

Southern African Development Community  
(SADC)

Japan International Cooperation Agency  
(JICA)

**Project for  
Forest Conservation and Sustainable Management  
of Forest Resources in Southern Africa**

**Project Completion Report**

30 September 2020

Japan Forest Technology Association

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**ANNEX 1: Results of the Project**

(List of Dispatched Experts, List of Counterparts, List of Trainings)

**ANNEX 2: List of Products (Report, Manuals, Guidelines, etc.) Produced by the Project**

**ANNEX 3: PDM**

**Separate Volume: Copy of Products Produced by the Project**

## Abbreviation

AfDB	African Development Bank
AFIS	Advanced Fire Information System
AFNRD	Agriculture Food Natural Resources Directorate
AIMS	Agriculture Information Management System
ASEAN	Association of South East Asian Nations
ASMC	ASEAN Specialized Meteorological Centre
AU	African Union
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COSMA-DFR	The Project for Conservation and Sustainable Management of Dzalanyama Forest Reserve (Malawi)
DAC	Development Assistance Committee - OECD
DRC	Democratic Republic of Congo
EWG	Expert Working Group
EU	European Union
FANR	Food, Agriculture and Natural Resources
FAO	Food and Agriculture Organization of the United Nations
FDM	Forest Distribution Map
FIS	Forest Information System
FFM	Forest Fire Management
GCF	Green Climate Fund
GEE	Google Earth Engine
GEF	Global Environment Facility
GFW	Global Forest Watch
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GOJ	Government of Japan
IAS	Invasive Alien Species
ICPs	International Cooperation Partners
ICS	Incident Command System
ICT	Information and Communication Technology
JAFTA	Japan Forest Technology Association
JCC	Joint Coordination Committee

JICA	Japan International Cooperation Agency
KAZA	Kavango–Zambezi
MAFF	Ministry of Agriculture, Forestry and Fisheries
MESA	Monitoring of the Environment for Security in Africa
M/M	Minutes of Meeting
MODIS	Moderate Resolution Imaging Spectroradiometer
MOU	Memorandum of Understanding
MS	Member State
NFIS	National Forest Information System
NFRDB	National Forest Resources Database
NGO	Non-Governmental Organization
NGP	New Generation Plantations
NMSs	National Meteorological Services
NTFP	Non-Timber Forest Products
OG	Overall Goal
OSS	Open Source Software
OVOP	One Village One Product Movement
PDM	Project Design Matrix
PFM	Participatory Forest Management
PIN	Project Idea Note
PO	Plan of Operation
PP	Project Purpose
QGIS	Quantum Geographic Information System
R/D	Record of Discussions
RECOFTC	The Center for People and Forests in Pacific Region
REDD+	Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
RFIS	Regional Forest Information System
RSMC	Regional Specialized Meteorological Center
SADC	Southern African Development Community
SPO	Senior Programme Officer
TFCA	Trans Frontier Conservation Area
TRAFFIC	The Wildlife Trade Monitoring Network - WWF

UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
VIIRS	Visible Infrared Imaging Radiometer Suite
WAMIS	World Agro-Meteorological Information Service
WWF	World Wide Fund for Nature

## **I. Basic Information of the Project**

### **1. Country**

SADC 16 Member States:

Angola, Botswana, Comoros, Democratic Republic of Congo (DRC), Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, Zimbabwe

### **2. Title of the Project**

Project for Forest Conservation and Sustainable Management of Forest Resources in Southern Africa

(Commonly referred to as "SADC/JICA Forestry Project")

### **3. Duration of the Project (Planned and Actual)**

Planned: 2014/12 - 2019/11 (60 Months)

Actual: 2015/7 – 2020/9 (63 Months)

### **4. Background (from Record of Discussions(R/D))**

Forest area plays important roles for human beings and the environment: the provision of daily commodities (timber, firewood, non-timber forest products (NTFP), etc.), soil conservation, habitats for flora and fauna, and absorption of carbon dioxide. On the other hand, poverty is a serious problem in Southern Africa where 40% of the population lives on less than one dollar per day with high population increase, over 2.4%/year (SADC, 2010; FAO, 2010). Approximately 62% of natural forests in Southern Africa are dry woodlands called Miombo. In addition to the high value of commercial Miombo wood products, Miombo has also great value for local people, as dry season fodder, fuel wood, and NTFP for subsistence and industry uses.

However, forests in the region are not well managed due to inadequate levels of governance and state budget limitations. In particular, the situation of forest fire in Africa is the worst in the world; 8% of forest area is annually damaged by fire in Africa (SADC, 2010). Since it is generally agreed that major causes of forest fires are human-induced, integrated fire management with local participation that includes the introduction of a fire information system and forest management should be promoted. This would directly and appropriately contribute to the improvement of the livelihood of local people and addressing both mitigation and

adaptation to climate change.

The SADC treaty stipulates the promotion of common political values, systems, and other shared values through regional integration. The SADC Protocol on Forestry is the overarching policy framework for forestry collaboration amongst Member States and it lays out several guiding principles on how Member States should cooperate to protect, manage and utilize their forests to meet both regional and national objectives. The SADC forestry strategy 2010-2020 is facilitating the implementation of the SADC Forestry Protocol. It highlights use of forest resources for food security, enhancing participatory forest management, cooperation on fire management, and needs of forest data for better management as key priorities for the region among others.

In that context, SADC Regional Stakeholder Workshop co-hosted by SADC, JICA and GIZ was held in February 2013 in Johannesburg, South Africa, and was attended by 14 SADC Member States (Angola, Democratic Republic of Congo, Eswatini (former Swaziland), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, United Republic Tanzania, Zambia, Zimbabwe). SADC Member States welcomed the ideas of regional cooperation and capacity building towards implementation of the SADC Forestry Strategy. The workshop had a shared a common view that it would be appropriate to focus on: i) forest information system; ii) integrated fire management; and iii) participatory forest management, iv) capacity improvement in SADC Secretariat as potential priority areas for regional cooperation on forestry to be supported by JICA. Consequently, SADC requested the Government of Japan (hereinafter referred to as “GOJ”) to cooperate on a new technical cooperation Project in Aug 2013, titled Project for Forest Conservation and Sustainable Management of Forest Resources in Southern Africa. Following the GOJ’s acceptance of the request, JICA dispatched a mission to discuss the details of the Project with SADC Secretariat in May 2014.

SADC comprises 16 member states (hereinafter jointly referred to as “SADC Member States”); Angola, Botswana, Comoros, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe as of March 2020.



**5. Overall Goal and Project Purpose (from Record of Discussions(R/D))**

To contribute for the implementation of the Regional Forestry Strategy 2010-2020 and programmes in a more practical and more effective manner and to the Member States to develop/improve their National Policies/ Strategies/ Programmes on Forest Information System, Forest Fire Management and Participatory Forest Management.

The purpose of the project is to develop the capacity of SADC Secretariat and Member States for promoting forest conservation and sustainable management of forest resources.

**6. Implementing Agency**

SADC Secretariat / Food Agriculture and Natural Resources

## II. Results of the Project

### 1. Results of the Project

1-1 Input by the Japanese side (Planned and Actual)

(1) Total Project Cost:

Planned: 640 million yen (equivalent to 5.82 million USD)

Actual: 735 million yen (equivalent to 6.68 million USD)

(2) Dispatch of Experts:

\* Long term experts: 4

Chief Advisor 2, Forest Management 1, Project Coordination 1

\* Short term experts: 15

Project Manager/FIS 1, Deputy Project Manager/External Funding 1, FIS 2, FIS Assistant 3, FFM/External Funding 1, FFM 1, PFM 1, PFM/FIS Assistant 1, External Funding/PFM 1, Project Coordination 1, Project Coordination/FIS 1, Project Coordination/PFM 1

(3) Number of Trainees: 310

Number of Trainees (Total)	310
Output 1 (FIS)	101
Output 2 (FFM)	84
Output 3 (PFM)	125

(4) Cost of Handover Equipment (16 Laptop PCs): 1,227,328 yen (equivalent to 11,154 USD)

(5) Cost of Overseas Office: 115 million yen (equivalent to 1.05 million USD)

1-2 Input by the SADC Secretariat side (Planned and Actual)

(1) Counterpart: 3 (FANR Director 1, FANR SPO 1, FANR Administrator 1)

(2) Project Office: Kgale Mews Office / Sebele Office / CBD iTower Office  
- Suitable office space with furniture

(3) Other Input: Running expenses (utility cost, security cost, cleaning cost, wi-fi

service cost of the above Project Offices) necessary for the implementation of the Project.

### 1-3 Activities (Planned and Actual)

Output1: The capacity of SADC Member States to enhance Forest Information System is improved.

#### 1.1. Harmonize National Forest Information Systems of the Member States.

1.1.1. Study the available Forest Information Systems, kinds of information and needs in the Member States (MSs) as the baseline data.

> Following issues were identified by the baseline study.

- \* Most MSs are still suffering from poor data collection on Forest Information.
- \* Most MSs are still suffering from limited use of data for Decision Making.
- \* Some MSs do not have NFIS.

> Though it was expected that all SADC Member States should have the forest information system and could maintain it properly and regularly update forest information data, only a few Member States had achieved such practice.

> Following idea was proposed and approved at the 2<sup>nd</sup> JCC based on the fact of the baseline study.

- \* The Project should rather focus on raising Technical Level of the NFIS in majority of the MSs by providing equipment and increasing training opportunities than implementing pilot operation in specific Countries.

1.1.2. Conduct workshops to share, learn and harmonize National Forest Information Systems (NFIS), including ICT and space technologies, and draw Action Plans to develop/modify NFIS.

> This item was deleted at the 2<sup>nd</sup> JCC based on results of the baseline study. (See 1.1.1.)

1.1.3. Select the Action Plan of 1 of MSs as the pilot operation for developing/modifying the NFIS under the Project.

> This item was deleted at the 2<sup>nd</sup> JCC based on results of the baseline study. (See 1.1.1.)

1.1.4. Training on advanced systems in Africa and/or Asia.

- > Training on advanced systems in Africa was implemented in conjunction with the 3<sup>rd</sup> FIS EWG meeting which was held during 9<sup>th</sup> and 11<sup>th</sup> October 2018 in Lusaka, Zambia.
- > EWG-FIS members appreciated the lessons learnt from the NFIS in Zambia (EWG host country) which is based on Open Source Tools and other Web based solutions.

1.1.5. Implement the selected Action Plan in member States

- > This item was deleted at the 2<sup>nd</sup> JCC based on results of the baseline study. (See 1.1.1.)

1.1.6. Conduct a workshop to share the developed model NFIS and harmonize further the NFISs and reflect the newly collected information to national policies and programmes of MS.

- > This item was deleted at the 3<sup>rd</sup> JCC based on results of the baseline study. (See 1.1.1.)
- > This activity is regarded as substantially included in item 1.2.

1.1.7. Connect with and feed information of the NFISs to the Regional System.

- > This item was deleted at the 3<sup>rd</sup> JCC based on results of the baseline study. (See 1.1.1.)
- > This activity is regarded as substantially included in item 1.2.

1.2. Develop the SADC Regional Forest Information System.

1.2.1. Study the existing regional forest information system as the baseline data.

- > SADC Secretariat is developing Integrated Agriculture Information Management System (commonly referred to as "AIMS") within the SADC region under FAO funding. This system could be the baseline system for the regional forest information system. It was concluded that the SADC RFIS which would be developed by the project should be integrated into AIMS. The AIMS is still under development as of now under FAO project. The SADC RFIS would be linked with this system as soon as information on the system interface is available.

1.2.2. Convene EWG meetings to define the kind of information and their criteria, and aggregation mechanism for the SADC Regional Forest Information System (RFIS).

> EWG-FIS has been convened 4 times in total to discuss about “Defining the kind of information and their criteria”, “aggregation mechanism for the SADC RFIS”.

> According to the SADC Forestry Strategy 2010 – 2020, it is recognized that lack of recognition of the true economic value of forests should urgently be addressed and tackled.

> It was concluded that routine and periodic monitoring for “Forest Area Change” and “Forest Volume Change” are indispensable information for the SADC region in line with the challenges specified in the Forestry Strategy.

> In order to grasp “Forest Area Change” and “Forest Volume Change” in the region, preparation of “Forest Distribution Map (FDM)” was recognized as important information as baseline data for monitoring. And the criteria that is definition of forest / category of forest type in the region were discussed and prepared as “FDM2015” by classifying satellite imagery (Landsat data for continental MSs, Sentinel data for Island MSs).

> When it comes to “aggregation mechanism for the SADC RFIS”, two (2) options were discussed in the EWG-FIS which was 1) Feed and Aggregate forest change data from NFIS of each country to the RFIS , 2) Compute and aggregate forest change data in an independent RFIS respectively.

> Option 2) was consequently adopted to develop the RFIS taking NFIS situation of each country / sustainable operation into consideration.

> As a result, system design for “Aggregation mechanism for the SADC RFIS” was organized and agreed as the RFIS system design (SADC-RFIS guideline) through EWG-FIS discussion.

1.2.3. Develop/Modify the SADC-RFIS.

> Considering sustainability of system operation including system maintenance, it is important to make use of Open Source Software (OSS) and Open Data.

> SADC RFIS has newly been developed using OSS system development environment that is Google Earth Engine (GEE) API based on the RFIS system design in order to ensure sustainability of the system operation. (See the RFIS system design document in detail.)

1.2.4. Collect and record available national information and consolidate into the SADC-Regional Forest Information.

> Map scale difference between National level and Regional level was discussed in series of EWG-FIS meetings and it was concluded it is difficult to simply consolidate National level maps and forest volumes into Regional one since the accuracy of Maps and forest volumes are totally different from each other.

> Thus, critical information for the “Forest Area Change” and the “Forest Volume Change” were to be computed independently in the RFIS considering sustainability of regular update of basic information. (See the RFIS system design document in detail.)

1.2.5. Analyze collected information and reflect on revision of the SADC-Regional Forestry Strategy and other programmes.

> As described in the above item “1.2.4.”, scale factor of the information between National level and Regional level was specifically discussed and taken into consideration in the RFIS development. This could contribute to solve the challenge for regular update of basic regional forest Information. (See the RFIS system design document in detail.)

1.3. Publicize the SADC Regional Forest Information.

1.3.1. Make some parts of the Regional Forest Information public on the SADC website.

> The RFIS has already been developed and it has been linked to the Project Portal Website. But as describe in the item “1.2.1.”, the AIMS to which the RFIS should be linked is still under development under FAO project. As soon as information on the system interface of the AIMS is available, the RFIS could be publicized gradually.

1.3.2. Issue annually the SADC Regional Forest Outlook with parts of the Regional Forest Information.

> Function for producing annual forest change information has already been developed and prepared for publicizing SADC Regional Forest Outlook. But EWG-FIS recommended that SADC Regional Forest Outlook should publicize

every 5 years not annual interval taking output accuracy into consideration. Equally SADC Ministers of Environment, Natural Resources and Tourism at their meeting of October 2019 urged Member States to produce National State of Forest Reports every five years; and directed SADC Secretariat to produce the SADC Regional Report on the State of Forests every five years based on Member States Reports.

#### 1.3.3. Publicize the Portal Site on the SADC Website (URL: [www.amis-fis.jp](http://www.amis-fis.jp))

> Project Portal Website has already been developed. But the domain for the website is still “JP” domain which was prepared by the project. It should be transferred to “SADC.INT” domain as soon as information on the system interface of the AIMS is available.

### 1.4. Develop the capabilities on SADC Forest Information System.

#### 1.4.1 Conduct basic and advanced training on GIS/WAMIS (World Agro-Meteorological Information Service) data

> Basic training was conducted twice in June 2017 and November 2017 in Gaborone, Botswana.

> Advanced training was also conducted in June 2019 and July 2019 in Gaborone, Botswana.

> These series of trainings were aimed at introducing open source software and open forest information data which are both available free of charge so that the participants can easily establish and update forest information system of their own country without financial constraints.

#### 1.4.2. Conduct follow-up training for countries that do not have forest information system in place

> Follow-up training for countries that do not have forest information system in place was replaced with the training on NFIS development for all Member States considering the fact that the majority of them did not have national forest information systems. See next item “1.4.3.”.

#### 1.4.3. Conduct training for RFIS

> Training for both RFIS and NFIS was conducted in December 2019 in Gaborone, Botswana.

> For the NFIS training, the project prepared the template NFIS system which could be customized by the countries depending on the national circumstances of each country and training was focused on how to customize template system cost effectively.

Output 2: The capacity of SADC Member States to enhance Integrated Forest Fire Management is improved.

2.1. Integrate available information and technologies related to the activities and capabilities of national and local governments for prediction and avoidance of spreading, and extinguishing wildfires.

2.1.1. Study available information and technologies, and feasible operations to further integrate them to national and local activities as the baseline data.

> As a result of baseline study, it was found that many of SADC MSs were using Advanced Fire Information System (AFIS) developed under the SADC-MESA (Monitoring of the Environment for Security in Africa) program which was coordinated by the African Union (AU) and funded by the European Union (EU).

> The AFIS is a satellite-based fire information tool that provides near real time fire information to users across the globe.

> The AFIS provides users with fire prediction, detection, monitoring, alerting, planning and reporting capabilities through use of the Earth observation satellites (MODIS / VIIRS sensor), weather forecast models and Information and Communication Technologies.

> But the AFIS services were terminated by the end of the year 2018.

> Global Forest Watch (GFW), maintained by Google, is a good monitoring tool and can be used as an alternative platform to monitor forest fire.

> This website (URL: [www.globalforestwatch.org](http://www.globalforestwatch.org)) also provides users with fire prediction, detection, monitoring, alerting, planning and reporting capabilities through use of the Earth observation satellites (MODIS / VIIRS sensor).

> Based on result of baseline study, prescribed burning training for local government / community was provided by Kishugu Training (Pty) Ltd in Nelspruit, South Africa. This training was originally designed for “Working on Fire” scheme which was conducted by the Government of South Africa. It was later found to be beneficial and that it could be used for enhancing Integrated



Forest Fire Management for SADC countries.

2.1.2. Conduct workshops to share and learn about the available information and technologies and draw Action Plans to integrate them to national and/or local government activities.

> This activity was deleted and replaced by alternative capacity development plan “2.1.7.” At the 3<sup>rd</sup> JCC meeting it was recommended that the FFM group should also have ICT trainings such as AFIS related training together with FIS group.

2.1.3. Select 1 Action Plan as the pilot operation under the Project.

> This activity was deleted and replaced to alternative capacity development plan “2.1.8.” at the 3<sup>rd</sup> JCC meeting. The rationale was that the pilot operation could only be beneficial to selected countries but capacity development will benefit all Member States and promote the principle of equity.

2.1.4. Implement the selected Action Plan in Member States

> This activity was deleted and replaced to alternative capacity development plan “2.1.8.” at the 3<sup>rd</sup> JCC meeting. The rationale was that the pilot operation could only be beneficial for selected countries but capacity development will benefit all Member States and promote the principle of equity.

2.1.5. Study feasibility of regional fire management coordination center.

> The original plan was to conduct a study tour to Indonesia. But this item “2.1.5.” was replaced to the item “2.2.3.” after receiving advice at 3<sup>rd</sup> JCC that the Project should consider visiting places in Africa or specifically in the SADC region.

2.1.6. Conduct workshops to share and learn from the integration results of the pilot operation.

> This activity was deleted and replaced to alternative capacity development plan “2.1.8.” at the 3<sup>rd</sup> JCC meeting to enable all Member States to benefit based on the principle of equity.

2.1.7. Conduct basic and advanced training

- > Basic training on FFM was conducted parallel with the Basic training on FIS in November 2017 in Gaborone, Botswana.
- > The basic training was offered jointly to participants of FFM group and of FIS group. Participants learned on how to monitor Forest Area Change sustainably using 'Open Data' and 'Open Source Software'.
- > Advanced training on FFM was conducted in conjunction with the 3<sup>rd</sup> EWG-FFM meeting in between October and November 2018 in Nelspruit, South Africa.
- > Participants of FFM group developed skills for forest fire management on Remote Sensing and GIS at the Advanced Training.
- > Tablet PCs and Application for Field Data Collection were provided in the training.
- > Participants learned on how to collect field data such as Ground Truthing Information, status of combustible material distribution through field exercise in the training.

#### 2.1.8. Conduct General Training on forest fire management

- > Incident Command System (ICS) training was conducted at comprehensive training on FFM group in November 2019 in Maseru, Lesotho.
- > Training on the Field Data Collection on the mountainous conditions using Tablet PC was also conducted as the follow-up training of the Advanced training which is mentioned in the item "2.1.7." in order to address the needs from EWG-FFM members. EWG Members were keen to acquire skills in field data collection in both low laying and mountainous terrains.

## 2.2. Integrate the activities and capabilities of rural populations to Forest Fire Management.

### 2.2.1. Study successful Community Based Forest Fire Management, trans-boundary agreements, and other practices integrating rural populations in forest fire management and the baseline data.

- > As a result of baseline study by the JICA long term experts, it was found that KAZA-TFCA (Trans Frontier Conservation Area) could be one of the suitable area to implement activities for trans-boundary forest fire management, and other practices integrating rural populations in forest fire management.
- > But the 2<sup>nd</sup> JCC meeting advised that the Project should consider specific

geographical conditions and terrain in the region as well other than just KAZA-TFCA.

> The JCC further recognized that since this is a regional project, the common regional issues should be prioritized over specific conditions of one country.

2.2.2. Convene EWG to share and learn about the good practices of controlling wildfire by integrating rural populations.

> The EWG-FFM meetings were convened four (4) times as below.

\* The 1<sup>st</sup> EWG-FFM: November 2016, in Johannesburg, South Africa

\* The 2<sup>nd</sup> EWG-FFM: November 2017, in Gaborone, Botswana

(Joint Basic training with FIS group was conducted in conjunction with the 2<sup>nd</sup> EWG-FFM meeting.)

\* The 3<sup>rd</sup> EWG-FFM: November 2018, in Nelspruit, South Africa

(Advanced training was conducted in conjunction with the 3<sup>rd</sup> EWG-FFM meeting.)

\* The 4<sup>th</sup> EWG-FFM: February 2020, in Kasane, Botswana

(Study tour on trans-boundary fire management was conducted in conjunction with the 4<sup>th</sup> EWG-FFM meeting.)

2.2.3. Study good practices and approaches in Africa and/or Asia

> Study tour on trans-boundary fire management in specific terrain condition was conducted as good practices and approaches in Africa in conjunction with the comprehensive training in Ts'ehlanyane National Park, Lesotho.

> Study tour on trans-boundary fire management in Zambezi region (cross-border area between Namibia and Botswana) was conducted as good practices and approaches in Africa in conjunction with the 4<sup>th</sup> EWG-FFM meeting.

> Participants of FFM group learned on trans-boundary fire management practice on the ground through the above field visits.

2.2.4. Select 1 Action Plan as the Pilot Operation.

> This activity was deleted and replaced to alternative capacity development plan "2.2.7." at the 2<sup>nd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries capacity development will benefit all Member States.

2.2.4. Select max 8 Action Plans as the Pilot Operation

> This activity was deleted and replaced to alternative capacity development plan “2.2.7.” at the 2<sup>nd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries capacity development will benefit all Member States.

2.2.5. Implement the Pilot Operation in the selected MSs.

> This activity was deleted and replaced to alternative capacity development plan “2.2.7.” at the 2<sup>nd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries capacity development will benefit all Member States.

2.2.6. Conduct workshops to share and learn from results of the Pilot Operation.

> This activity was deleted and replaced to alternative capacity development plan “2.2.7.” at the 2<sup>nd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries capacity development will benefit all Member States.

2.2.6. Conduct EWGs to share and learn from results of the Pilot Operation.

> This activity was deleted and replaced to alternative capacity development plan “2.2.7.” at the 2<sup>nd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries capacity development will benefit all Member States.

2.2.7. Conduct training on Awareness and Transboundary Fire Management Course

> Training on Awareness and Transboundary Fire Management (Trial MoU) was conducted in July 2019 in Nelspruit, South Africa.

> Whereas training on Awareness was conducted for both continental countries and island countries, training for Transboundary Fire Management (Trial MoU) was conducted only for the continental countries since Island countries do not have transboundary fire management issue.

> First Aid Training was conducted for the Island countries as alternative to

training in Transboundary Fire Management.

### 2.3. Develop/Modify Regional and Cross-boundary Guidelines for Integrated Forest Fire Management.

2.3.1 Convene EWGs meetings to modify the Regional and Cross-boundary Forest Fire Management guidelines integrating information, technologies and rural populations.

> The EWG-FFM meetings were convened four (4) times to organize / modify the FFM guideline as below.

\* The 1<sup>st</sup> EWG-FFM meeting: November 2016, in Johannesburg, South Africa

\* The 2<sup>nd</sup> EWG-FFM meeting: November 2017, in Gaborone, Botswana

\* The 3<sup>rd</sup> EWG-FFM meeting: November 2018, in Nelspruit, South Africa

\* The 4<sup>th</sup> EWG-FFM meeting: February 2020, in Kasane, Botswana

(The 4<sup>th</sup> EWG-FFM meeting focused on modification to summarize the draft final FFM guideline to suitable size document which was directed by the 5<sup>th</sup> JCC meeting.)

2.3.2. Compile and publish the guidelines of MSs on the website (SADC-RFIS) and as a booklet.

> This activity was not scheduled at the initial plan. But it was conducted to facilitate dissemination and use of the FFM guideline beyond the life of the Project.

> Project Portal Website has already been developed and the FFM guideline has been linked to the website. But the domain for the website is still "JP" domain which was prepared by the project. It should be transferred to "SADC.INT" domain as soon as information on the system interface of the AIMS is available as mentioned in the item "1.3.3."

Output 3: The capacity of the SADC Member States to enhance Participatory Forest Management is improved.

### 3.1. Share and learn from good practices and lessons on Participatory Forest Management.

3.1.1 Study and compile good practices and needs on Participatory Forest Management (PFM) as the baseline data.

> JICA long term experts visited 15 Member States (except Comoros) and studied policy and activities on PFM in each country. Following facts were learnt as baseline study.

\* Some countries have positively promoted PFM activities in order to manage forest involving local government, funding donors, NGOs, and local communities based on the state policy and regulatory on forestry.

\* Some countries have implemented some PFM activities in order to manage forest despite the fact that the policy and regulatory framework is inadequate.

\* A few countries have not yet implemented PFM activities in order to manage forest.

> As a result of the baseline study, the project found the importance of sharing lessons learnt by providing opportunities to see PFM good practice activities within / without SADC region since there are gaps in PFM activities among SADC Member States.

> Based on the result of the baseline study, a proposal was made at the 2<sup>nd</sup> EWG-PFM to organize PFM guideline in line with three (3) categories namely: 1) Community Forests, 2) Protected Forests, 3) Industrial Forests.

3.1.2. Organize workshops to share and learn from good practices and lessons, approaches and methodologies.

> Five (5) workshops to share and learn from good practices and lessons were organized as below.

\* The 1<sup>st</sup> workshop (study tour): November 2016, in Moshi, Tanzania

\* The 2<sup>nd</sup> workshop (study tour): February 2017, in Bangkok, Thailand

\* The 3<sup>rd</sup> workshop (study tour): May 2017, in Johannesburg, South Africa

\* The 4<sup>th</sup> workshop (study tour): October 2017, in Arusha, Tanzania

\* The 5<sup>th</sup> workshop (study tour): September 2018, in Lilongwe, Malawi

\* The 6<sup>th</sup> workshop (study tour): November 2019, in Gaborone, Botswana

3.1.3. Study good practices and approaches in Africa and Asia

> One (1) workshop (study tour) was organized to study good practices and

approaches in Asia. The 2<sup>nd</sup> workshop mentioned in item “3.1.2.” included study tour to the PFM good practice site surrounding Bangkok, Thailand.

> Participants of the 2<sup>nd</sup> workshop (study tour) studied “One Village One Product Movement (OVOP)” which is campaign to boost the local communities by promoting the special products of local area.

### 3.2. Activate the Expert Working Group on Participatory Forest Management

#### 3.2.1. Design and form EWG on PFM.

> Responsibilities and Functions of the EWG on PFM were designed by the Project as below.

\* The EWG-PFM shall, with close cooperation with SADC Secretariat and JICA Experts, analyze present status; propose ideas for improvements; and examine draft guidelines, as well as propose topics for development of future guidelines, concerning southern African regional issues in the area of participatory forest management; and report the findings and outputs to the JCC.

\* The EWG-PFM shall consist of Members from each Member State Member: A person responsible for the technical aspects of participatory forest management belonging to the forestry authority of a Member State who is nominated by the head of the forestry authority. The Member shall be the focal point and principal communication officer between the Member State and the Project in terms of the technical issues.

> It was presented to the 2<sup>nd</sup> JCC meeting in Dar es Salaam, Tanzania and approved by the JCC.

#### 3.2.2. Perform functions of EWG.

> The EWG-PFM met once annually as mentioned in the item “3.1.2.” to learn and discuss the technical issues especially on organizing PFM guideline and contributed to drafting it.

> The EWG-PFM chairperson who was selected as representative at each EWG-PFM meeting reported the results of EWG-PFM work to each JCC meeting.

### 3.3. Develop the Regional Guideline for Participatory Forest Management

3.3.1. Draft a regional Guideline on PFM including (1) Community Forests, (2) Protected Forests including national parks and forest reserves, and (3) Industrial Forestry (Plantations / Concessions).

> Based on the result of the baseline study mentioned in the item “3.1.1.”, the Project initially proposed idea at the 2<sup>nd</sup> EWG-PFM to organize PFM guideline in line with three (3) category patterns which are 1) Community Forests, 2) Protect Forests, 3) Industrial Forests. But after the discussion at the 2<sup>nd</sup> EWG-PFM meeting, it was concluded that PFM guideline should at least have the nine (9) principles as important factors namely: 1) Availability of quality resources, 2) Effective policy and regulatory support, 3) Clear rights and tenure among resources users, 4) Effective governance, 5) Effective participation of stakeholders, 6) Capacity of community and other key stakeholders, 7) Meeting local people’s needs, 8) Adaptive management and learning, 9) Accommodating multiple stakeholders’ interests.

> PFM guideline was drafted with considering the above principles through series of discussion in the EWG-PFM meetings that were convened six times during the life of the project.

3.3.2. Select 1 Action Plan as the Pilot Operation.

> This activity was deleted and replaced by alternative activities at the 3<sup>rd</sup> JCC meeting based on the principle of equity. Whereas the pilot operation could only be beneficial to selected countries alternative activities will benefit all Member States. Alternative activities are elaborated under items “3.3.5.”, “3.3.6.”, “3.3.7.”, “3.3.8.”, “3.3.9.”, “3.3.10.”.

3.3.3. Implement the Pilot Operation in Member States according to the draft Guideline.

> This activity was deleted and replaced to alternative activities at the 3<sup>rd</sup> JCC meeting due to the same reasons as those mentioned under item “3.3.2.”.

3.3.4. Convene EWG meeting to develop final draft of the Regional Guideline for PFM

> The 5<sup>th</sup> EWG-PFM meeting was held in Lilongwe, Malawi to develop the final draft of the Regional Guideline for PFM.

> The JCC directed the EWG-PFM to summarize the draft regional guideline on



PFM to a suitable size document, and to separate the good practices from the draft regional guideline on PFM as these are two distinct deliverables.

> The 6<sup>th</sup> EWG-PFM meeting was held at Gaborone, Botswana to finalize the final draft of the Regional Guideline for PFM based on the decision by the JCC.

#### 3.3.5. Conduct Skill-up training

> This activity was not scheduled at the initial plan. but it was implemented as alternative to activity “3.3.2.” and “3.3.3.”.

> 1) Marketing Analysis Training and 2) Project / Organizational Management Training were conducted by the trainers who were invited from the Forest Training Institute (FTI), Tanzania at the 6<sup>th</sup> EWG-PFM which was held in November 2019 in Gaborone, Botswana.

#### 3.3.6. Develop Data Base

> This activity was not scheduled at the initial plan but it was implemented as alternative to activity “3.3.2.” and “3.3.3.”.

> PFM Good Practice Database has been developed by the Project through a series of discussions at the EWG-PFM meetings.

> Menu interface and basic functions of the database were discussed and designed at the 5<sup>th</sup> EWG-PFM meeting in Lilongwe, Malawi.

#### 3.3.7. Conduct Data Base Training

> This activity was not scheduled at the initial plan. But it was conducted as the counter activity of the item “3.3.2.” and “3.3.3.”.

> PFM Good Practice Database Training was conducted in December 2019 at the 6<sup>th</sup> EWG-PFM meeting in Gaborone, Botswana.

> Contents for the Database were initially collected by the EWG-PFM members and only a few cases (PFM Good Practice Data) were stored at the initial stage.

> The project prepared additional 80 cases in order to enhance the database.

#### 3.3.8. Develop Action Plan

> This activity was not scheduled at the initial plan but it was implemented as alternative to activity “3.3.2.” and “3.3.3.”.

> It was introduced to provide an opportunity to each Member State to exercise formulating possible country project that to be implemented after the end of the SADC-JICA Forestry Project.

- > in September 2018 at the 5<sup>th</sup> EWG-PFM Meeting in Lilongwe, Malawi introduction and guidance provided to facilitate the preparation of a Project Idea Note (PIN) for each MS to consider mobilizing external funding such as from the Global Environment Facility (GEF) and the Green Climate Fund (GCF ).
- > Follow-up activities for drafting and finalizing PIN in each Member State were also conducted after the 5<sup>th</sup> EWG-PFM by the JICA short term experts and Local Consultants.

#### 3.3.9. Guidance for External Fund

- > This activity was not scheduled at the initial plan but it was implemented as alternative activity “3.3.2.” and “3.3.3.”.
- > Introduction and guidance for mobilizing external funding were conducted at the 4<sup>th</sup> EWG-PFM meeting in October 2017 in Arusha, Tanzania.
- > Follow-up guidance for mobilizing external funding was conducted at the 5<sup>th</sup> EWG-PFM in September 2018 in Lilongwe, Malawi.

#### 3.3.10. Compile and publish the guidelines of MSs on the website (SADC-RFIS) and as a booklet.

- > This activity was not scheduled at the initial plan but it was implemented as alternative to activity “3.3.2.” and “3.3.3.” The justification was that the PFM guideline would be widely used and referred to even after the end of the Project.
- > Project Portal Website has already been developed and the PFM guideline has been linked to the website. But the domain for the website is still “JP” domain which was prepared by the project. It should be transferred to “SADC.INT” domain as soon as information on the system interface of the AIMS is available as mentioned in the item “1.3.3.”.

Output 4: The capacity of the SADC Secretariat to coordinate the activities of above 3 Outputs is improved.

4.1. Strengthen coordination capacity of FANR Directorate of SADC Secretariat on above 3 Output fields.

4.1.1. Collect the baseline data, and Study the cases of Japan and/or ASEAN

Following information was collected and studied as the baseline information per each output.

> For output 1, information on National Forest Resources Database (NFRDB) operated and maintained by the Forestry Agency, Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan was collected and studied as baseline information for the development of SADC RFIS.

\* The NFRDB was developed aiming at accounting and reporting the absorption rate by forests in response to the Kyoto Protocol and providing basic information about the current state of forest resources and forest census, etc. The database is storing government information such as forest registers and forest planning maps and is designed in a way that it would be used for verification by crosschecking the actual survey of the forest resources monitoring survey by the Forestry Agency on forest volumes and growths information and crosschecking orthophotos and the high resolution satellite images on location information. It is worthy of special mention that the information on forest registers are originally managed and maintained by 47 prefectures in Japan and formats are totally different in each prefecture. The information on forest register in the NFRDB is fed by these different format of forest registers by executing data conversion process. This practice is served as a good reference for developing the SADC RFIS.

> For output 2, information on ASEAN Specialized Meteorological Centre (ASMC) was collected and studied as baseline information to compare with the AFIS/SADC-MESA project.

\* The concept of a Regional Specialized Meteorological Centre (RSMC) for ASEAN was initiated by the ASEAN National Meteorological Services (NMSs)

in 1985. The aim was for the Centre to support the development of ASEAN NMSs, to enable the ASEAN NMSs to fully benefit from the advances made in meteorological science and technology, and to provide the strongest support possible through weather and climate services to important economic sectors. In May 1992, the ASEAN Standing Committee endorsed the recommendation of the Committee on Science and Technology to establish the ASEAN Specialized Meteorological Centre (ASMC) as a permanent ASEAN Centre in Singapore. ASMC was officially established in January 1993 and is hosted by the Meteorological Service Singapore.

> For Output 3, information on RECOFTC - The Center for People and Forests in the Asia Pacific region was collected and studied as a good reference for the capacity development of SADC region.

RECOFTC is originally a regional training and research hub for community forestry, and now works on the ground through a network of strategic partnerships with governments, NGOs, development organizations and local people throughout Asia-Pacific, and has worked in parts of Africa. Training, capacity building and other learning activities remain central to RECOFTC's work, now complemented with on-the-ground projects, policy work, and strategic communications.

4.1.2. Coordinate planning, execution, monitoring, rearrangement of activities under the Project and evaluation of the Project and completion of the reports.

> The Project Management Unit comprising of SADC Secretariat (FANR) and the JICA experts have contributed to planning, coordination execution, monitoring and, rearrangement of activities under the Project as approved by JCC.

4.1.3. Employ and train Technical Assistant from the region to be able to play the role of Programme Officer – Forestry in the FANR Directorate of SADC Secretariat.

> The Project was initially expected to recruit an Expert (Forestry Officer) from SADC region to work alongside JICA experts to facilitate smooth implementation of the Project as well as skills transfer. Recruitment condition of the officer was discussed during project implementation and came to

conclusion that the incumbent officer should be automatically absorbed by the SADC Secretariat at the end of the Project. But it was found to be difficult to recruit the officer since the position of Programme Officer Forestry in SADC Secretariat is categorized as flexi, meaning that it cannot be funded under the mainstream Member States budget allocation to SADC Secretariat. This being the case SADC Secretariat was not able to provide guarantee that it will automatically absorb the incumbent at the end of the Project.

> Considering above situation, this item “4.1.3.” was deleted and the activity was replaced to enhance the item “4.1.5.” as an alternative plan.

4.1.4. SADC Secretariat employs the person trained by this project as an Assistant Officer in-charge of forest by FANR Directorate of SADC Secretariat.

> This item “4.1.4.” was deleted and the activity was replaced by item “4.1.5.” as an alternative plan with the same reason as above “4.1.3.”.

4.1.5. Use and reflect the knowledge acquired in the Project for further improvement of coordination for forest conservation and sustainable forest management including the evaluation and revision of the Regional Forest Strategy 2010-2020.

> Terms of Reference to review the Regional Forest Strategy 2010-2020 was prepared by the SADC Secretariat by the end of October 2019 and the consultant was procured.

> Interviews and consultation were done during November 2019 – February 2020 to draft the revised Regional Forest Strategy 2020-2030.

> Draft SADC Forestry Strategy 2020-2030 was produced by the end of May 2020 with input from all Member States and it was presented to JCC for validation.

## 2. Achievements of the Project

### 2-1 Outputs and indicators

(Target values and actual values achieved at completion)

Output 1. The capacity of SADC Member States to enhance Forest Information System is improved.

(Objectively Verifiable Indicators for Output 1)
O1-1: Level of availability, functionality and compatibility of National Forest Information Systems (National Forest Database/Information Platform/Registry) of the Member States.
O1-2: Level of quality, coverage and quantity of data and information across among the Member States in the SADC Regional Forest Information System (SADC-RFIS).
O1-3: Level of Quality and Coverage of Forest Information of the SADC website and the Regional Forest Outlook.

(Means of Verification for Output 1)
O1-1: National Forest Information Systems (NFIS) and their data of the Member States. Reports to FAO, UNFCCC and Publications of the Member States on forests.
O1-2: The SADC-RFIS and its data.
O1-3: The SADC website and SADC Regional Forest Outlook.

(Achievement for Output 1)
O1-1: NFIS Template System using QGIS (OSS environment) was developed by the Project. The template system can be customized by each Member State without spending too much money for system development and maintenance. The template can enable MSs to develop their own NFIS even for countries that do not have the NFIS. In addition, system operation training including open data acquisition / training on how to customize the template system have been conducted.
O1-2: The SADC-RFIS was developed using Google Earth Engine (Internet cloud system development environment) by the Project. The system,

Regional Forest Distribution Map 2015 (FDM2015), is stored as baseline map to detect Forest Area / Volume Change. The system has been linked to the Project Portal website.

O1-3: The Project Portal website was developed but the website has not yet been linked to the SADC - Agriculture Information Management System (SADC - AIMS) since the development of the AIMS by FAO funding still underway. As for the Regional Forest Outlook, it will be published as soon as the year 2020's archives of Landsat imageries and Sentinel imageries are available.

Output 2. The capacity of SADC Member States to enhance Integrated Forest Fire Management is improved.

(Objectively Verifiable Indicators for Output 2)

O2: Level of integration of available information and technologies, and activities and capabilities of rural populations in the Action Plans/ Guidelines of national and local governments for Forest Fire Management.

(Means of Verification for Output 2)

O2: The Forest Fire Management Action Plans of Member States on Websites (SADC-RFIS and etc.), booklets, and other publications.

(Achievement for Output 2)

O2: The Regional Forest Fire Management Guideline for both national government and local government was developed and prepared as a booklet and it has been linked to the Project Portal website. Proposed way forward for the integrated forest fire management was prepared by each Member State at the 4<sup>th</sup> EWG-FFM meeting in Kasane, Botswana and it has been posted as Member States' action plan on the Project Portal website.

Output 3. The capacity of the SADC Member States to enhance Participatory Forest Management is improved.

(Objectively Verifiable Indicators for Output 3)
O3-1: Level of effectiveness, efficiency and operational practicality of the Developed draft of the Regional Guideline for Participatory Forest Management (PFM), including (1) Community Forests, (2) Protected Forests and (3) Industrial Forests (Plantations/ Concession Forests).
O3-2: Effectiveness and efficiency of the activities of the Expert Specialist Working Group on PFM.

(Means of Verification for Output 3)
O3-1: Final draft of the Regional Guidelines for Participatory Forest Management.
O3-2: The Reports of the Expert Specialist Working Group on PFM.

(Achievement for Output 3)
O3-1: Final draft of the Regional Guidelines for Participatory Forest Management was developed and prepared as a booklet. The guideline was organized based on the nine (9) important principles for the PFM namely: 1) Availability of quality resources, 2) Effective policy and regulatory support, 3) Clear rights and tenure among resources users, 4) Effective governance, 5) Effective participation of stakeholders, 6) Capacity of community and other key stakeholders, 7) Meeting local people's needs, 8) Adaptive management and learning, 9) Accommodating multiple stakeholders' interests. In addition, Good Practice Database for PFM was developed and shared on the Project Portal website.
O3-2: The Reports of the Expert Specialist Working Group on PFM have been posted as EWG minutes on the Project Portal website.

Output 4. The capacity of the SADC Secretariat to coordinate the above 1 to 3 is improved.
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(Objectively Verifiable Indicators for Output 4)
O4-1: Effectiveness and efficiency of SADC Secretariat's coordination on Planning, Execution, Monitoring, Reporting, and Rearrangement of the activities, Evaluation the Project.



O4-2: Level of Advertisement, Use and Reflection of the knowledge acquired in the Project for further improvement of coordination for forest conservation and sustainable forest management of the Member States.
O4-3: Improved level of Regional Policy/Strategy.

(Means of Verification for Output 4)
O4-1: Various Reports of SADC recorded and compiled by the Secretariat.
O4-2: Perception of the Secretariat by the Member States.
O4-3: SADC Regional Forestry Strategy 2020 - 2030.

(Achievement for Output 4)
O4-1: Various Reports especially JCC decisions and minutes were recorded and compiled by the SADC Secretariat.
O4-2: Through logistic arrangements and participation for the Expert Working Group meeting and Trainings for Capacity Development for each Output, Perception of the SADC Secretariat was properly built and enhanced by the Member States.
O4-3: Revised SADC Regional Forestry Strategy was drafted by making use of outputs of the Project and input from Members States obtained through interviews. The draft Forestry Strategy 2020-2030 was presented to JCC for validation before it is presented to the SADC Technical Committee on Forestry for consideration and endorsement for approval by Ministers.

## 2-2 Project Purpose and indicators

(Target values and actual values achieved at completion)

Project Purpose (PP). To develop the capacity of SADC Secretariat and Member States for promoting forest conservation and sustainable management of forest resources.
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(Objectively Verifiable Indicators for PP)
PP1: Level of practicality, effectiveness and efficiency of the regional and national policies, strategies and programmes on Forest Information System.

<p>&lt;Tangible Indicators for PP1&gt;  PP1-1 Draft SADC Forestry Strategy 2020 – 2030 (Document)  PP1-2 RFIS Guideline (RFIS System Design Document)  PP1-3 RFIS (System developed)  PP1-4 Forestry Outlook (Tabular Document)  PP1-5 NFIS Template System (System developed)  PP1-6 Project Web Portal Site (Website developed)</p>
<p>PP2: Level of practicality, effectiveness and efficiency of the regional and national policy and programmes on Integrated Fire Management.</p> <p>&lt;Tangible Indicators for PP2&gt;  PP2-1 Regional FFM Guideline (Document)</p>
<p>PP3: Level of practicality, effectiveness and efficiency of the regional and national policy and programmes on Participatory Forest Management.</p> <p>&lt;Tangible Indicators for PP3&gt;  PP3-1 Regional PFM Guideline (Document)  PP3-2 PFM Good Practice Database (System developed)</p>
<p>(Means of Verification for PP)</p> <p>PP1: Reviews and revisions of SADC "Forestry Strategy", "REDD+ Programme", "Forest Fire Management", etc., and national policy, strategy, Programme and action plans based on improved information on forest and its resources of the Member States.</p> <p>&lt;Means of concrete Verification for PP1&gt;  Ratio of completion to the listed "tangible indicators for PP1"</p>
<p>PP2: Developed/Modified regional and Member States' national policies and programmes on Integrated Forest Management.</p> <p>&lt;Means of concrete Verification for PP2&gt;  Ratio of completion to the listed "tangible indicators for PP2"</p>
<p>PP3: Developed/Modified regional and Member States' national policies and programmes on Participatory Forest Management.</p> <p>&lt;Means of concrete Verification for PP3&gt;</p>

Ratio of completion to the listed “tangible indicators for PP3”

(Achievement for PP)

PP1: Contributed to the implementation of the SADC Forestry Strategy 2010-2020. Reviewed “SADC "Forestry Strategy 2010-2020 and produced a revised draft SADC "Forestry Strategy 2020 - 2030”. The SADC-RFIS developed in the Project will make it possible to sustainably monitor Forest Area / Volume Change in the SADC region in certain periods. It will enable SADC Member States to regularly evaluate Forest Resources in respective countries and contribute to revise national policy and regulatory on forestry in each MS.

<Ratio of completion per each tangible indicator for PP1>

PP1-1 100% (Draft Final Document - Done.)

PP1-2 100% (Draft Final Document - Done.)

PP1-3 100% (System Development - Done. System Migration - Not yet. Note that JICA can support system migration task until the end of November,2020 although it depends on external factor such as progress status of the Integrated AIMS.)

PP1-4 100% (Function Development - Done. Waiting for 2020’s Dry Season Satellite Imageries archives. JICA can support publication task of Forestry Outlook 2020 until the end of November,2020)

PP1-5 100% (Template System Development - Done. Laptop PCs handover - Not yet. JICA can support equipment handover to Member States until the end of November,2020)

PP1-6 100% (System Development - Done. System Migration - Not yet. JICA can support system migration task until the end of November,2020 although it depends on external factor such as progress status of the Integrated AIMS.)

PP2: Integrated regional FFM guideline developed in the Project covers both national and local government for Forest Fire Management. It contributes to revise national policy and regulatory on forestry in each Member State.

<Ratio of completion per each tangible indicator for PP2>

PP2-1 100% (Draft Final Document – Done.)

PP3: Regional PFM guideline developed in the Project includes Good Practices for Participatory Forest Management in the SADC region. In addition the Regional PFM Database developed in the Project which has knowledge sharing purpose in the region also contributes to revise national policy and regulatory on forestry in each Member State.

<Ratio of completion per each tangible indicator for PP3>

PP3-1 100% (Draft Final Document - Done.)

PP3-2 100% (System Development - Done. System Migration - Not yet. JICA can support system migration task until the end of November,2020 although it depends on external factor such as progress status of the Integrated AIMS.)

### **3. History of PDM Modification**

Ver. 3, Ver. 4.2, Ver. 5.0

### **4. Others**

4-1 Results of Environmental and Social Considerations (if applicable)

Not applicable.

4-2 Results of Considerations on Gender/Peace Building/Poverty Reduction (if applicable)

Not applicable.

### III. Results of Joint Review

#### 1. Results of Review based on DAC Evaluation Criteria

##### (1) Relevance

###### <Consistency with development policy>

At the time of ex-ante evaluation when checking consistency of the project, SADC Protocol on Forestry 2002 and SADC Forestry Strategy 2010-2020 were used as an information source of the SADC regional development policies. Eight (8) major programme areas are stipulated as the areas to be tackled with priority. Those are 1) Climate Change Mitigation and Adaptation, 2) Protection on Key Catchment Forests, 3) Energy supply and poverty Reduction, 4) Enhanced Participatory Forest Management (PFM), 5) Enhanced intra-regional trade in forest products, 6) Cooperation in trans-boundary forest and fire management (FFM), 7) Forest assessments and information management (FIS), 8) Capacity improvement in SADC, respectively. The Project was designed to contribute to four (4) thematic targets as potential priority areas for regional cooperation on forestry, which are 4), 6), 7), and 8) out of eight (8) programme areas. Thus, it is quite reasonable and consistent with the regional development policy.

###### <Consistency with development needs>

SADC regional stakeholder meeting co-hosted by SADC Secretariat, JICA and GIZ was held in February 2013 in Johannesburg, South Africa, attended by 14 SADC Member States (Angola, Democratic Republic of Congo, Eswatini (former Swaziland), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, United Republic Tanzania, Zambia, Zimbabwe). In the meeting, SADC MSs welcomed the idea of regional cooperation on forestry, and shared common view that it would be appropriate to focus on 1) Forest Information System (FIS), 2) Integrated Forest Fire Management (FFM), 3) Participatory Forest Management (PFM), 4) Capacity improvement in SADC Secretariat as potential priority areas for regional cooperation on forestry by the Project. In that context, it is quite reasonable and consistent with the regional development needs.

<b>&lt;Appropriateness of project design/approach&gt;</b>
<b>Output 1</b>
<p>Problem was observed to implement activities under Output 1 (FIS) in the design/approach. Output 1 originally included activities for harmonizing National Forest Information System (NFIS) of the Member States. As a result of baseline study, it was observed that most of the countries in the region did not have the NFIS to be harmonized. Thus, the Project had to adapt in order to address the real needs and came up with alternative plan to provide more training opportunities to raise technical level on how to develop the NFIS as well as system development environment such as QGIS (Open Source Software), Satellite imageries (Open Data) and Laptop PCs instead of implementing the original activities.</p>
<b>Output 2, Output 3</b>
<p>Problems were observed to implement activities under Output 2 (FFM) and Output 3 (PFM) in the design/approach/measures. Output 2 and Output 3 originally included Pilot Operation as on the ground activities which were supposed to be beneficial only for a few countries in the region based on the selection criteria of the pilot areas. This design / approach was not preferred as it was found to be going against the principle of equity which advocate for equitable benefit by all SADC Member States from SADC programmes and initiatives. The Project came up with alternative plan mainly composed of additional capacity development interventions that will be beneficial to SADC Member States instead of implementing the Pilot Operation that will benefit the selected few. The alternative plan was unanimously approved by the JCC for implementation to replace original Pilot Operation activities.</p>
<b>Output 4</b>
<p>Problem was observed to implement activities under Output 4 (Capacity Development of SADC Secretariat) in the design/approach. Output 4 originally included to recruit an Expert (Forestry Officer) from the SADC region to work alongside JICA experts to facilitate smooth implementation of the project as well as skills transfer. JICA would only be ready to support the position of Forestry Officer upon receiving a guarantee that the incumbent will be automatically absorbed by the Secretariat at the end of the project. But the position of the Programme Officer Forestry, although included under the current SADC Secretariat Structure, it is categorized as flexi, meaning that it cannot be funded under the mainstream Member States budget allocation to SADC</p>

Secretariat. When it became apparent that this activity will not be implemented, the project came up with alternative plan instead of recruiting the Forestry Officer. The alternative activity includes review of SADC Forestry Strategy 2010-2020 to come up with the revised SADC Forestry Strategy 2020-2030.

**(2) Effectiveness**

Approximately 90% of the project purpose has been thought to be achieved judging from the ratio of completion per each tangible indicator for each project purpose described in “2-2 Project Purpose and indicators”. Those outputs especially “Draft SADC Forestry Strategy 2020 – 2030” could be contributing to improve National Policy / Strategy/ Programme of Member States in near future. Positive comments have been heard such as “This Project is amazing in terms of affecting National Policy / Strategy of SADC countries with raising technical skills for 3 pillars (FIS, FFM, PFM) through series of capacity development trainings.”.

(Overall Goal)
To contribute to the implementation of the Regional Forestry Strategy 2010-2020 and programmes in a more practical and more effective manner and to the Member States to develop/improve their National Policies/ Strategies/ Programmes on Forest Information System, Forest Fire Management and Participatory Forest Management.

(Objectively Verifiable Indicators for Overall Goal)
OG1: The practicality and effectiveness of the Regional Forest Strategy 2010-2020.
OG2: Improved level of National Policy/ Strategy/ Programme on Forest Information System, Forest Fire Management and Participatory Forest Management.

(Means of Verification for Overall Goal)
OG1: The SADC Regional Forestry Strategy 2010-2020.
OG2: National Policy/ Strategy/ Programme of Member States on Forest Information System, Forest Fire Management and Participatory Forest Management.

(Achievement for Overall Goal)
<p>OG1: The practicality and effectiveness of the Regional Forestry Strategy 2010-2020 is expected <u>after the end of the Project</u>. Regional Guidelines for major Outputs were prepared by the Project through series of discussions under each Expert Working Group meeting, namely the RFIS system design document for the Output1, the Integrated FFM Guideline for the Output 2, the Regional PFM Guideline for the Output 3. These Guidelines include solutions against challenges described in the SADC Forestry Strategy 2010 – 2020 and are regarded as major outputs of the Project. When it comes to evaluation for the practicality and effectiveness of these Guidelines as a tool to support implementation of the Regional Forestry Strategy, it should properly be tested and verified through on-the-ground activities. As already mentioned in “Appropriateness of project design/approach” under “(1) Relevance”, the pilot operation which has on-the-ground activities were replaced to alternative activities (capacity development trainings for all the MSs) and there is no sufficient time for the evaluation of practicality and effectiveness.</p>
<p>OG2: Improved level of National Policy/ Strategy/ Programme on Forest Information System, Forest Fire Management and Participatory Forest Management are also expected <u>after the end of the Project</u> with the same reason described in “OG1”.</p>

### (3) Efficiency

(Project Cost)

Planned Project Cost:	640 million yen (equivalent to 5.82 million USD)
Actual Project Cost:	735 million yen (equivalent to 6.68 million USD)

<Reason why the Actual Project Cost was increased>
<p>Because additional activities (3.3.6. Develop Data Base, 3.3.7. Conduct Data Base Training, 3.3.8. Develop Action Plan) were conducted as counter activities against 3.3.2. and 3.3.3. Especially “3.3.8. Develop Action Plan” was for creating Project Idea Note (PIN) per each Member State as the way forward strategy of the Project.</p>

(Project Period)

Planned Project Period:	2014/12 – 2019/11 (60 Months)
Actual Project Period:	2015/7 – 2020/9 (63 Months)



<Reason why the Actual Project Period was extended for 3 months>
Because the last Joint Coordination Committee (JCC) was re-scheduled due to concerns over the worldwide spread of COVID-19.

#### (4) Impact

##### 1. Perspective from **Prediction for achieving Overall Goal**

Indicators for verifying Overall Goals requires the practicality and effectiveness of the SADC Forestry Strategy, Improved level of National Policy / Strategy/ Programme on 3 pillars. The Overall Goals are expected to be gradually achieved after the end of the Project by testing and verifying Outputs of the Project on the actual field / ground. On-the-ground test and verification for following outputs per each pillar should be done after the end of the Project in order to achieve Overall Goals step by step. And certain Impact for the Development Plan for SADC Member States can be prospected by achieving Overall Goals.

##### **(Major Outputs of Output 1 - FIS)**

- > NFIS (NFIS Template system should be customized considering national circumstances of each Member State. Follow-up trainings might be required since technical progress is very fast in ICT field.)
- > RFIS (Detection of Forest Area/Volume Change should be verified using ground truth data for raising accuracy per each country.)

##### Feedback from the FIS Group

Comment from EWG-FIS member (Malawi)
<ul style="list-style-type: none"> <li>· Knowledge and technique to detect Forest Area Change by the RFIS has been applied to the current on-going Project (COSMA-DFR), The Project for Conservation and Sustainable Management of Dzalanyama Forest Reserve).</li> </ul>
Comment from EWG-FIS member (Botswana)
<ul style="list-style-type: none"> <li>· The RFIS is a nice tool which I believe will help the region to avail forest information which has being lacking such as like land cover change. Countries will be able to produce forest distribution map through the RFIS website which is good.</li> <li>· It is a useful tool which I find it very informative when it comes to detecting</li> </ul>

land cover change/ vegetation loss. Combining the system with ground truthing exercise could give us precise/efficient results.

Comment from EWG-FIS member (Zambia)

• The training was eye opening experience and the tools provided in the training will enhance to the generation of land cover maps as well as will the operations of the department of Forestry.

**(Major Outputs of Output 2 - FFM)**

> Integrated FFM Guideline (Contents of the Guideline should be scrutinized whether it is practical in the field in each Member State.)

Feedback from FFM Group

Comment from EWG-FFM member (Eswatini)

• We practiced using the tablet PC in measuring areas to be harvested, burnt and to be replanted. We were very excited about the efficiency of the gadget unlike the measuring wheel which is difficult to maneuver in between stumps, rocks.

Comment from EWG-FFM member (Lesotho)

• The Tablet PC was used to map and delineate a burnt area in the Woodlot in one of the Dry Area of Lesotho (Mafeteng District) in the South of the country.

Comment from EWG-FFM member (Tanzania)

• Four cascade trainings have been done since the project provided us the Tablet PC. About 68 participants from southern Highland Zone, Northern Zone and Lake Zone participated as well.

• The following applications were done;

- i. Field verification
- ii. Burnt Area calculation
- iii. Fire line measurement
- iv. Polygon creation for different purpose
- v. Line creation
- vi. Points for identification of common physical features
- vii. To fill all information found during the field work

**(Major Outputs of Output 3 - PFM)**

> Regional PFM Guideline (Contents of the Guideline should be scrutinized whether it is practical on the actual field per each country.)

Feedback from PFM Group

Comment from EWG-PFM member (Mauritius)

• The training programs under the project were beneficial to Mauritius in terms of capacity building and learning experiences from other countries on the effective management and development of participatory forestry approach by involving multi stakeholders including Private forest land owners, NGOs, local people, small handicraft businesses, bee keepers, promoters involved in forest based activities namely eco-tourism and recreational activities.

**(Major Outputs of Output 4 – Capacity Development of SADC Secretariat)**

> Draft SADC Forestry Strategy 2020 – 2030 (Contents of the Strategy should be scrutinized whether it is practical on the actual field per each country.)

**2. Perspective from Relation between Cause and Effect**

It seems it is consistent between the Overall Goals and Project Purpose. But it should be noted that there must have time gaps before achieving Overall Goals even after the end of the Project considering its nature of the outputs since activities in the Project were focused more on capacity development on 3 pillars (FIS, FFM, PFM) than improvement of National Policy / Strategy/ Programme on the same 3 pillars.

**3. Perspective from Ripple Effect**

> Ownership for the SADC-RFIS by Member States through National Data feeding to the SADC-RFIS by Member States can be expected.  
 > Accuracy of Regional Forest Data (Forest Area/Volume) through Ground Truthing by Member States can be expected.  
 > Review of economic values of Non-Timber Forest Products (NTFPs) through understanding more accurate distribution of Forest can be expected.

**(5) Sustainability**

**1. Perspective from Policy / Institution**

Sustainability: **High**

The Project is designed and formulated to contribute to the existing policy that is “SADC Protocol on Forestry 2002”, and “SADC Forestry Strategy 2010 – 2020”. These provide overarching policy framework for forestry collaboration

<p>amongst Member States and SADC Secretariat is committed to implement programmes based on them. The three guidelines for FIS, FFM and PFM developed by the project and the draft “SADC Forestry Strategy 2020 – 2030” will be presented to SADC Technical Committee on Forestry for endorsement and to the Ministerial Committee for approval. Considering above situation, perspective from Policy / Institution is thought to be high.</p>
<p><b>2. Perspective from Current Structure of the Member States</b></p>
<p>Sustainability: Medium</p>
<p>It is recognized that there is limited capacity of government institutions responsible for forest management in each Member State. When they are under-staffed or under-equipped mainly because of inadequate funding and poor infrastructure, they cannot perform their duties for managing forest. Across SADC region, capacity of forest institutions varies depending on legislations, forestry statistics, donor priorities in the country, budget allocation and mandate to collect and retain revenue obtained from forest resources related trade. Considering above situation, perspective from Current Structure of the Member States is thought to be Medium, and this should be improved considering the Global / Regional challenges like SDGs or Climate Change Mitigation / Adaptation.</p>
<p><b>3. Perspective from Technical aspect of the Member States</b></p>
<p>Sustainability: Medium</p>
<p>Technical officers who are familiar with ICT knowledge in most Member States are unfortunately under-staffed mainly because of inadequate funding and poor infrastructure. It seems that it would be difficult to deal with the FIS related operations which require a certain level of ICT knowledge and technical skills to develop/improve the National Forest Information System (NFIS). But if the EWG-FIS members who had FIS related trainings in the Project could properly be involved in developing/improving the NFIS or if they could conduct cascade follow-up trainings in their government institutions responsible for forest management, sustainability might be much improved. Considering above situation, perspective from Technical aspect of the Member States is thought to be Medium.</p>
<p><b>4. Perspective from Financial aspect of the Member States</b></p>

Sustainability: Low
The government institutions responsible for forest management in each Member State do not seem to have enough budget for sustainable implementation of the Project unless external funding is available. Financial situation of the Member States is thought to be a key factor affecting to improve under-staffed and un-equipped situation of the government institutions.

## 2. Key Factors Affecting Implementation and Outcomes

<b>Key Factors Affecting for the Output 1 (FIS)</b>
Implementation of Pilot Operation for developing / modifying the NFIS and harmonizing the NFISs of the MSs for the Output 1 (FIS) which were expected to be done in the original Plan of Operation (PO) was found to be irrelevant because most of Member States did not physically have the NFIS to be harmonized at the time of project commencement.
<b>Key Factors Affecting for the Output 2 (FFM)</b>
Implementation of Pilot Activities in SADC MSs for the Output 2 (FFM) which was expected to be done in the original Plan of Operation (PO) was regarded as inappropriate in terms of site selection criteria because the Pilot Activities will not equitably benefit all SADC Member States.
<b>Key Factors Affecting for the Output 3 (PFM)</b>
Implementation of Pilot Activities in SADC MSs for the Output 3 (PFM) which was expected to be done in the original Plan of Operation (PO) was regarded as inappropriate in terms of site selection criteria because the Pilot Activities will not equitably benefit all SADC Member States.
<b>Key Factors Affecting for the Output 4 (Capacity Development of the SADC Secretariat)</b>
The Output 4 originally included to recruit an Expert (Forestry Officer) from the SADC region to work alongside JICA experts to facilitate smooth implementation of the project as well as skills transfer. It was regarded as inappropriate because there was no guarantee that the incumbent would be automatically absorbed by SADC Secretariat at the end of the project.

### 3. Evaluation on the results of the Project Risk Management

#### (1) Results of the Project Risk Management

##### **Results of the Project Risk Management for the Output 1 (FIS)**

Alternative plan was proposed by the Project which was thought to be beneficial to all SADC Member States for the risk mitigation purposes and approved at the 3<sup>rd</sup> JCC meeting in April 2017 in Johannesburg, South Africa. The alternative plan mainly consisted of providing NFIS development environment which included Laptop PCs and customizable NFIS template system and additional capacity development training.

##### **Results of the Project Risk Management for the Output 2 (FFM)**

Alternative plan was proposed by the Project which was thought to be beneficial to all SADC Member States for the risk mitigation purposes and approved at the 3<sup>rd</sup> JCC meeting in April 2017 in Johannesburg, South Africa. The alternative plan mainly consisted of conducting additional capacity development training and developing Project Portal website for knowledge sharing purpose.

##### **Results of the Project Risk Management for the Output 3 (PFM)**

Alternative plan was proposed by the Project which was thought to be beneficial to SADC Member States for the risk mitigation purposes and endorsed by the EWG-PFM on 10th February 2017 in Bangkok, Thailand. The alternative plan mainly consisted of developing PFM Regional Database and conducting additional capacity development training. The alternative plan was presented and approved at the 3<sup>rd</sup> JCC meeting in April 2017 in Johannesburg, South Africa.

##### **Results of the Project Risk Management for the Output 4 (Capacity Development of the SADC Secretariat)**

Alternative plan was proposed to the JCC members by the SADC Secretariat to support the review of the SADC Forestry Strategy (2010-2020) in order to provide a framework for both regional cooperation and international engagement on forest issues as well as concerted action by SADC Member States in the management, conservation and sustainable use of their forests for the next 10 years. The proposal was approved by JCC.

#### (2) Results of the utilization of the lessons learnt

##### **Lessons learnt for the Project**

At the commencement of the Project, 1) it was recommended to hold frequent workshops and provide opportunities for Forestry Officers and Technical staff in Member States to communicate with each other as lessons learnt of the past project. 2) Efficient implementation of the Project was also recommended by cooperating with the other existing JICA projects.

**Results of the utilization of the lessons learnt**

1) Expert Working Groups (EWG) for 3 pillars were established namely EWG-FIS for Output 1, EWG-FFM for Output2, EWG-PFM for Output 3 and following numbers of EWG meetings were held per each Output in total.

(Numbers of EWG meetings)

For Output 1: EWG-FIS met 4 times

For Output 2: EWG-FFM met 4 times

For Output 3: EWG-PFM met 6 times

Technical discussions were held even in the capacity development training activities in order to supplement communication opportunities among Forestry Officers and Technical Officers of the Member States.

2) Following JICA projects were utilized for the efficient implementation of the Project.

a) The project for Conservation and Sustainable Management of Dzalanyama Forest Reserve (commonly referred to as “COSMA-DFR”) in Malawi

Project duration: 2016 - 2021

b) The project for Enhancing National Forest Monitoring System for the promotion of Sustainable Natural Resource Management (commonly referred to as “NFMS”) in Botswana

Project duration: 2013 - 2017

The COSMA-DFR project provided good practice on PFM activity when the 5<sup>th</sup> EWG-PFM meeting was held in Malawi. While the NFMS project provided good materials for discussion on how to prepare the Forest Distribution Map (FDM) when the 2<sup>nd</sup> and the 4<sup>th</sup> EWG-FIS meetings were held in Botswana.

#### 4. Lessons Learnt

##### Lessons Learnt

Typical Lessons Learnt acquired through implementing the Project is the importance of ensuring equity in terms of nature of activities and reach by all Member States when designing activities for Regional Project such as SADC Forestry Project. SADC countries consist of Continental countries and Small Island State. Interests, challenges and concerns of the continental and Small Island States are usually different. For example, although continental states are concerned about cross border Forest Management issues such as Trans-boundary Fire Management challenges, Island States are not concerned by this issue because they do not have national boundary on the ground. Thus, fairness and equity should be taken into consideration among countries when designing components and activities of the regional project because needs and priorities differ among them.

Furthermore, it has been observed that there are still some challenges and constraints which the forest sector in the SADC region must contend with, and particularly those that need concerted action in a regional context. The project has prepared the “Draft SADC Forestry Strategy 2020 – 2030” and following issues are identified and highlighted as challenges and constraints in the SADC region prior to improving the revised SADC Forestry Strategy.

<Challenges and constraints of the forest sector in the SADC region>

##### **1) Conversion of forest lands to other uses**

The conversion of forest land to small scale agricultural areas, grazing land, infrastructure and other land use is an ongoing challenge across SADC region that requires attention. These forms of land uses, which expose forests to degradation, are often associated with politics, rural development as well as the need to improve food production, search for grazing land due to growing populations, and provision of infrastructural needs in rural areas. The pressure from small scale agriculture is always associated with use of fire during farm preparation and shifting cultivation.

##### **2) Encroachment into forest areas both inside and outside forest protected areas**



The encroachment into forest areas both inside and outside forest protected areas is still a major threat facing Member States across the SADC region. This encroachment comes in the form of unsustainable artisanal mining (e.g. DRC, Tanzania), illegal hunting using fire, charcoal production (e.g. Malawi, Mozambique and Zambia), and unsustainable and illegal logging among others. These forms of encroachment open-up forest areas, lead to habitat fragmentation, expose land to degradation, and remove high value tree species.

### **3) Demand for energy from fuel wood and charcoal**

Most SADC countries, including the Island State of Madagascar depend on wood for energy, either in the raw form or as charcoal. The wood energy demand is the most underrated and unreported economic contribution of the forest sector. It also goes to suggest that sustainable energy supply solutions to Africa, especially if it means supplying wood from sustainable sources and using less of it through diversification, will have significant positive effects on the quality of forest cover and global emission reductions.

### **4) Limited capacity of government institutions responsible for forestry management**

This is a major constraint since the forest services (or departments, or authorities) of each country are the main custodians of the law and when they are under-staffed or under-equipped mainly because of inadequate funding and poor infrastructure, they cannot perform both their production, monitoring and regulatory roles. Across SADC, capacity of forest institutions varies depending on legislations, forestry statistics, donor priorities in the country, budget allocation and mandate to collect and retain revenue obtained from forest resources related trade.

### **5) Inadequate participation of local communities in productive forest management**

Across SADC region, large number of local communities living near forest resources do not hold sustained rights to participate in forest management and obtain a share of benefits generated from sale of forest products. The degree to which local communities are bestowed or awarded some form of legal tenure to own commercially viable tracts of forest land varies from country to country

given the legislative framework, presence of non-state actors to promote such schemes, and history of how forests have been perceived from prior to independence. It is estimated that Africa has the lowest forest ownership by local communities representing 6% of the 396 million hectares of forest area.

#### **6) Inadequate formal intra-regional trade in forest products between most Member States**

Several countries in SADC decry the fact that significant amounts of cross-border trade in forest products is ad hoc and often illegal, unreported and harvested unsustainably. The phenomenon of unsustainable, illegal and unreported trade in forest products across political boundaries is a serious issue. If unchecked, it can represent major losses in revenue to both local and central governments for economic development of the country. Worse still, illegal logging and trade tend to lead to resource degradation, loss of biodiversity and weakened governance structures, all of which may increase poverty and threaten peace and security. These concerns on illegal logging and trade in both timber and other forest products call for collaboration and concerted action in the region and would need policies and laws that are complementary or harmonized across Member States to enforce compliance.

#### **7) Climate change**

Across the SADC region, forests are increasingly facing pressure from the effects of climate change. These effects range from increased frequency of fires and floods which could expose forest areas to erosion and lead to land degradation and reduce suitable areas for agriculture of which large populations rely on. The effects facing forests has direct implication on habitat for biodiversity and reducing a global share of how SADC forests can play a role as carbon sinks.

#### **8) Development of forest plantations sector**

The challenges related to plantation sector are clustered across many areas including legislative and government support, and capacities within and along value chain:

##### **Government and legislative support:**

The development and growth of commercial plantations is entirely dependent

on the national governments' ability to build a conducive investment environment for the private sector to operate.

**Financial investments:**

Although SADC Member States such as Tanzania, South Africa have created and reformed their forest policies to enable investments in plantations and encourage commercial tree planting, financial investors still see disparity in national experiences and in most cases conditions set not attractive and secure to long-term interests.

**Production:**

Across Member States, the plantation sector has issues around quality of planting materials, low investment in silvicultural practices, aggregation in situations where they have smallholders with dispersed woodlots, and lack of forestry extension services.

**Processing:**

A few issues here were reported across the region including low use of modern technology with high recovery rate, which affect the quality of the product and competition in the market.

**End markets:**

The end markets for wood from plantation forests are affected by competition in domestic markets and lack of favorable public procurement policies. In many cases, for example, domestic markets do not recognize and reward quality and do struggle to compete with imported wood products (e.g. marine boards, furniture from China) and illegally harvested and imported hardwoods.

**9) Invasive Alien Species (IAS)**

The IAS can destroy forest ecosystems, compete with and colonize native tree habitat, and lead to extinction. At introduction, IAS could also be a source of diseases that may directly affect trees and other agricultural crops. In terms of regional concerted actions, the attention on IAS appears to have peaked between early 2000's to about 2010 with various pilot policy and on ground projects across the region aimed at prevention and management of alien species. These projects were scattered from Malawi, Mauritius, South Africa,

Zambia, South Africa, Zimbabwe and Seychelles. Currently, at national level, countries do not possess the necessary research, technical knowledge and financial means to effectively control IAS. While the funding support has gone down over the years, the problem of IAS has not gone away in recent years. SADC Ministers of Environment, Natural Resources and Tourism at their meeting of October 2019 noted the concern raised by Member States regarding the serious challenge posed by invasive species across the SADC region, with transboundary implications and directed SADC Secretariat to develop the SADC Alien and Invasive Species Strategy.

### **Approach on how to utilize the Lessons Learnt**

#### **Approach taken for the first typical lessons:**

Pilot operations /activities were originally designed /included in the Project for the 3 pillars (FIS, FFM, PFM) and criteria was made for selecting certain countries for them. But some countries were not satisfied by selecting some of them based on it as this could result into lack of equity whether perceived or real. As a result, the Project made counter proposal with hearing opinions from EWG members to conduct additional capacity development technical trainings and develop knowledge sharing tools such as PFM good practice database so that all the MSs can be beneficial instead of implementing pilot operations /activities.

#### **Opportunities for addressing challenges of the forest sector**

Just as much as there are challenges to contend with to manage SADC forests, in an increasingly competitive and globalized world economy, there are also opportunities which SADC needs to be cognizant of and use to its advantage. A few of such opportunities are highlighted herein:

##### **1) Growing Influence of SADC as a bloc on International processes important to the forestry sector**

In recent years, there has been increasing recognition of the role of the SADC Secretariat by the Member States and other stakeholders as a regional platform for discussions and supporting agreements on positions of key international multilateral environmental agreements related to forestry. There is also recognition of collective action shared by SADC Member States in negotiating as a regional bloc on key international issues such as UNFF, UNFCCC, CITES

etc., engagement with other regional blocs in timber importing countries, and other related agreements where forestry is crucial. For example, in the second half of the last decade, the secretariat has taken active steps in mobilizing new partnerships, elevating forestry agreements (e.g. Zanzibar Declaration) to high-political level, supporting Member States to have common positions towards international multilateral environmental agreements (e.g. CITES, CBD), and initiating regional processes to engage timber importing countries in Asia. As a bloc, SADC has also become active in pursuing regional approaches that seek to address challenges related to increasing illegal export of timber to South East Asia, and management and storage of accumulating stockpiles of forest products, mainly timber. In 2019, SADC Secretariat and WWF commissioned a research to assess the potential of and provide framework for development of harmonized mechanism for inventory, management and disposal of seized stockpiles of timber and other forest products; and a bloc agreement between SADC and Member States of the Association of South East Asian Nations Plus Three (ASEAN+3) on cooperation to tackle illegal trade in timber and other forest products and improve sustainable forest management.

## **2) Existing bilateral and regional agreements related to the SADC region**

There are number of existing bilateral and regional agreements (e.g. Zanzibar Declaration) that could contribute to address challenges of the forest sector. There are also agreements that have been tried (e.g. Zambia, Angola, Namibia) and currently under development (e.g. South Africa - Eswatini). These agreements underline the commitment of Member States to work together bilaterally and at regional level within SADC and beyond. These agreements could be a building force for SADC to identify areas that Member States could be supported with issues related to timber trade, NTFP, fire management, information sharing.

## **3) Increased appetite for Member States to undergo institutional transformation on their forest authorities**

Given the limited institutional capacity to address and control some of the challenges related to forestry, some Member States (e.g. Botswana and Mozambique) have expressed a strong desire to seek transformation. The need to transform and to seek lessons from other Member States is an opportunity

for addressing the challenges of limited capacity of government institutions responsible for forestry management.

#### **4) Potential for bilateral legal timber trade**

Within the context of timber trade, there is a potential for SADC's biggest exporters of tropical hardwoods to develop new formal markets within SADC and legalize cross-continental trade with booming Asian markets. This would develop a competitive wood/timber market, enhance cooperation among Member States to deal with the ever-growing issue of illegal and unreported trade between countries and beyond. SADC Member States that are currently concerned with illegal harvesting and illegal trade are Angola, the DRC, Madagascar, Malawi, Mozambique, and Zambia. These top exporters have expressed interest to increase trade with fellow SADC states, attract legal and sustainable investments, and call for legal arrangements within SADC to control illegality. This interest is a very significant opportunity that should be taken up, in order to strengthen the timber economy of SADC to benefit the region, especially if the member states also commit themselves to control illegal trade which some few countries suffer from.

#### **5) The growing interest and potential of forest plantation sector**

Despite the challenges related to the forest plantation sector, some developments across Africa indicate a strong momentum for the sector given increased interests by governments, commercial plantations companies and the financial investors. These developments include the potential of lower cost brownfield investments and expansions of past greenfield investments; lessons from investments and operation of plantations over the last two decades; increasing focus on natural climate solutions and negative emissions over recent years; increasing interest by African grown institutions such as the AfDB and local banks in forestry sector; and presence of global platforms that offer a dialogue mechanism among governments, communities, financial investors and private sector such as New Generation Plantations (NGP). The other current financial investors that are potential for the SADC region, which have also indicated interest, include Northern Europe fund, local banks across many Member States.

## **IV. For the Achievement of Overall Goals after the Project Completion**

### **1. Prospects to achieve Overall Goals**

#### **(Overall Goal)**

To contribute to the implementation of the Regional Forestry Strategy 2010-2020 and programmes in a more practical and more effective manner and to the Member States to develop/improve their National Policies/ Strategies/ Programmes on Forest Information System, Forest Fire Management and Participatory Forest Management.

#### **Prospects to achieve Overall Goals**

The Overall Goals can be achieved by monitoring the usage of the Regional Guidelines for each Output and the revised “SADC Regional Forestry Strategy 2020 – 2030” which was drafted by the Project. Those outputs can be contributing to improve National Policy / Strategy/ Programme of Member States in near future. The Overall Goal can gradually be achieved after the end of the Project considering its nature of the outputs.

#### **Risk factors to achieve Overall Goals**

> The Overall Goals can be gradually achieved after the end of the Project by testing and verifying Outputs of the Project on the actual field / ground. If certain time for on-the-ground test and verification of the Outputs of the 3 pillars will not be spared after the end of the Project, it might be difficult to achieve the Overall Goals. It is thought to be a risk factor to achieve Overall Goals.

> The government institutions responsible for forest management in each Member State do not seem to have enough budget for sustainable follow up of the Project unless external funding is available. Financial situation of the government institutions responsible for forest management is thought to be a risk factor affecting to achieve Overall Goals.

### **2. Plan of Operation and Implementation Structure of the SADC Secretariat side to achieve Overall Goal**

#### **Plan of Operation of the SADC Member States /Secretariat to achieve Overall Goal**

> The SADC Member States needs to review, test and verify the following

Outputs of the Project with having Ownership as Plan of Operation after the end of the Project.

\* For Output 1 (FIS):

- 1) Review the RFIS system design document
- 2) Develop /Customize the NFIS based on the NFIS template system.
- 3) Implement the Ground Truthing and Operate the SADC-RFIS in order to improve the accuracy of the Forest Area /Volume Change in each country.

\* For Output 2 (FFM):

- 1) Review the Integrated FFM Guideline
- 2) Test and verify the Guideline on the field / ground
- 3) Reflect knowhows to Guideline as a feedback so that the Guideline can be more practical.

\* For Output 3 (PFM):

- 1) Review the Regional PFM Guideline
- 2) Test and verify the Guideline on the field / ground
- 3) Reflect knowhows to Guideline as a feedback so that the Guideline can be more practical.

> The SADC Secretariat needs to facilitate approval of the revised draft “SADC Forestry Strategy 2020 – 2030” by SADC statutory structures.

> The SADC Secretariat needs to make follow-up arrangements for brushing up the Guidelines with reflecting knowhows getting from Member States.

### **3. Recommendations for the SADC Member States /SADC Secretariat**

#### Recommendations for the SADC Member States

> Test and verify of the Project Outputs (Guidelines) on the actual field /ground by the EWG members.

> Feedback knowhows to the SADC Secretariat to modify /revise the guidelines based on the results of the field study if necessary.

> Continuous training (including self-training) especially for the FIS group to keep up with the latest technics since the progress of ICT field is very fast and



the technics learned here might be obsolete soon.

- > Keep update of the contents of the Regional PFM Database in order to share good knowledge to the rest of the SADC Region.
- > Formulate Projects /Programmes based on the PINs developed /prepared in the Project with utilizing lessons learnt of the Project.

**Recommendations for the SADC Secretariat**

- > Coordination of follow-up EWG meeting to discuss on modification /revision of the guidelines.
- > Monitoring of the progress in each Member State on utilization of the Project Outputs and how it affects to develop /improve National Policies /Strategies.

**4. Monitoring Plan from the end of the Project to Ex-post Evaluation**

**Monitoring Plan for the SADC Member States**

- > JICA Overseas Offices can continuously monitor the Member States after the completion of the Project based on the action plan prepared by the Member States at the last EWG meeting of respective Output.
- > JICA Overseas Offices can follow up the Project Idea Notes (PINs) prepared by the Member States to formulate succeeding projects with introducing external funding per each Member State.

**Monitoring Plan for the SADC Secretariat**

- > JICA Botswana Office can continuously monitor /follow up the SADC Secretariat to keep contact with the Officer under the FANR.