that have important social, economic and environmental benefits:

- **Forest carbon projects that integrate afforestation and reforestation have the potential to address deforestation, while protecting biodiversity and providing social economic benefits to forest dependent communities in Mozambique**. A REDD+ pilot project under the Envirotrade Carbon Livelihoods Program has already demonstrated that organized community-based forest carbon projects can raise financing from voluntary carbon markets. Examples of social and economic benefits include construction of basic infrastructure such as water holes, contribution to the construction of schools and creation of community funds to support for emergency issues or community enterprise initiatives. Learned lessons from this program can help inform future project development under the FIP.

- **Climate smart agriculture and green supply chains** can generate income diversification among communities through the promotion of use of various crops and improving market access. It would also reduce reliance on slash and burn agriculture as improved agricultural techniques would improve soil conservation and increased land productivity as well as maximize environmental services. The government has already identified attractive opportunities for such programs. Within the Zambézia Emissions Reductions Program, proposed as a National REDD+ pilot project, an integrated landscape approach with focus on conservation agriculture of cashews will be implemented in Gilé and Pebane – the two best districts for cashew production in Mozambique. Private sector entities have expressed interest in working with local communities and making investments into processing facilities and further market access for cashew nuts.

- **Promotion of energy efficiency in sustainable charcoal production through the dissemination of improved biomass-making kilns across local communities could decrease deforestation and generate significant social, economic and health benefits**. Most of the charcoal in Mozambique is produced by the traditional earth kiln method, inefficiently and seldom achieving a wood-to-charcoal conversion efficiency of more than 15% while causing extensive local degradation and soil erosion due to the intense heat generated by kilns as well as deforestation due to the clear-cutting of trees and construction of kilns. A national REDD+ pilot Program around the Quirimbas National Park is currently identifying the potential for introducing more efficient charcoal-making technology.

- **Forest certification schemes or acquisition of efficient technologies for wood processing and production of higher value added products** could also contribute to the increase in revenues and profits for local communities. The forest legislation provides logging incentives for forest operators for the production of higher end products, yet further support to forest operators to access these kinds of benefits is needed. These kinds of activities could also help promote more private and community-led sustainable logging for international and domestic markets, protection of high conservation value forests for environmental services and tourism, and harvesting non-timber forest products for niche markets (such as fruit oils, art products, mushrooms and honey, particularly if certified as fair trade or organic).

The aforementioned opportunities for generating nationwide benefits for Mozambique's rural poor is building up to a new vision for sustainable resource management in our country. By taking advantage of current activities under the REDD+ Readiness process and other forest interventions, additional support from FIP could scale up this learning, fund wider dissemination and awareness and help translate the vision into transformational opportunities for communities.

## IV. Enabling Regulatory Environment And Capacity for Implementation

### REDD+ Readiness

**Over the past years, the Government has adopted a range of policy and institutional reforms that show commitment to the forestry and climate change agendas, which could be further scaled up through FIP to generate transformational change and reduce GHG emissions.** Implementation of the FIP in Mozambique would be fully embedded in the ongoing REDD+ process, which was initiated in 2008 and for which a FCPF grant agreement was signed in 2013. The country expects to be become 'REDD+ ready', that is, to prepare a Readiness Package for endorsement by the FCPF by June 2016.

**Mozambique has taken important steps towards REDD+ Readiness** the past two years:

- **Institutional arrangements.** The Technical Unit for REDD+ (UT-REDD) has been strengthened with full-time dedicated employees, as well as technical and political support from Government. The **Technical Revision Committee (CTR) for REDD+** has the goal of strengthening the inter-institutional coordination among sectors and stakeholders, being composed by representatives from eight key the Ministries, as well as representatives from the private sector, NGOs, and research institutions.
- A first draft of the **National REDD+ Strategy** is expected to be finalized by August 2015 building on ongoing analytical studies as well as broad communication and outreach to several stakeholders. In 2014, the UT-REDD+ established a dialogue platform with the civil society, private sector and NGOs that carries out communication and outreach.
- **Institutional framework for REDD+.** Mozambique adopted the Decree 70/2013 in December 2013, one of the few countries worldwide to establish rules and procedures to guide investments in REDD+ and defines the legal treatment of REDD+ demonstration projects.
- **Monitoring, Reporting and Verification.** The establishment of the national MRV system is being supported by the Japanese International Cooperation Agency (JICA) and is well resourced and well coordinated to be in place to support future measurements of results. The country is also currently reassessing its forest definition to better serve the purposes of REDD+.
- **Two large-scale landscape / REDD+ Programs** have been identified by the national government: the Zambézia Emissions Reductions Program; and the Quirimbas Emissions Reductions Program (further details in Annex 4). Other REDD+ initiatives are under implementation by other partners such as the one by the Envirotrade company in Sofala Province, and by IIED in the Beira Corridor.

### Legal and Institutional Framework for Forests and Climate Change

**Mozambique has a very progressive legal framework for the promotion of sustainable forest management.** Through forest sector legislation (Law on Forests and Wildlife, 1999) and regulatory procedures for land management (The Land Law 1997), Mozambique seeks to balance social, environmental and economic issues, paying special attention to the role and benefits of rural communities. Among Ministerial Decrees the following ones can be highlighted: i) the establishment of mechanisms to share 20% of revenues from wildlife and forestry exploration with the local communities that inhabit the areas where such exploration is taking place; ii) the establishment of a return of 40% taxes to private forestry operators that undertake secondary processing of wood. Mozambique has also

ratified various international conventions and regional protocols for managing forest resources. (See Annex 5)

Besides the above set of important legislation, Mozambique has also developed a number of relevant policies, strategies, plans and projects with the vision of aligning the development of the country with economical, social and environmental benefits. Some of these have a significant weight in guiding the country towards a reduction in deforestation and forest degradation rates (Annex 6 for details). Of note is **Mozambique's National Climate Change Adaptation and Mitigation Strategy** approved in 2012, which integrates disaster risk management actions, and consolidates priorities and targets for action on climate change into national socio-economic planning. Mozambique is one of the few countries in the world receiving budget support from the World Bank against the adoption of climate change-related legislation through the World Bank Climate Change Development Policy Operation (DPO). The three-phased $150 million DPO aims at strengthening national policy and institutional frameworks for climate action and mainstreaming climate resilience at sector level in key productive and social sectors. Some of the main achievements include the adoption of the Climate Smart Agriculture Action Program, the establishment of the Climate Change Coordination Unit within MEF and a preparation of a new disaster risk management law.

***Private sector engagement in sustainable forest management***

**The private sector is strongly engaged in the forest sector in Mozambique**. Over 179 forest concessions are currently active in the country, occupying an area of about 7 million ha. Each year an average of fifteen forest concessions are authorized and fourteen forest management plans are approved. One concession is certified by the FSC (TCT), which produces high-quality furniture for the domestic and international markets. Other companies have established forest-based companies with a strong community base, such as the Sofala Initiative in Beira, which is an alliance between a private company that produces high-end furniture and accessories, a woodcraft cooperative and the n'Hatanga community. The successful initiative demonstrates how local woodworkers can be supported to streamline and upgrade their production while at the same time assuring a sustainable timber supply from nearby community forests and enhancing value added in the local community sawmill.

**There is also interest from private companies in establishing commercial forest plantations for several purposes, including the production of pulp and paper, plywood and furniture.** Increased private sector participation in commercial forest plantations is aligned with one of the Government's strategic goals to diversify the economy. Wood production and wood-based value chains can provide off-farm employment and increase resilience of rural economies.

**Mozambique is also seeking to fully integrate the private sector in the REDD+ Programs and is actively exploring ways to bring results based payments as an additional incentive for communities and companies to form strong, mutually beneficial partnerships**. The Zambezia Emissions Reductions Program, in which Private sector interests are scaling up investments in promoting a greener supply chain for cashews and sustainable plantations, is an excellent example. The Program will pay smallholders a price premium for adopting more sustainable cashew producing practices, including the protection of nearby forest blocks and local biodiversity. The premium is expected to be paid by international companies that import the raw material, and are interested in a carbon- and deforestation-free commodity. The company is also interested in promoting outgrower schemes whereby smallholders would be integrated to the pulp and paper supply chain.

**However, the potential for further private sector engagement in landscape and forest management in Mozambique is large, however there are still missing legislation and legislation that needs correction.** Mozambique has been able to implement a series of restructuring initiatives that has produced positive results in a number of sectors, which led to the country's increase its position in the *Doing Business* report. In partnership with the World Bank, the Government is currently identifying the most important policy and regulatory changes needed to further promote planted forests in the country.

Capacity for Implementation

MITADER and MASA have a long experience of implementing World Bank and other complex multi-donor funded projects and have adequate institutional and technical capacity to effectively absorb additional funds and implement projects funded under FIP. There is experience in the establishment of autonomous public institutions to help manage environmental and agrarian development projects, examples being the Agrarian Development Fund (FDA, established in 2006), and the Mozambican Environment Fund (FUNAB, established in 2000, and currently managing the REDD+ Readiness funds from FCPF). The JICA funded project has helped to further build the institutional capacity, by providing training to over 35 technicians at the Provincial and National levels in various skills such as Remote Sensing and Carbon Stock Measuring. The ministries also have significant capacity on the ground, making use of their Provincial and Districtal representatives (e.g. Provincial Directorates of Agriculture and District Departments of Economic Activities), coordinating all the sector activities. In terms of conservation areas, MITADER is represented by ANAC (National Administration of Conservation Areas) as an autonomous public agency tasked with the management of all conservation areas. Within its framework, ANAC is be the initiator and mediator for important collaboration between the Government, private investors and local communities for innovative nature-based economic activities that will generate revenue for the long-term sustainability of the country's conservation areas. The FIP implementation would build on this institutional capacity.

***Multi-sectoral coordination.*** The highest governmental structure to discuss and communicate with the Council of Ministers issues related with environmental and sustainable development in Mozambique is the Council of Sustainable Development (CONDES). CONDES is presided by the Prime Minister and the Minister of MITADER. This vehicle will also help to support the inter-institutional coordination of REDD+.

Despite the existing capacity, challenges still remain such as overlap of mandates across institutions leading to certain delays in allocation of financial and human resources, limited clarity between institutions which results in inefficient law enforcement. To monitor and mitigate these risks there is further need to build capacity and provide technical assistance to all stakeholders in the forestry sector. Addressing these institutional challenges is critical, and recognized by the Government, who has already taken the first step to respond to the challenge by consolidating responsibilities of the responsible ministries into a new institutional framework (establishment of MITADER). These changes by the new government provide a strong foundation to avoid overlap of mandates in the future and streamline conservation/agriculture/and forestry efforts.

## V. Rationale for Selected Sectors for FIP Financing

**FIP financing is expected to result in sectoral transformation and pave the way for reduced GHG emissions and local benefits by providing much-needed investment financing for the implementation of structural reforms and integrated landscape management Programs.** FIP resources will be used to address the direct and indirect drivers of deforestation through actions that bring tangible benefits to communities. They will be fully aligned with the ongoing REDD+ process, and complement the

institutional support currently received from FCPF and JICA; and is expected to leverage significant financing from the government, and the private sector. The allocation of the FIP resources will be decided in a consultative fashion through the investment planning process; hence, this section should be read as preliminary options from the Government.

FIP investments will be implemented through an **integrated landscape management approach**, targeted at selected deforestation hotspots. These landscapes have significant areas of natural forests under threat, and several stakeholders managing these forests or affecting them (see Annex 4). This integrated landscape management approach will entail the coordination of activities across a wide range of stakeholders, including local communities, private sector involved in forestry and agriculture and several government agencies at the local, provincial and national level. For that, multi-stakeholder coordination fora will be established at the national (such as the Forest Forum) and local levels.

FIP resources would be invested in two strategic pillars:

1) **Enhancing the contribution of forests to rural communities' well-being** through legislative and policy changes, and investments in targeted forested landscapes. The **Policy changes** will aim to increase local communities' rights to land and forest resources, promote land use planning and community land demarcation, improve and implement benefit sharing mechanisms in the forest sector targeted at local forest communities. While **Investments** will scale-up existing successful initiatives of community-based forest management, by promoting community organization, capacity building, and the promotion of promising forest-based value chains and local industries, such as non-timber forest products (fruits, oils, medicinal plants) and locally-based forest enterprises (wood arts products such as handcrafts, carvings). Another key sub-sector will be the promotion of **climate smart agriculture** around forested landscapes and the promotion of **green supply chains**, such as cashew nuts and coffee, by involving smallholders in new deforestation-free agriculture practices.

An area with significant potential for generating income to local communities while protecting forest resources in the promotion **outgrower schemes around commercial reforestation led by the private sector.** This will allow local communities and landholders to be integrated in forest product supply chains, receive high-quality inputs for planting and technical assistance. Local communities would also be involved in the conservation and rehabilitation of those areas around the mosaic plantations zoned for protection. As mentioned above, the private firm Portucel has expressed interest in this approach, and could be an important partner for FIP implementation.

**Finally, the FIP will also promote the sustainability of the most significant forest sub-sector - biomass energy.** Mozambique expects to promote the adoption of more efficient semi-industrial charcoal making technology, with a strong emphasis on promoting incentives and regulations for the national private sector to get engaged in the sector. Through efficiency improvements of charcoal-making kilns, significant less wood would be needed. In addition, Mozambique will scale up successful initiatives to promote community management of natural forests for sustainable biomass.

2) **Strengthening forestry sector governance.** Three main areas will be strengthened through policy regulatory changes and investments:

a) **Strengthen government institutional capacity to promote landscape management**, particularly in the Provinces where integrated landscape Programs have been identified. Particularly important will be strengthening capacity in law enforcement to address illegal activities. This will also include the adoption of state-of-the-art technologies to address illegal logging.

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b) **Management of natural forests under concessions with the private sector.** The government will create new incentives for private sector concession holders to improve their management practices, including the adoption of certification and the promotion of rehabilitation of degraded areas in their forest areas.

c) **Promotion of a robust commercial forestry sector.** Establish policies and incentives for the private sector to be further involved in the management of natural forests and in the establishment of commercial plantation, particularly by facilitating the integration of smallholders in the supply chain and by ensuring compliance with the highest standards for forest management. Mozambique also aims to adopt regulations and incentives for the national private sector to add value to forest products from both native and planted forests nationally.

**Implementing such a strategy will certainly be challenging, however, the new Government is fully committed to promoting sustainable landscapes that generate revenues for local communities and maximizes environmental services.** The new Government has already taken concrete steps towards stronger inter-sectoral coordination, by establishing the MITADER. FIP resources would complement well the Government's ambitions for a low-carbon growth pathway, since the availability of significant financial resources in the forest sector has been a major stumbling block to transform the sector.

The Government of Mozambique expresses their greatest satisfaction and gratitude to the opportunity of submitting this Expression of Interest and looking forward to results from the FIP Committee.

To Your Consideration:

Celso Ismael Correia

Minister of Land, Environment and Rural Development

José Candungua Pacheco

Minister of Agriculture and Food Security

Adriano Afonso Maleiane

Minister of Economy and Finance

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Minister of Land, Environment and Rural Development

José Condugua Antonio Pacheco

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Minister of Agriculture and Food Security

Adriano Maleane

_____

Minister of Economy and Finance

## Annex 2. REDD+ available documents http://www.redd.org.mz/page.php?id=64

- Decree on the approval of REDD+ projects-for public consultation.
- Regulation of the procedures for approval of demonstration projects aimed at REDD+-public consultations
- Report on the dissemination of the Decree of REDD+ at the level of the provincial governments.
- Public consultation workshop on the Decree of REDD+ Mozambique-lists of participants. (July 2014) ( August 2014)
- Press release: Workshop on the Legal framework of REDD+ in Mozambique
- Program of the event in Portuguese language
- REDD + financing sources: donors and market. (in Portuguese)
- Legal requirements for a successful implementation of REDD+ in the perspective of the implementers and the lessons learned in sub-Saharan Africa. (In English)
- Community carbon sequestration project-Nhambita (in Portuguese)
- Benefit sharing mechanism for REDD-key issues (in Portuguese)
- Experiences in the federal and State level in Brazil (in Portuguese)
- REDD pilot project in Madagascar-Makira and recipes of REDD (in English)
- REDD+ initiatives in Mozambique-an overview (in Portuguese)
- REDD+ draft in Mozambique-an update (in Portuguese)
- Forest concessions and communities in Mozambique (in Portuguese)
- Elements for REDD+ in Brazil (in Portuguese)
- REDD+ in the Democratic Republic of the Congo: institutional framework and associated tools to guide the country readiness
- Regulations of REDD+ in the Democratic Republic of the Congo-(in Portuguese)
- Tanzania's experience in the development of pilot initiatives for sharing benefits of REDD+ (in English)
- A model of participation in REDD+ agreement-lessons from Costa Rica, Ecuador and Mexico (in Portuguese)
- Public consultations on the Decree of REDD+ report on the activities of REDD+
- World Bank Mission to Mozambique-February 2014
- First meeting of presentation of the progress of preparation of information material
- Report of the trip to Brazil
- Meeting of the UT-REDD+ 05.05.2014
- Meeting of the UT-REDD+ 14.07.2014
- Meeting of the UT-REDD+ 16.06.2014
- Meeting of the UT-REDD+ 21.04.2014
- Meeting of UT-REDD+ 08.06.2013
- Technical meeting for Preparation of the plan of implementation of REDD+
- Second consultation meeting for Forest definition-Beira
- Workshop on REDD+ initiatives in Mozambique
- Workshop for preparation of information Material
- Regional Workshop on definition of Forests – Maputo
- North Regional Workshop on definition of Forests-Pemba

## Annex 3. Communication materials prepared by UT-REDD+

Sobre o REDD+

O que é o REDD+?

Quais são os objectivos do REDD+?

REDD+

Promover agricultura sustentável e de maior rendimento

*Redução de Emissões do Desmatamento e Degradação de Florestas*

Agricultura de Conservação

*"REDD+ não é só florestas, mas a interacção de todos os sectores de desenvolvimento"*

*Fazer agricultura de conservação e sistemas agroflorestais evita o desbravamento de novas machambas e a produtividade é maior quando comparado à tradicional agricultura itinerante.*

Promoção da Agricultura de Conservação

Outros Sectores Importantes

Produção de biomassa dentro de uma área de conservação vira um biodiversidade

**Há desmatamento mesmo dentro das áreas de conservação**

As causas desmatamento e degradação florestal em Moçambique encontram-se em todas as categorias de uso de florestas. Mesmo as áreas de conservação são ameaçadas pelo desmatamento e degradação de florestas. Culturas agrícolas são plantadas, caça furtiva, corte ilegal de madeiras são indicados como ameaças às Áreas de Conservação.

## Sobre o REDD+

**O que é o REDD+?**

O REDD+ é um mecanismo em debate, no âmbito da Convenção Quadro das Nações Unidas sobre as Mudanças Climáticas, em que os países que estão dispostos e em condições de reduzir as emissões por desmatamento deveriam ser compensados financeiramente por fundos.

**Quais são os objectivos do REDD+?**

O REDD+ tem como meta reduzir as causas das mudanças climáticas. Este representa um conjunto de acções que incluem evitar o desmatamento e a degradação florestal, promover o maneio florestal sustentável, promover a conservação de ecossistemas e biodiversidade, aumentar os stocks de carbono, entre outras acções. O mecanismo do REDD pode simultaneamente abordar as mudanças climáticas e a pobreza rural, ao mesmo tempo que assegura a biodiversidade e dá sustentação a serviços ambientais vitais.

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# REDD+

***Conservar a biodiversidade e promover o ecoturismo***

***Redução de Emissões do Desmatamento e Degradação de Florestas***

## Conservação de Florestas e Eco-Turismo

A redução do desmatamento pode ser feita através de programas que promovam a conservação. A actual rede de áreas de conservação, que inclui parques nacionais, reservas florestais, coutadas de caça, e florestas de locais oferece oportunidades de reduzir o desmatamento e degradação de florestas dentro dessas áreas. Para além de conservar importantes stocks de carbono, as áreas de conservação podem ser usadas para promover o ecoturismo, e assim gerar renda e emprego para as populações locais.

## Conservação de florestas e biodiversidade

A Conservação de florestas pode criar as condições de base para a conservação de biodiversidade e desenvolvimento de indústrias de ecoturismo. A participação da comunidade na gestão de locais comunitários é uma prática comum e pode ser incentivada no sentido de melhorar e diversificar as fontes de renda de famílias rurais. As florestas, para além de armazenarem carbono a longo prazo, são importantes repositórios de biodiversidade animal e vegetal. O REDD+ reconhece e valoriza a necessidade de conservação de biodiversidade como um dos elementos de base para ligar a mitigação à adaptação.

*"REDD+ não é só florestas, mas a interacção de todos os sectores de desenvolvimento"*

*Valorizar a biodiversidade e promover o turismo ecológico é uma forma de reduzir o desmatamento e degradação florestal.*

Lodge comunitário numa área de conservação

## Outros Sectores Importantes

**Energias Novas e Renováveis**

**Agricultura de Conservação**

**Pecuária Florestal Sustentável**

**Reflorestamento e plantio de árvores**

**A produção de carvão vegeta sem replantar as árvores é uma das causas desmatamento e degradação florestal**

As causas desmatamento e degradação florestal em Moçambique são múltiplas e complexas. Entretanto, estudos anteriores referem que o uso de lenha e carvão como fonte de energia tanto doméstica como industrial, produzido em florestas sem sendeiro regime de manejo, está a causar o desmatamento. Estima-se que o consumo doméstico e industrial de energia lenhosa é cerca de 17 milhões de toneladas por ano.

## Sobre o REDD+

**O que é o REDD+?**

O REDD+ é um mecanismo em debate, no âmbito da Convenção Quadro das Nações Unidas sobre as Mudanças Climáticas, em que os países que estão dispostos a ser candidatos de reduzir as emissões por desmatamento deverão ser compensados financeiramente por fazê-lo.

**Quais são os objectivos do REDD+?**

O REDD+ tem como meta reduzir as causas das mudanças climáticas. Este representa um conjunto de acções que incluem evitar o desmatamento e a degradação florestal, promover o maneio florestal sustentado, promover a conservação de ecossistemas e biodiversidade, aumentar os sinais de carbono, entre outras acções. O mecanismo do REDD pode simultaneamente abordar as mudanças climáticas e a pobreza rural, ao mesmo tempo que assegura a biodiversidade e dá sustentação a serviços ambientais vitais.

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# REDD+

***Promover a utilização de energias novas e renováveis para reduzir o desmatamento***

***Redução de Emissões do Desmatamento e Degradação de Florestas***

## Promoção do uso Sustentável de Energia Lenhosa

O uso de energia lenhosa em si não é um problema, o principal problema é a fonte desta energia ser uma floresta sem nenhum regime de maneio onde não há qualquer atividade de reposição das árvores cortadas. Promover o uso sustentável de energia lenhosa como uma fonte renovável é uma opção válida no REDD+. O uso sustentável preocupa-se não só a reposição, mas também o uso de formas e fogões de maior eficiência.

## Energias renováveis e alternativas

O uso de de energias renováveis é uma forma de reduzir as emissões, a começar pelo aumento da eficiência na utilização do combustível lenhoso, usando fogões poupa-lenha, biocombustíveis, painéis solares, electricidade, e a utilização de gas natural (que apesar de ser um combustível fóssil tem baixas emissões).

*"REDD+ não é só florestas, mas a interacção de todos os sectores de desenvolvimento"*

*Desenvolver e melhorar o acesso a energias alternativas à lenha e carvão tem um potencial muito grande para reduzir o desmatamento em Moçambique.*

O uso de painéis solares como fonte alternativa de energia

## Outros Sectores Importantes

**Turismo e Conservação**

**Maneio Florestal Sustentável**

**Agricultura de Conservação**

**Reflorestamento e Plantio de Árvores**

Sobre o REDD+

O que é o REDD+?

Quais são os objectivos do REDD+?

Exploração florestal não sustentada

REDD+

Promoção do Maneio Florestal Sustentável

MFS gera emprego e renda para famílias rurais

Outros Sectores Importantes

Abate de árvores para alimentar o mercado

### Corte de árvores sem reposição

Uma das causas principais do desmatamento e degradação florestal é a falta de reposição das árvores que são cortadas para diversos fins. Desconhecer a contribuição das florestas para o crescimento económico local e nacional, pela madeira, energia lenhosa, e outros produtos florestais. Interessante a taxa elevada de exploração sempre que as árvores que são cortadas sejam repostas. O plantio de árvores é ainda muito reduzido quando comparado com a taxa de abate.

## Sobre o REDD+

### O que é o REDD+?

O REDD+ é um mecanismo em debate, no âmbito da Convenção Quadro das Nações Unidas sobre as Mudanças Climáticas, em que os países que estão dispostos e em condições de reduzir as emissões por desmatamento deverão ser compensados financeiramente por fazê-lo.

### Quais são os objectivos do REDD+?

O REDD+ tem como meta reduzir as causas das mudanças climáticas. Este representa um conjunto de acções que incluem: evitar o desmatamento e a degradação florestal, promover o maneio florestal sustentado, promover a conservação de ecossistemas e biodiversidade, aumentar os stocks de carbono, entre outras acções. O mecanismo do REDD pode simultaneamente abordar as mudanças climáticas e a pobreza rural, ao mesmo tempo que conserva a biodiversidade e dá sustentação a serviços ambientais vitais.

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# REDD+

***Plantar árvores e criar oportunidades de produção de bens e serviços de ecossistemas***

***Redução de Emissões do Desmatamento e Degradação de Florestas***



## Plantio de árvores

O plantio de árvores pode ser feito a escala industrial, para produção de diversos produtos florestais como a madeira, papel; mas também pode ser feito em moldes de pequena escala por comunidades ou famílias para a produção de lenha, frutos, sombra, fertilização do solo, bordaduras, entre outros. As pessoas e as comunidades podem decidir que árvores querem plantar dependendo das condições agro-ecológicas do sítio e de outros aspectos como o mercado e procura de serviços. A definição dos direitos das famílias e comunidades sobre as árvores que plantam e das florestas que estes cuidam devem ser claramente definidas.

A Estratégia Nacional de Reflorestamento em Moçambique orienta sobre o tipo de plantações que podem ser feitas. A sua implementação não deve ser vista de forma isolada, e deve ser integrada com outros sectores como a agricultura e energia, os quais têm um impacto grande no desmatamento.

## Plantio de árvores

O plantio de árvores para além de contribuir para o aumento do stock de carbono, contribui para o crescimento rural através da produção de bens e serviços de utilidade local, incluindo, por exemplo, a produção de lenha, frutos, sombra, fertilização do solo, bordaduras, entre outros. Actividades de reflorestamento industrial contribuem para o crescimento nacional, a produção sustentada de madeira e outros produtos florestais, para além de contribuírem para a geração de emprego rural em actividades de plantação e manutenção de plantações.

*"REDD+ não é só florestas, mas a interacção de todos os sectores de desenvolvimento"*

*O plantio de árvores e o reflorestamento são acções que devem estar ligadas ao processo de produção de produtos florestais de maneira sustentada, à agricultura sustentada e à produção de energia de biomassa.*



Envolvimento de comunidades em programas de reflorestamento e plantio de árvores

## Outros Sectores Importantes

**Energias Novas e Renováveis**

**Turismo e Conservação**

**Agricultura de Conservação**

**Planeta Florestal Sustentável**

MINISTÉRIO DA TERRA, AMBIENTE, E DESENVOLVIMENTO RURAL

# O REDD+ em Moçambique: oportunidades, riscos e desafios

## O que é o REDD+

O REDD+ é um mecanismo em debate, no âmbito da Convenção Quadro das Nações Unidas sobre as Mudanças Climáticas, em que os países que estão dispostos e em condições de reduzir as emissões por desmatamento deveriam ser compensados financeiramente por fazê-lo.

## Quais são os objectivos do REDD+

O REDD+ tem como meta reduzir as causas das mudanças climáticas. Esta representa um conjunto de acções que incluem evitar o desmatamento e a degradação florestal, promover o maneio florestal sustentado, promover a conservação de ecossistemas e biodiversidade, aumentar os stocks de carbono, entre outras acções. O mecanismo do REDD pode simultaneamente abordar as mudanças climáticas e a pobreza rural, ao mesmo tempo que conserva a biodiversidade e dá sustentação a serviços ambientais vitais.


## As causas do desmatamento e degradação florestal em Moçambique

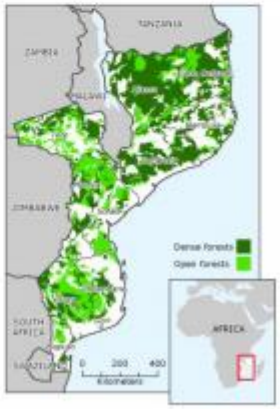
Em Moçambique, onde o parque industrial e automóvel ainda é reduzido, a conversão de áreas de florestas para agricultura itinerante, as queimadas descontroladas, e a utilização de lenha e carvão como fonte de energia constituem as principais fontes de emissões, com cerca de 80%. Essas emissões estão associadas ao desmatamento e degradação de florestas, ameaçando todo o tipo de florestas naturais independentemente do regime de uso, tipo florestal e localização.

## As consequências das Mudanças Climáticas são de âmbito global e já se fazem sentir em Moçambique

Entre os impactos verificados estão as secas cíclicas, as depressões tropicais, a subida do nível das águas do mar, entre outras, o que por sua vez pode causar destruição de infraestruturas, perda de culturas agrícolas, insegurança alimentar e desnutrição principalmente nas crianças.

## Moçambique tem potencial para reduzir o desmatamento e promover o plantio de árvores, e assim contribuir para a mitigação e adaptação às mudanças climáticas

Moçambique tem uma cobertura florestal de cerca de 40 milhões de hectares, correspondentes a cerca de 50% da superfície nacional. Entretanto, a taxa de desmatamento é estimada em cerca de 219 mil hectares por ano, correspondente a 0.58%.

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## Oportunidades de implementação do REDD+ em Moçambique

O **aumento da produtividade agrícola** é imprescindível, para que o aumento da produção não signifique aumentar as áreas cultivadas, e as florestas convivam lado-a-lado com a agricultura. Neste contexto, a agricultura de conservação constitui uma opção alternativa à agricultura itinerante.

O **plantio de árvores** é uma tarefa muito importante não apenas para o armazenamento de carbono, mas também para utilidade local, tal como por exemplo na protecção costeira nos mangais, a combinação com a agricultura em forma de sistemas agroflorestais, as plantações de parcelas comunitárias ou familiares para produção de estacas e postes, e plantações industriais para produção de madeira industrial e seus derivados.

O **Maneio Florestal Sustentado** significa adicionar valor aos produtos florestais, gerar emprego para as comunidades rurais, e reduzir as exportações de produtos florestais. A exploração florestal com base em concessões de longo prazo propicia a promoção da indústria rural e infraestrutura associada, bem como a atribuição de 20% da taxa de exploração de madeira para as comunidades vizinhas.

A **conservação de florestas** para a conservação de biodiversidade e desenvolvimento de iniciativas de eco-turismo. A participação da comunidade na gestão de *lodges* comunitários é uma prática comum e pode ser incentivada para melhorar e diversificar as fontes de renda de famílias rurais.

O **uso de energias novas e renováveis**, a começar pelo aumento da eficiência na utilização do combustível lenhoso, usando fogões poupa-lenha, biocombustíveis, painéis solares, e a utilização de gás natural (que apesar de ser um combustível fóssil tem baixas emissões).

### Riscos

- Causas de desmatamento fora do sector de florestas
- Pagamento por desempenho e o mercado de carbono
- Reduzir o desmatamento implica mudanças
- Experiências recentes no sector de florestas

### Desafios

- Capacidade institucional
- Alinhamento e harmonização de políticas e estratégias
- Definir os direitos sobre o carbono

### Conclusões

- Não há contradição entre o REDD+ e as opções de desenvolvimento em Moçambique
- Quando bem implementado, o REDD+ tem o potencial para impulsionar o desenvolvimento
- No actual contexto político e legal Moçambicano, existem vários pontos de entrada para a implementação do REDD+
- Precisa alinhar as actividades elegíveis com as acções referidas nos planos estratégicos sectoriais, particularmente na agricultura, florestas, energia e áreas de conservação e turismo
- Há desafios a considerar, particularmente a capacitação das instituições locais e os diferentes actores do sector público, privado e sociedade civil

## REDDY & ENDY

cartoon publicável no jornal

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## Missão

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## Desmatamento e degradação florestal

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## Agricultura de conservação

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Combustível lenhoso e energias alternativas

Direitos das comunidades

Eco-turismo e conservação de biodiversidade

Cortar ou não árvores?

Stocks de carbono

## Annex 4. Public consultations funded by the FCPF

| Nr | Event | Venue | Date | Participants | | |
|---|---|---|---|---|---|---|
| | | | | Men | Women | Total |
| 1 | Legal and Institutional Framework | Maputo city | 01.06.2015 | 20 | 14 | 34 |
| 2 | Regional public consultations on the Decree of REDD+ | Maputo | 03.06.2013 | 25 | 39 | 66 |
| 3 | " | Beira | 04.06.2013 | 32 | 11 | 43 |
| 4 | " | Nampula | 06.06.2013 | 26 | 13 | 39 |
| 5 | Consultation on the definition of forests | 17.03.2015 | Maputo | 21 | 8 | 29 |
| 6 | Public consultation on the definition of forests | 07.1.2014 | Pemba | 26 | 6 | 32 |
| 7 | Second consultation on Forest definition | Beira | 19.11.2014 | 40 | 10 | 50 |
| 8 | Workshop on REDD+ initiativesd in Mozambique | Maputo | 18.03.2015 | 29 | 20 | 49 |
| 9 | Technical meeting for the preparation of the implementation of REDD+ | Maputo | 01-04.04.2014 | 5 | 7 | 12 |
| 10 | Meeting for the preparation of information materialo | Maputo | 28.10.2014 | 28 | 13 | 31 |
| 11 | Meeting of the progress of information material | Maputo | 27.10.2014 | 5 | 2 | 7 |
| 12 | First workshop of harmonisation of EM-REDD+ | Maputo | 11.06.2015 | 22 | 9 | 31 |
| 13 | Kickoff meeting for the elaboration of EM-REDD+ | Maputo | 12.6.2015 | 7 | 8 | 15 |
| 14 | Workshop on social comunication | Maputo | 30.06.2105 | 15 | 2 | 17 |
| 15 | Workshop with the CTR | Maputo | 08.07.2015 | 11 | 4 | 15 |
| 16 | Workshop on Forest definition | Maputo | 09.07.2015 | 13 | 5 | 18 |
| 17 | Second workshop for harmonization of EM-REDD+ | Maputo | 15.07.2015 | 14 | 10 | 24 |
| 18 | Workshop on Vision and Mission of EM-REDD+ | Maputo | 28.07.2015 | 37 | 20 | 57 |
| 19 | Workshop on the potential of Emission Reductions | Maputo | 18.08.2015 | 34 | 27 | 61 |
| 20 | Consultations on Social Analysis and Strategic Environment (SESA) | Quissanga, Cabo Delgado | - | 52 | 126 | 178 |
| 21 | “ | Montepuéz, Cabo Delgado | - | 61 | 40 | 101 |
| 22 | “ | Macomia, Cabo Delgado | - | 41 | 20 | 61 |
| 23 | “ | Meluco, Cabo Delgado | - | 27 | 51 | 78 |
| 24 | “ | Pebane, Zambézia | - | 35 | 35 | 70 |
| 25 | “ | Gilé, Zambézia | - | 42 | 75 | 117 |
| Total | | | | 668 | 575 | 1235 |

## Annex 5. Outline of the Seminar on RELs/RLs (20/02/15)

(Source: JOFCA interim project report 2015)

Presentation 1: Outline of REDD+ and update of the negotiations at the COP meetings

Presentation 2: Introduction to REL/RL

(1) Definition of REL/RL

(2) General rules on setting REL/RL

Presentation 3: Methodology of development of REL/RL

(1) Analysis of historical forest changes

1) Arrangement of the historical data

a. Arrangement of the activity data (use of the satellite data)
   - Existing country specific data for Mozambique
   - Data that have to be newly developed

b. Arrangement of the emission factors (use of the inventory data, biomass data, etc.)
   - Existing country specific data for Mozambique
   - Data that have to be newly developed

c. Other Issues

2) Estimation of the forest carbon stock at each time point in the historical reference period

3) Analysis of the forest carbon stock change between the time points in the historical reference period

a. Direct causes of forest changes

b. Drivers that affect forest changes

(2) Extrapolation of the historical forest changes to estimate the future forest changes

1) Methods of extrapolation

a. Historic average

b. Projection models (development of regression models)

2) Taking into account the national circumstances

a. Factors to be considered as the national circumstances

b. Consideration of access to the data needed

(3) Matters to be considered for setting REL/RL

1) Stratification

a. by the agro-eco-regions

b. by the administrative boundary

2) Tier level to be aimed at

Presentation 4: Present situation on development of REL/RL in other countries

Presentation 5: Case study 1 –Deforestation forecasting modelling developed in Madagascar and another approach applied in Gile National Reserve (AFD project)

Presentation 6: Case study 2 –calculation of REL/RL in Vietnam (JICA project)

Presentation 7: Issues on Development of RELs/RLs in Mozambique

(1) Forest definition of Mozambique

(2) REDD+ activities to be included

(3) Carbon pools to be included in REL/RL

(4) Approaches to REDD+ (national or subnational)

(5) Preparation of the activity data

(6) Preparation of the emission factors

(7) Method of extrapolating the historical forest change

## Annex 6. Main issues highlighted in the REL/RL seminar organized by JICA project (20/02/215)

(Source: JOFCA interim project report 2015)

- For deciding the forest definition, it is necessary to clarify advantages and disadvantages of the values to be chosen within the range given for each of the minimum area, minimum height and minimum forest cover. If the minimum forest cover is set at 30%, maximum value within the range, for example, many forests in the country are not counted as forests and therefore, activities like reducing emissions from deforestation and reducing emissions from forest degradation will not become eligible. Furthermore, results of the on-going survey by the FCPF support will have a large impact on decision making on the forest definition.

- In many of the forests in Mozambique (e.g. Gile National Reserve), more carbon is stocked in the soil than in the tree as biomass, and therefore, the soil is considered to be an important carbon pool. Moreover, if the measurement is difficult, there is an option of using the default values (Tier 1).

- Because costs of implementing biomass measurements are high, many countries use Tier 1 and Tier 2 in combination.

- Defining length of the historical reference period needs clarification of how the set length affects RELs/RLs.

- Methods of extrapolating of the historical forest changes depend on the initiatives (e.g. result based payment under the UNFCCC, FCPF Carbon Fund) to which Mozambique submit RELs/RLs.

- Population is considered to be a useful factor to be counted as a national circumstance to adjust RELs/RLs to bring more benefit to Mozambique.

## Annex 7. Result of the analysis of the RELs/RLs developed in the past

(Source: JOFCA interim project report 2015)

**Forest definition:** Most of the countries define the forests within the ranges given for three parameters under the Kyoto Protocol. There is not remarkable trend found on the minimum forest area and the minimum average height. As for the minimum forest cover, the countries with lower forest cover rate such as Mexico, Nepal and Vietnam set the minimum forest cover at 10 %, the minimum value in the given range. These countries can maintain the area eligible for activities such as reducing emissions from deforestation and reducing emissions from forest degradation by setting the minimum forest cover low. This way of thinking can also be applied to Mozambique where the forest cover is low. On the other hand, a survey on the forest definition has been implemented in Mozambique with the support of FCPF and its result is expected to have a large impact on decision making on forest definition in Mozambique.

**REDD+ activities to be implemented:** While all of the countries listed in the table include "reducing emissions from deforestation", "reducing emissions from forest degradation" is included by less than a half of the listed countries due to difficulty of monitoring. Moreover, the countries with lower forest cover rate tend to include "enhancement of forest carbon stocks". Many of the countries listed in the table mention that more activities will be included according to the stepwise approach.

**Carbon pools to be counted:** While AGB and BGB are counted by many countries as carbon pools to include, deadwood, litter and soil are excluded from the carbon accounting by most of the countries. Difficulty of monitoring is considered to be one of the reasons. On the other hand, many countries mention that more carbon pools will be included in the calculation as more data become available.

**Scale of RELs/RLs:** All of the listed countries but Ecuador and Guyana have developed or are developing sub-national RELs/RLs. This is partially due to adopting the stepwise approach. In another aspect, Brazil considers the national REL/RL as a result of combining all the sub-national RELs/RLs. In Mozambique, whether the RELs/RLs are set in the national level or sub-national level is still under discussion, it is considered necessary to conclude, taking into account the aspects described in "1. Project implementation method", "1.4 Activities related to Output 3", "(2) Analysis of the RELs/RLs developed in the past".

**Historical reference period:** Most of the countries set the reference period around 10 years. Among the countries listed in Table 2.6.3, those developing the RELs/RLs for ICPF Carbon Fund have to set the reference period in 10 years or shorter in accordance with its guideline (the reference period for the FCPF Carbon Fund can be extended to 15 years with justification). It is possible to set longer reference period under UNFCCC; in order to set a long reference period, however, it needs explaining that deforestation

**The number of forest classes:** The number of forest classes varies in the countries. The forest should be divided in an appropriate level, considering inventory results, resolution of the satellite image used, difficulty of the monitoring. The 2006 IPCC Guidelines for National Greenhouse Gas Inventories also recommend that the forest be stratified into homogeneous sub categories in terms of carbon stock in order to reduce uncertainty. In accordance with the guidelines, it is considered necessary to stratify the forest except for the cases where Tier 1 method is adopted.

**Tier levels:** Many of the countries use Tier 1, Tier 2 or combination of Tier 1 and Tier 2. In Mozambique, the data at the Tier 2 level exist, but the data cannot cover all of the forest types and carbon pools found in the country. In order to maintain the data at Tier 2 level, it is one of the options to implement a biomass survey. On the other hand, another option is to combine Tier 1 data with Tier 2 data.

**Method of extrapolation:** Many of the countries average the historical forest changes to extrapolate to the future. It is considered that one of the reasons is because the average of the historical reference period is set as the upper limit of the RELs/RLs by the guideline of FCPF Carbon Fund. The guideline of FCPF Carbon Fund also allows the RELs/RLs set above the average of the historical reference period depending on the national circumstances. Countries like the Democratic Republic of Congo and the Republic of Congo in which forest stock is abundant and deforestation rate has been historically low (HFLD countries) are developing the RELs/RLs, projecting the future forest change taking into account the national circumstances.

## Annex 8. Outline of presentations of the seminar on biomass and carbon estimation

(Source: JOFCA interim project report 2015)

Presentation 1: Concept of REDD+ and what has to be done to receive the carbon benefit

(1) Emission reduction from deforestation and forest degradation can bring benefit.

(2) Amount of carbon stock (and emission) has to be measured accurately.

Presentation 2: Basic knowledge on carbon stock analysis

(1) Outline of the analysis: converting inventory data into carbon data

(2) Method of converting the volume (m3) into mass (ton)

1) Tools used for the conversion: allometric equations; BCEF; BEF; WD; R/S Ratio, etc.

2) Use of default values and equations (Tier 1)

3) Development of the allometric equations and coefficients based on the data collected by implementing field surveys

Presentation 3: Procedure and method of the measurement for carbon estimation

(1) Field measurement

1) Method of field survey by sampling

- Theoretical method of field surveys by sampling

- Collecting data of individual trees

2) Measurement of the samples

- Above ground biomass: stem; branches; leaves

- Below ground biomass

3) Organic soil carbon, dead wood, litter

(2) Laboratory work: measurement of the oven-dry weight

(3) Analysis work

1) Analysing data of individual trees: calculating allometric equation to be applied to individual trees

2) Converting data of individual trees into data of stands using the inventory data

Presentation 4: Application of the data collected from the measurement

(1) Setting RELs/RLs

(2) Calculation of emission reduction

Presentation 5: Case studies: results of the measurements in other countries

(1) The Case of Cameroon

(2) The Case of Vietnam

## Annex 9. Table of contents of the guidelines for formulation on biomass and carbon estimation models

(Source: JOFCA interim project report 2015)

**Part I. Development of the biomass and carbon estimation model**

1. Process of developing the biomass and carbon estimation model
2. Elements to be considered to develop the biomass and carbon estimation model
2.1 Carbon pools included in the estimation
2.2 Level of Tier to be aimed at
2.3 Conditional matters to be considered to apply the biomass and carbon estimation
2.4 Consideration of the methodology to be applied for the estimation
2.5 Classification of the forest types in terms of the carbon stock

**Part II. Proposed model of estimating biomass and carbon stock in Mozambique**

1. Overview of the process of estimating biomass and carbon stock
1.1 Process of estimating biomass and carbon stock
1.2 Organization of the survey team and equipment to be used in the survey
2. Field measurement for destructive sampling survey
2.1 Plot survey
2.2 Selection of sample trees
2.3 Destructive sampling survey for field measurement
3. Measuring dry weight
4. Development of allometric equations on the basis of the sample tree data (biomass estimation fromthe DBH)
5. Calculation of the biomass (AGB, BGB) per hectare based on the allometric equations
5.1 Estimation of AGB and BGB by Tier 1 method
5.2 Estimation of AGB and BGB by Tier 2 method
6. Conversion of biomass to carbon
7. Other methodological options for biomass estimation
7.1 Estimation of the AGB by using biomass conversion and expansion factor (BCEF)
7.2 Estimation of the AGB by using biomass expansion factor (BEF) and wood density (WD)
7.3 Estimation of the AGB based on the forest stand data
7.4 Estimation of the BGB by using the root/shoot (R/S) ratio

# Annex 10. Information regarding the Technical Work Group (TWG) and the Forest Resources Information (FRIP)

(Source: JOFCA interim project report 2015)

Table 1. Forest Resource Information Platform TWG Member List

| Name | Department / Responsibility | Remarks |
|---|---|---|
| KunihiroIshii | Japanese Expert (Database) | |
| Yuta Morikawa | Japanese Expert (Forest GIS) | |
| Joaquim Macuacua | DNRI | Project Manager |
| Milda Mausse | DNRI (In Charge of Forest Fire) | TWG Coordinator |
| Renato Timane | DNRI (In Charge of FRA 2015) | TWG Coordinator |
| PachisMugas | DNRI (In Charge of AIFM) | TWG Coordinator |
| Danilo Cunhete | DNRI (In Charge of ZAE) | TWG Coordinator |
| Hilario Akissa | Forest Dept. (In Charge of Forest Statistics) | |
| Jossai Herinque Uamusse | Cadastre Dept. (In Charge of GESTERRA/DUAT) | |
| Eugénio Manhiça | Planning Dept. (In Charge of SISFLOF) | (Until the 5th TWG meeting) |
| Kennedy Ismael | Head in Charge of IT (IT database, system administrator) | |
| VoloideTamele | Technical Expert in Charge of IT (IT database technical expert) | |

Table 2. Dates of Technical Work Group Meetings

| TWG Meeting | Date Held | Items studied at TWG Meeting |
|---|---|---|
| First | June 21, 2013 | Platform Concept<br>Platform Roadmap<br>Platform Configuration, Data Items |
| Second | June 28, 2013 | Related Agencies and Relevant Data |
| Third | October 29, 2013 | Platform Design (Screen Image) |
| Fourth | February 18, 2014 | Platform Demonstration<br>Tentative Platform Operation Plan |
| Fifth | September 4, 2014 | Examination of data items and details based on the draft list of data items |
| Sixth | February 18, 2015 | Land data to be handled by the platform<br>Method to deal with REDD+ demonstration projects<br>Method of registering data on the national REDD+ registry |

## Annex 11. Databases with Potential for Cooperation with Forest Resource Information Platform

(Source: JOFCA interim project report 2015)

| Database Name | Data Items Included | Owned by | Survey Content, etc. |
|---|---|---|---|
| AIFM | Land cover, etc. | DNRI | ArcGIS Desktop was actually used to access the database, and the content of data was confirmed based on the list of reports / metadata. It was confirmed that cooperation with the database could be performed by using ArcGIS. |
| SAMOQUE | MODIS based forest fire estimation data | DNRI | Mr.Massimiliano Lorenzini who was in charge of development explained the overall system. |
| SISFLOF | Information concerning logging concessions, logging permits, timber transport between provinces, maximum logging volume in each province and on logging companies | | Design specifications were obtained, and data items / functions were confirmed.<br>Ms. Marisa Balas at EXI who developed the database was interviewed. Obtained comment that it may be necessary to develop an API (Application Program Interface) to facilitate database cooperation.<br>The result of interview at DNTF revealed that although the system was completed at the beginning of the second year, operation of the system has not started due to budgetary issues and that measures are being taken to start the operation in Manica Province and Sofala Province in June 2015. |
| GESTERRA | Land cover, land usage | Planning Dept. | Mr. Ian M. Rose at MCA who was in charge of development was interviewed. Also, material describing the outline of GESTERRA was obtained from Mr. Kennedy, who is a TWG member, and an explanation of the system was given through demonstration. Moreover, access authority to the system was granted to check the data details, etc. |

## Annex 12. Necessary Forest Resource Information and Related Agencies

(Source: JOFCA interim project report 2015)

| Ministry | Directorate | Department/Division | Information Item Possessed or Thought to be Possessed |
|---|---|---|---|
| MINAG | DNTF | Land Surveying Department | Information of land surveying |
| | | Cadastre Department | Information of cadastre |
| | | Forest Department | Information of forest use |
| | | Wildlife Department | Information about conservation of wildlife |
| | | Natural Resources Inventory Department | Information about natural resource Inventory |
| | | Law Enforcement Department | Information about implementation of lands, forests and wildlife legislations |
| | | Planning Department | Information about planning, monitoring and evaluation |
| | | Administration & Finance Department | Information about management of human and financial resources |
| | | CBNRM Division | Information about local communities |
| | | DPA/SPFFB | (Contribute to create/gather primary data) |
| | CENACARTA | Catography | Maps |
| | | | Satellite data |
| | IIAM | | Soil, agro-ecological zone |
| | DNSA | | Agro statistics: cashew nut/ coconut |
| | DEA | | Cashewnut, coconut |
| MICOA | | | Coordination for REDD+, Disaster (erosion) |
| MIREME | | | Mining concession, prospecting, Geology |
| Ministry of Tourism | | | Natural parks and reserves |
| Ministry of Foreign Affaires | | | Statisics |
| MAE | INAM | | Meteorology |
| | INGC | | Disaster (flood) |
| Ministry of Public Works and Housing | ANE | | Road |
| | | | River |
| | GAZEDA | | Special economic zone |
| NGO’ | | | |
| | IUCN | | Mangrove, biomass |
| | WWF | | Mangrove, biomass |
| | CTV | | Social economic |

## Annex 13. Roadmap for the Forest Resource Information Platform (Adapted from the interim project report 2015)

| Annual | First Year | Second Year | Third Year | Fourth Year | Fifth Year |
|---|---|---|---|---|---|
| Year | 2013 | 2014 | 2015 | 2016 | 2017 |
| Status of the platform and related matters | ▪ **Requirement definitions, basic design**<br>▪ **Completion of the platform prototype**<br>**- Organizing information for each component**<br>**- Import data from existing databases**<br>**- Viewing data in GIS** | ▪ **Improvement of the platform**<br>**- Addition of log-in form, English/Portuguese switch, etc.**<br>▪ **Start Ground-based forest monitoring** | ▪ **Start the operation of forest-cover base maps**<br>▪ **Posting the national REDD+ strategy**<br>▪ **Start the forest inventory survey in the pilot area** | ▪ **Start the monitoring of forest-cover**<br>▪ **Start the trial of biomass and carbon stock estimations**<br>▪ **Implementation of approval process based on the Decree on Rules for Procedures to Approve Projects of REDD+**<br>▪ **Start the operation** | ▪ **Start reporting** |
| Function of Platform | ▪ **Viewing information for each component**<br>▪ **Viewing data in GIS**<br>**- Viewing satellite imagery**<br>**- Viewing existing data** | ▪ Viewing information for each component<br>▪ Viewing data in GIS<br>- Viewing satellite imagery<br>**- Viewing forest-cover map (tentative version)**<br>- Viewing existing data | ▪ Viewing information for each component<br>▪ Viewing data in GIS<br>- Viewing satellite imagery<br>**- Viewing forest-cover/land-use map**<br>- Viewing existing data<br>▪ **Viewing forest inventory data** | ▪ Viewing information for each component<br>▪ Viewing data in GIS<br>- Viewing satellite imagery<br>- Viewing forest-cover/land-use map<br>- Viewing existing data<br>▪ Viewing forest inventory data<br>▪ **Viewing ground-based forest monitoring data**<br>▪ **Viewing biomass and carbon stock** | ▪ Viewing information for each component<br>▪ Viewing data in GIS<br>- Viewing satellite imagery<br>- Viewing forest-cover/land-use map<br>- Viewing existing data<br>▪ Viewing forest inventory data<br>▪ Viewing ground-based forest monitoring data<br>▪ Viewing biomass and carbon stock |
| | ▪ **Data management by ArcGIS Desktop** | ▪ Data management by ArcGIS Desktop<br>▪ **Forest inventory survey results input tool (MS Access)** | ▪ Data management by ArcGIS Desktop<br>▪ **Forest inventory survey results input tool (improved as necessary)** | ▪ Data management by ArcGIS Desktop<br>▪ Forest inventory survey results input tool<br>▪ **Biomass and carbon stock estimation tool**<br>▪ **Reporting function**<br>▪ **Link function with other DB** | ▪ Data management by ArcGIS Desktop<br>▪ Forest inventory survey results input tool<br>▪ **Biomass and carbon stock estimation tool (Revised version)**<br>▪ Reporting function<br>▪ Link function with other DB |
| Available data | ▪ **Satellite imagery (Only portion)**<br>▪ **AIFM Database**<br>**- Forest cover map (2005)**<br>**- Administrative boundary, Cities/Towns/Villages, Basin/River, Road, Weather Observatory, Land unit, Ecological Zone, Soil, Topography**<br>▪ **Mining concession, Agro-ecological zone, Ground-truth data**<br>▪ **Others** | **+**<br>▪ **Forest cover map (tentative version of two pilot provinces)** | **+**<br>▪ **Forest-cover/Land-use map (two pilot provinces)**<br>▪ **Forest inventory survey data** | **+**<br>▪ **Ground-based forest monitoring data**<br>▪ **Forest-cover monitoring data** | **+**<br>▪ **Verification information** |
| | | | **(The following items need to be discussed)**<br>• **Past forest inventory survey data (1980, 1995, and 2007)**<br>• **Forest concession data by DNTF (SISFLOF)**<br>• **Land management data by DNTF (GESTERRA)**<br>• **National - circumstances data, etc.** | | ▪ **Safeguard information system**<br>▪ **Implementation of approval process based on the Decree on Rules for Procedures to Approve Projects of REDD+** |

Note: Letters with colour in white mean the activities or outputs which will be continuously implemented or utilized based on the systems etc. which were accomplished in the previous year