## **Summary of the Results of Evaluation Study**

I. Outline of the Project		
Name of Country: The Republic of Malawi	Project Title: Sustainable Land Management Promotion (SLMP) Project	
Issue/Sector: Agriculture Development	Cooperation Scheme: Technical Cooperation Project	
Office In-Charge: Agricultural and Rural Development Group 2, Rural Development Department, JICA	Cost: 395million yen	
The Project Period: November 2011– November 2015 (four (4) years)	Partner Country's Implementing Organization: Land Resource Conservation Department (LRCD) of Ministry of Agriculture, Irrigation and Water Development (MoAIWD) Related Institutions (Japan):	

## 1-1. Background of the Project

In the Republic of Malawi (hereinafter referred to as "Malawi"), 80% of the working population is engaged in agriculture, and more than 90 % of them are small farmers. The mean farmland area per household is around 0.8ha. The agricultural productivity is generally low because of the access to input agricultural materials or farming techniques, infrastructure such as irrigation facilities are limited. The national poverty ratio is very high (50.7%) in 2011, and, in particular, the value in rural areas (56.6%) is much higher than that in urban areas  $(17.3\%)^1$ .

For resolving these issues, the Malawian Government formulated "Agricultural Sector Wide Approach (hereinafter referred to as "ASWAp")" in 2009, and has placed the dissemination of Sustainable Land Management techniques (hereinafter referred to as "SLM techniques") as one of the key issues in the development policy. The SLM techniques are consisted of soil fertility improvement, soil and water conservation, conservation agriculture, rainwater harvesting, and agroforestry. It is intended that farmers take proper techniques to meet each situation in their fields to improve their soil fertility and agricultural productivity. The Sustainable Land Management Promotion Project (hereinafter referred to as "the Project") focuses to soil fertility improvement in the SLM techniques.

Although Ministry of Agriculture, Irrigation and Water Development (hereinafter referred to as "MoAIWD") supports agricultural production through subsidies for quality seeds or fertilizers to farmers, the agricultural inputs are severely in shortage. While utilization of compost and prevention of soil erosion are required to improve agricultural productivity under the situation, but the techniques are not sufficiently prevailed up to the present.

Under these circumstances, the Project has been implemented since November 2011 as 4 years project based on the agreement between MoAIWD and Japan International Cooperation Agency (hereinafter referred to as "JICA"). Before the completion of the project period (November 2015), this terminal evaluation study has been carried out for evaluating the degree of achievement of the Outputs and the Project Purpose, etc.

## 1-2. Project Overview

- (1) Overall Goal: Appropriate Sustainable Land Management (SLM) techniques are diffused to nationwide.
- (2) Project Purpose: Capacity of MoAFS to diffuse appropriate SLM techniques is enhanced.

# (3) Outputs:

1) Institutional and human capacity for soil and/or compost testing, and skills for field test in Mzuzu ADD are improved.

- 2) LRCD SMSs and extension agents in Mzuzu ADD are equipped with the SLM techniques.
- 3) Compost making and application techniques are applied by pilot site farmers.
- 4) Measures to diffuse the SLM techniques nationwide are provided.
- (4) Target Areas: 4 districts (Rumphi, Mzimba N/S, Nkhata-Bay) in Mzuzu ADD (Northern region of Malawi)
- **(5) Implementing Agency:** LRCD involving Department of Agricultural Research Services (DARS and Department of Agricultural Extension Services (DAES) under MoAFS, Government of Malawi

<sup>&</sup>lt;sup>1</sup> National Statistics Office (NSO)Statistical Year Book, 2012 P.90

#### (6) Inputs:

Japanese Side: (total 395 million Yen)

Long-Term Experts: 2 persons Equipment: 32million yen

Short-Term Experts: 8 persons Local Operation Cost: MWK150,252,191.98

(42million yen)

Training in Japan for Counterpart Personnel: 3 participants

Malawian Side(Total budget: MWK36,030,202 (9,944 thousand Yen)

Disbursed up to April 2015: MWK17,907,790 (4942 thousand Yen) for

Counterpart (23 personnel), Office space, and equipment for compost making

#### **II. Evaluation Team**

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Malawian Side	Mr. Thaf Mlebe (Evaluation), Economist, LRCD, MoAIWD		
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Japanese Side	Mr. Shunsuke TAMURA (Plan Management), Special Advisor, Rural Development Group 2, Rural Development Department, JICA		
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Ms. Kazuko SHIRAI (Evaluation Analysis), Consultant, Kaihatsu Manage			
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Period of Evaluation	April – May 1, 2015	Type of Evaluation: Terminal Evaluation	

#### III. Results of Evaluation

## 1. Project Performance

#### 1-1. Achievement of Outputs

Since the Mid-term Review was conducted in March 2014, the Project has implemented its activities in line with the revised PDMVer.2 and PO, and achieved the goals of Output  $1 \sim 3$ . Output 4 is expected as implemented by the end of the Project as follows:

## The Output 1 relating to research development is achieved as following detailed evaluation results:

- A Manual for soil and compost analysis techniques was drafted.
- > Technical recommendations and messages on compost application for soil fertility improvement will be compiled by the end of the Project
- Lunyangwa ARS started to provide soil and compost analysis services requested from varieties of entities.
- ➤ In accordance with the research protocol, nearly 1,700 of growth and harvest data on the effects of compost have been collected from research stations and LFs.
- Although the trend in soil fertility in the 2014/15 crop season has been under analysis, crop stands in LFs' trial plots are visibly improved even in the serious drought of this season.

#### The Output 2 relating to extension is partially achieved as follows:

- Training for 585 of Mzuzu ADD officers, District officers, Technical staff, and Extension agents has been conducted.
- Training modules, titled "Training Module for Field Trails on Compost Making & Application Trials" was drafted up to the third version.
- LRCD SMSs in Mzuzu are trained on the SLM techniques through the project activities in collaboration with the Japanese experts and training in Japan.
- With self-confidence, LRCOs in target districts instruct compost related techniques for extension agents in the fortnight training.

# The Output 3 relating to capacity development of leader farmers (hereinafter 'LFs') is expected to be achieved by the end of the Project.

After receiving training on three kinds of compost making in July 2013, 45 (91%) of 49 LFs in 2013/14

- season, and 42 (86%) LFs in 2014/15 season prepared the SLMP demonstration trials.
- Inadequate monitoring and follow up, inaccessibility of materials and water, and lack of labor for manure production caused some dropouts of LF.
- AEDOs hold Field Days in which LFs demonstrate their trial plots to other farmers. Some of those farmers become FFs and receive instruction from LF on how to make and apply manure compost.
- LFs have recognized improvement of crop stands this year even in the serious drought.
- Precise number of farmers in Mzuzu ADD is not surveyed by the Project.

# The Output 4 relating to dissemination of SLM techniques is expected to be achieved by the end of the project period as following detailed evaluation results:

- The Project plans to hold a seminar/workshop nationwide on compost making and application for LRCD SMSs by the end of the Project.
- The Project will present the results and achievement of the Project at the Sustainable Land and Water Management Technical Working Group of ASWAp.

## 1-2. Achievement of the Project Purpose:

# <u>Project Purpose is expected to be achieved if the rest of activities are implemented as planned with following factors:</u>

- a. The Project will compile the result of 2014/15 crop season into the SLM technique handbook.
- b. Distribution of the reviewed handbook to 28 districts' LRCD and Extension SMS may not be reachable by the end of the Project. On the field, LRCOs already utilizes the Technical Information Series when they train extension agents in the fortnight training.
- c. Since its establishment in 2012, Lunyangwa ARS has delivered soil and compost testing in Northern region.
- d. Feed backing of the results to farmers still remains as a challenge.

#### 1-3. Implementation Process

The Joint Coordination Committee (JCC), as the highest decision-making mechanism of the Project, was held three times to date, including the latest JCC on April 29, 2015 for discussion of result of the Terminal Evaluation including revision of the indicators of Overall Goal in PDM ver.2.

In addition to JCC, the Project has held the Field Operation Review & Planning Meeting among the officers in Mzuzu ADD, research staff at Lunyangwa ARS, and Japanese experts. Internal Meeting between the Japanese experts and the staff members is also held every Monday morning.

## 2. Summary of Evaluation by Five Criteria

# (1) Relevance: High

- SLM techniques have been one of three pillars in the ASWAp which is the highest policy of the GoM.
- The Project's objectives to enhance capacity of MoAIWD staff to diffuse compost techniques has fulfilled the needs of LRCOs, extension agents as well as LF and FF for improvement of soil fertility and maize production.
- ➤ LF approach is appropriate to supplement extension agents.

## (2) Effectiveness: Medium

- The Project Purpose is expected to be achieved by the end of the Project.
- $\triangleright$  Achievements of outputs 1 $\sim$ 3 have contributed to achievement of the Project purpose.
- > Output 4 will be achieved by the end of the Project.

## (3) Efficiency: Medium

- $\triangleright$  Output 1 $\sim$ 3 have been almost achieved.
- > Output 4 will be achieved before the end of the Project if all the rest of activities are conducted as planned.
- ➤ There were delays of inputs from Japanese side.
- There is lack of budget of Malawian side.

## (4) Impact: Medium

## 1) Prospect of Achievement of the Overall Goal

Prospect of achievement of the Overall goal largely depends on the commitment of MoAIWD/districts to secure sufficient budget.

## 2)Impact on Policy

No particular impact on Policy was identified.

## 3)Impacts on Environment, Economic and Society

Economic impact was observed on farming by LFs since it has reduced the cost for chemical fertilizer.

## 4) Negative impacts

There was no negative impact identified at the time of the evaluation.

## (5) Sustainability: Medium

## 1) Policy Aspect

The GoM will continue to promote SLM technologies including compost making and application based on ASWAp.

## 2) Institutional Aspect

The extension system is well established in Malawi, in which compost techniques are expected to be disseminated from LRCO to LFs, FFs and ordinary farmers through extension agents.

## 3) Financial Aspect

Financial aspect is challenge for sustainability.

## 4) Ownership of C/P and Target Group

Ownership of LRCO, AEDO, and T/G (LF) is high. They showed their will to maintain compost making/application techniques obtained by the Project.

# 5) Technical Aspect

The techniques that the Project has transfer is not too high and utilized nationwide. The Project has developed compost making techniques with utilizing local material.

## 3. Factors Promoting Better Sustainability and Impact

## (1) Factors Concerning to Planning

The revision of PDM was effective to make all the indicators suitable to farmers' level. The Project implemented its activities more smoothly with clear goals after setting the improvement plans for agriculture and water management activities.

# (2) Factors Concerning to the Implementation Process

The First Project Review Meeting held in each district in September 2014 functioned to enhance understanding on the project objectives and roles of LFs.

# 4. Factors Inhibiting Better Sustainability and Impact

## (1) Factors Concerning to Planning:

After the Mid-term Review, revised PDM has become the common directions among the Project Management team (PMT).

## (2) Factors Concerning to the Implementation Process:

There is a still room to improve communication among the PMT.

#### 5. Conclusion

As a valuable project covering laboratory research services and extension services on the field, the team confirmed that the Project has so far been implemented in line with the revised PDM, and progressed to achieve the Outputs and the Project Purpose.

Attaining the soil test services in the northern region, all the rest of activities for dissemination of composting technique are expected to be implemented with the initiatives of Mzuzu ADD, which confirm sustainability of the Project.

Considering these factors, the Team concluded it was reasonable that the Project would be completed as scheduled

#### 6. Recommendations

# (1) Making action plans

In order to achieve the Project Purpose and the Overall Goal, it is recommended to materialize future activities as concrete as possible and make detailed action plans for (a) the remaining project period and (b) after the completion of the project, under the ownership of Malawian counterpart. Especially, dissemination and extension plans of the SLM techniques are essential. DAES is recommended to make the plans together with LRCD as soon as the "technical messages" is finalized.

## (2) Ensuring sustainability

## 1) For extension/dissemination activities

It is recommend that relevant Departments/Divisions should work together to secure the necessary budget by utilizing the fund of other Government programmes /projects related SLM and seek to collaborate with other stakeholders such as NGOs in order to expand the outputs created by the Project.

#### 2) For the activities of Lunyanguwa ARS and its substations

Regarding soil and compost analysis services, the Lunyangwa ARS has started collecting service charge from clients except small-holders via Extension Agents. As 80% of service charge is supposed to be utilized for the ARS's activities. However it is still uncertain whether it secures sufficient financial resource for future activities. Regarding compost trial activities, the budget has not yet been fully secured.

It is recommended to ensure necessary budget for continuation of above activities from the Government programmes /projects, as well as for above-mentioned extension/dissemination of the SLM techniques.

# (3) Output materials

## 1) Clarifying the technical materials to be made

It is recommended the Project clarifies the 4 points: (a) what kind of technical materials will be made, (b) for whom (Researchers, LRCD SMSs, Extension Agents and farmers), (c) when and (d) how many sets and set the schedule. It is hoped that these will proceed under the leadership of the Malawian counterpart.

2) Making the "technical messages on SLM techniques" for easy understanding by farmers

It should be noted that the "technical messages" be easily understandable for farmers, namely drawing with simple and impressive messages, so that farmers can understand their effectiveness and apply for them through their farming activities.

## (4) Strengthening ownership of Mzuzu ADD

The Mzuzu ADD at Mzuzu management unit level (both land resource conservation and extension divisions) is expected to take the lead in planning and implementing the Project activities and conducting monitoring to measure the progress, etc.

It is recommended that Mzuzu ADD at Mzuzu management unit level should enhance their ownership for the Project, so that the Overall Goal "appropriate SLM techniques are diffused to nationwide" can be achieved.

#### (5) Monitoring the recommendations

The progress of the implementations of the recommendations mentioned above should be monitored and reported on regular basis by making progress reports. The progress report should be made under the ownership of the Malawian side and submitted to the Director, LRCD for securing sustainable activities and extension / dissemination of the Project outcomes.

## (6) Revising the overall goal of PDM

The present indicators set for the Overall Goal are considered beyond the actual achievable level. Therefore it is recommended that the present indicators for the Overall Goal be replaced with newly proposed realistic ones, which are shown in attached Annex 9.

## 7. Lessons Learned

#### (1) Setting an Appropriate Project Period

In agricultural sector, the number of crop season might become a limiting factor for the achievement of the original target, in particular the projects like SLMP that new techniques are supposed to be developed through the field trials. Since the cropping season is only once a year and in 2014 the target areas were hit by the dry spell, a part of the Project activities is lagging behind the original schedule.

A lesson learnt through the Project is that, taking into account the number of crop season, sufficient technical cooperation period should be secured in formulating the project in agricultural sector.

#### (2) Allocation of human resources

The Project aims to implement on-farm and on-field soil/manure trials, and to disseminate techniques on compost making and application to extension agents and farmers. Since appropriate human resources were not available from Japanese side, it took long time for the Project to implement its activities smoothly at the early time of the project period. It is necessary to confirm a project framework after arranging human resources to some extent so as to commence and implement the Project without delay.