### FIS EWG Monday 24 February 2020

Opening speech by host country

Welcome remarks by JICA representative

Speech by representative of SADC secretariat

Self-introduction

Objectives of the FIS and agenda of EWG

## Summary of Activities on FIS Group - Mr. Nana

# **Outline of the project:**

Title: Project for forest conservation and sustainable management of forest resources

**Project purpose:** To develop the capacity of the SADC Secretariat and Member States for promoting forest conservation and sustainable management of forest resources.

**Beneficiaries:** SADC Member States

The project is in line with the SADC forestry Strategy:

- 1. Climate Change Mitigation and Adaptation
- 2. Protection of Key Water Catchment Forests
- 3. Energy supply and rural poverty reduction
- 4. Enhanced participatory forest management
- 5. Enhanced intra-regional trade in forest products
- 6. Cooperation in trans-boundary forest and fire management
- 7. Forest assessments and information
- 8. Capacity improvement in SADC

# The project outputs included:

- Develop Regional FIS(RFIS)
- Develop Portal site (Website)
- Prepare Regional Guideline (RFIS System Design)
- Publicize the SADC Regional Forest Information (SADC Forestry Outlook)
- Develop PFM Good Practice Database
- Technical transfer through Regional Training

4 EWG meeting: (Nov 2016, Nov 2017, Oct 2018, Feb 2020)

2 Basic Training: June 2017, Nov 2017

2 Advance training: June 2019, Jul 2019

RFIS NFIS training Dec 2019

Conclusion of 1st EWG:

2 Basic training

# 2nd EWG will be convened with the 2<sup>nd</sup> basic training

## Conclusion of 2<sup>nd</sup> EWG

- i. EWG-FIS recognized the importance of developing NFIS in each MS considering diversity of forest type in SADC region
- ii. EWG-FIS recognized difficulty of continuous data feeding to RFIS even from NFIS advanced MSs and recommend system development of NFIS and RFIS separately
- iii. EWG-FIS recognized SADC-RFIS guideline would be utilized as system design document of the RFIS
- iv. EWG-FIS recommends to extend Advance Training term to two (2) weeks for both substantive and alternate member from each MS
- v. The initial scheduled training on advanced systems in Japan and/or Asia has been replaced by training on advanced systems in Africa and/or Asia
- vi. EWG-FIS agrees on the Annual Work Plan of the FY 2018

## Conclusion of 3rd EWG

- i. EWG-FIS recognized the importance of developing NFIS in each MS considering diversity of forest type in SADC region
- ii. EWG-FIS recognized difficulty of continuous data feeding to RFIS even from NFIS advanced MSs and recommend system development of NFIS and RFIS separately
- iii. EWG-FIS recognized SADC-RFIS guideline would be utilized as system design document of the RFIS
- iv. EWG-FIS recommends to extend Advance Training term to two (2) weeks for both substantive and alternate member from each MS
- v. The initial scheduled training on advanced systems in Japan and/or Asia has been replaced by training on advanced systems in Africa and/or Asia
- vi. EWG-FIS agrees on the Annual Work Plan of the FY 2018

### **Capacity Development was a 3 step project:**

- Step 1 Basic training (low level QGIS JAXA F/NF map)
- Step 2: (QGIS adavance) Landsat/Sentinel (GEE)
- Step 3: (custom level) Cloud Technology (SEPAL/GEE)

## Major output of the project:

- Development of project portal
- Development of Regional Forest Information System
- PFM good practice database

Who will operate the RFIS database?

### Question:

Forest classification is different for the different Member States. How will Member States be able to use data from the RFIS

## Answer:

National Level Map is more detailed and accurate.

For Regional Scale for the SADC, the forest classification is generalized for simplicity

### Question:

Since the project coming to an end, what are the prospect of obtaining another collaboration project?

#### Answer:

No in a position to answer. PFM development of project idea notes

Mr. Suzuki: Development of project idea notes for mobilization of additional funds

(GCF, GEF, FAO)

## Overview of the Forestry Sector in Botswana

- Structure of the department of Forestry and Range Resources
- Forestry Sector Contribution
- First plantations established after 1940 (Kanye, Lobatse)
- Mission of the organization
- Departmental mandate
- Forest Policy
- Multilateral Environmental Agreements
- Legislations relevant to Forestry
- History of Forest Inventory
- National Forest Monitoring system
- Between 1945-1955, 150 000 m3 of timber harvested in Chobe region
- Forest definition
- Forest distribution map
- Protected areas in Botswana
- Use of Forest produce
- NGOs relevant to the Forestry Sector

# **SADC** definition of forests

Decision of the 5<sup>th</sup> JCC - The 5<sup>th</sup> JCC directed the Expert Working Group on Forest Information System to develop a SADC definition of Forest and present it to JCC for consideration.

E.g. of indicators for forest denifition

woMinimum Crown Cover: (10-30%) e.g. > 10% FAO; 30% Japan

Minimum height: (2-5m) e.g. 5m FAO; 5 m Japan

Minimum area: (0.05 ha - 1.0 ha) e.g. 0.5 ha FAO; 0.3 ha Japan

Split into three groups:

DRC	ANG	TAN
LES	ВОТ	NAM
SA	EST	COM
SEY	MAU	MOZ
	MAL	MDG

Land spanning more than ....ha with trees higher than ...m and a canopy cover of more than...%

Group 1: Discussion centered on whether or not to adopt the FAO definition

In south Africa even areas with small trees are considered as trees. The consensus was to use tree height of 2m, area of 0.2 ha and canopy cover of 10%.

Group 2: Consensus to use FAO definition. The majority of member states in the group are already using FAO definition. In the case of Mauritius, the issue of dwarf forest was raised. However, it was agreed that the FAO definition will best represent the SADC region.

Importance of consistency was also discussed.

Group 3: Tree height of 3 m, area of 1 ha and canopy cover of 10%. Justification was the use of land Sat imagery.

Tuesday 25 February 2020

**Site Visit** 

### Objectives of past EWG site visits

Site visit at Gaborone Game Reserve, Botswana (2nd EWGFIS, Nov. ,2017) was to understand Definition of Forest Type and to identify difficulty of mapping using Landsat Imagery especially between Typical Forest and Woodland.

Site visit in Lusaka, Zambia (3rd EWG-FIS, Oct. ,2018) was to observe the difference between the well managed protected miombo woodland and the degraded Miombo woodland. Discussion based on how fire is important in forest management especially in Miombo woodland was done.

Site visite in Kasane was to see the type of forest and the methodology of forestry inventory, animals' species

the visit to the forest reserve near Kachikau forest camp allowed us to see the type of forest in Kasane and the foresters in the forest department are demonstrating for the forest inventory with the related materials.

Upcoming site visit Chobe national Park

1st National Park and most ecologically diverse in Botswana

In the Chobe national park was to see animal species like elephant, zebras, giraffe, impala, ..., and in

Chobe River Front Area hippo, elephant, crocodile,

## Wednesday 26 February 2019

Review of the field visit by 25<sup>th</sup> February 2019 by Chairperson.

NFI survey demonstration near Kachikau forest camp.

National Forest Monitoring System in Botswana

Output: (i) A nationwide forest distribution map (ii) A methodology for the national forest inventory is establishes (iii) DFRR is equipped with a forest GIS database

Discussion

What was your impression on Forest Reserve in Botswana?

What did you learn through Field Study?

What can you say about what you saw in the field in relation to the SADC

Question:

Mauritius: Sharing of the Forest inventory manual to other Mender States

Answer (Botswana and JICA)

In theory it should not be a problem.

Question Why was part of Forest reserves degazetted?

Answer:

Pressure from the community who were looking for more grazing ground for the cattle

Communal

State Land

Free hold

Angola: There are many differences between Angola and Botswana. Zambesi teak more similar to species found in Angola. With regards to the field study, the inventory is almost similar to Mauiritius.

#### Comoros

The sharing of information

Impressed by the demonstration survey. Not the same in Comoros

Field reality different from the definition of the FAO

### DRC

Sharing of information

Forest is different in each country, If we consider definition FAO it can match the regional status

#### Eswatini

Less deforestation in the Forests close to the Reserves

Methodology for forest inventory is different. Involvement of local community.

Ok to maintain the FAO definition

## Lesotho

Impressed by the forest reserves.

Impressed with the forest inventory – in the process of conducting the inventory in Lesotho. Inclusion of various stakeholders for the inventory. Area visited included settlement resulting in some forest degradation

FAO definition is suitable – reduce the figures (area, height)

# Mauritius

Forest Reserves is very well maintained – well organized. Some little degradation near the settlement but the actual forest is well maintained. Impressive work by the enforcement officers.

Forest inventory was being carried out in a systematic way which is can be replicated

Even within the reserves there were diverse vegetation (in terms height, canopy). This is accentuated in the different countries. So, the FAO definition is reasonable. However, the indicator like tree height can be lowered

### Mozambique

Forest inventory – Advice the other member states to look at other inventories also before choosing the most appropriate methodology.

Forest definition – FAO with some changes

Namibia

Impressed with the reserves and inventory

FAO definition ok if modified slightly

### Seychelles:

Impressed with the reserves which is different from the island. Not much anthropogenic activities in the protected areas. Minimal deforestation/ encroachment

Definition: Botwana fit the FAO definition. Main issues for the other countries are tree height and area which can be lowered slightly.

## South Africa

Everything is going well in the Reserves and make them wonder if it was strategically chosen.

Issuing of licenses for collection of dead wood in South Africa

Guidelines for managing the grassland

Challenges: shortage of resources (in SA)

Consideration of Area for the FAO definition. Corrent definition exclude biodiversity rich areas in SA.

#### Tanzania

Forest Reserves similar to what they have in some part of Tanzania.

No destruction. People observed the forest boundaries.

Forest inventory – impressed by the safety rules

FAO definition – OK compare to national one – (lower tree height to accommodate other States)

### Malawi -

Impressed with the management and preservation of the reserves. Impressive law enforcement.

Forest definition: Reduce the tree height

## Zambia

Is it a National Park or Forest Reserves?

Valuable timber species but no timber extraction indicating good enforcement.

Forest inventory – slightly different design for the inventory. Impressive equipment

Objective of having a SADC definition of Forests. Issues to be considered: is for management purposes? Reporting purpose? Carbon sequestration.

#### Zimbabwe

Good Law enforcement - Limited timber poaching

Inventory slightly different – FAO methodology – Require support in terms of equipment for uniformity of data collection.

### Botswana

Positive comments

Inventory and management look good but there are many limitations

Seasons impact, the canopy affected by the seasons

Encroachment – Botswana does have encroachment but maybe on a lower scale than in other countries. Charcoal, Grazing of livestock.

Firebreaks on the ground

Limited mining does take place in the reserves but they should rehabilitate the region afterwards

Forest Act – Limited towards protected area; Conservation Act

Three Acts have now been merged and will be applied anywhere there are trees

Is there timber logging in Botswana?

Concession for timber logging has now stopped.

Sensitization and awareness to limit conversion of forest land to other land uses?

Sensitization and awareness campaign with local community

Mr Suzuki:

Prerequisite for SADC definition:

Information for reporting back. It is for an assessment purpose and reporting purpose

- Forest definition shall be applied to entire SADC regionally. Therefore, inconsistency between national forest definition and SADC forest definition may happens and this drives differences of total forest area in individual MS.
- Always remember, this is "Regional approach"!!.
- These differences come from differences of methodology and source of data to be used.

- SADC member status has **wide range of natural condition** such as climate zone, topographical condition. Taking into consideration of this circumstances for discussion
- SADC regional forest area based on this definition shall be **update with sustainable manner**. This principle allows us to examine option of methodology and data source for forest area assessment.
- Correspond to above pre-condition, **Landsat data** is the most appropriate data source in light with amount historical archived data and consistency of image sensor.

Three indicators of forest definition must be developed and report to JCC

- Crown cover
- Tree height
- Minimum area of forest

### **FAO** definition

Output of group discussion (Day 1):

	Group A	Group B	Group C
Crown cover	10 %	10 %	10 %
Tree height	2 m	5 m	3 m
Minimum area	0.2 ha	0.5 ha	1.0 ha

GP-A: DRC, South Africa, Seychelles,

GP-B: Angola, Malawi, Mauritius, Botswana, eSwatini

GP-C: Mozambique, Madagascar, Namibia, Comoros, Tanzania

Not participate; Zimbabwe, Zambia (due to late arrival)

## Discussions:

Need for consistency – Global consideration

South Africa - Proposal to use the UNFCC definition

Area of 0.05 - 1 ha

Tree canopy - 10-30%

Tree height 2-5 m

Seychelles

The indicators proposed were the outcome of the group discussions and does not necessarily means that it reflects the reporting indicators of the members states. Most of the Member States are already reporting to the FAO

1. Crown Cover: 10 % consensus reached

2. Tree Height:

Proposal for a range 2-5 m for the forest definition but 5 m for reporting purpose?

Additional discussion.

What is the reasoning behind the current FAO definition?

Satellite imagery for remote sensing – is there a meaning for tree height. Satellite imagery can provide only for Canopy cover and area. No meaning for the SADC map!!!

Consensus reached for 5 m.

#### 3. Area

Land Sat imagery is 30m x 30m or 0.09 ha per pixel. At least 9 pixel (3x3) or 0.8 ha required to obtained meaningful data. Therefore 1 ha proposed but 0.5 ha compromised reached because small extent of forest areas in some countries.

Agreed to adopt the FAO definition for the forest definition.

# **Review of NFIS/RFIS**

Mr Nana we will share the manuals on the Botswana inventory methodology, and the manual on training.

about the training, if there are questions, we can contact and ask Mr Than and Mai by e-mail

## Firstday 26 February 2020

Presentation of each member country for the use of results of FIS/FFM training-Present status and future plan