Summary of the Results of Evaluation Study

| I. Outline of the Project | | | | |
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| Country: Sierra Leone | | Project Title: Sustainable Rice Development Project in Sierra Leone | | |
| Issues/Sector: Agriculture | | Cooperation Scheme: Technical Cooperation Project | | |
| Division in Charge: Rural Development Department | | Total Cost: 460 million Yen | | |
| Period of Cooperation | October 1, 2010 – September 30, 2014 | Partner Country's Implementing Organization: Ministry of Agriculture, Forestry and Food Security (MAFFS) Supporting Organizations in Japan: N/A | | |

Related Cooperation: Technical Cooperation Project "Agricultural Development Project in Kambia" (2006-09)

1. Background of the Project

The Republic of Sierra Leone is one of the most rice-loving countries in sub-Saharan Africa, with an estimated annual per capita consumption of about 104kg, though its self-sufficiency rate does not reach 70%. Domestic rice production was plummeted to some 200,000 tons, the least in its history, in 2001 at the end of the Civil War, though since then it has steadily increased to attain about 640,000 tons by 2007. Of the estimated 640,000 rice farmers in the country (2004), more than 85% are smallholders with less than 1ha per household, and improvement of their productivity and income through the extension of appropriate cultivation techniques is considered a priority.

The District of Kambia on the border with the Republic of Guinea is performing below national average in terms of economic and social development indicators, such as cereal self-sufficiency and access to safe water. Of the population of 280,000, 80% are farmers. JICA has implemented the Agricultural Development Project in Kambia since 2006, and created Agricultural Technical Package as well as a manual for its implementation. The component for rice (Technical Package for Rice: TP-R) sets as its objective a productivity of 1.0~1.5 tons/ha, and outlines techniques for land preparation, seeding, soil fertility management, and post-harvest handling for both upland and lowland rice. Subsequent to the completion of this project, improving rice production and increasing farmers' income became among the priorities not only in Kambia but also in the entire nation. With this background, the Government of Sierra Leone requested a new technical cooperation project to revise the TP-R through additional experimentations so as to further improve rice productivity and to expand the TP-R among farmers in Kambia, in collaboration with the Rokupr Agricultural Research Center (RARC). The current Sustainable Rice Development Project (SRDP) was launched in October 2010, with the planned cooperation period of 4 years through September 2014.

2. Project Overview

(1) Overall Goal

- 1) To increase rice production in Kambia district.
- 2) To apply the Technical Package on Rice Production (TP-R) and extension method all over Sierra Leone.
- (2) Project Purpose

To establish rice production techniques and its extension method which are applicable throughout Sierra Leone.

(3) Outputs:

- 1) To revise the TP-R, which can realize higher yield and profit, through on-farm verification.
- 2) To extend TP-R to small-scale farmers through Farmers Based Organizations (FBOs) in Kambia district
- 3) To extend the contents of TP-R and an extension method to officials of MAFFS's district agricultural offices other than MAFFS-Kambia (MAFFS-K).
- (4) Inputs (by the end of September 2013)

Japanese Side:

Dispatch of Experts: 11 experts (93 M/M) Provision of Equipment: 400,000 US Dollars

Bearing of Local Operation Cost: 296,400 US Dollars

Training of Counterpart Personnel in Japan and the third country (Malawi & Egypt): 9

Sierra Leonean Side:

Counterpart personnel from MAFFS Headquarters (HQ), MAFFS-K, SLARI and RARC: 33

Land and Facilities: Offices at MAFFS-K, RARC and at MAFFS HQ
A piece of land to build a net house at RARC

II. Evaluation Team

| | < Japanese Team> | | |
|---------------|-----------------------------|------------|--|
| | Mr. Masanori Kurisu | Leader | Director, Arid and Semi-Arid Farming Area Division |
| | | | 2, Rural Development Department, Japan International |
| | | | Cooperation Agency (JICA) |
| | Ms. Maki Katoh | Evaluation | Special Advisor, Arid and Semi-Arid Farming Area |
| M 1 C | | Planning | Division 2, Rural Development Department, JICA |
| Members of | Ms. Keiko Itagaki | Evaluation | Consultant, |
| the | | & Analysis | International Development Associates, Ltd. |
| Evaluation | <rwandan team=""></rwandan> | | |
| Team | Mr. Bakarr J. Bangura | Leader | Deputy Director of Extension, Extension Division, |
| | | | Ministry of Agriculture, Forestry and Food Security |
| | | | (MAFFS) |
| | Mr. Umaru M. Sankoh | Member | District Agriculture Officer (DAO), MAFFS Kambia |
| | | | District Office (MAFFS-K) |
| | Mr. Joseph S. Bangura | Member | Assistant Director of Planning, Evaluation, |
| | | | Monitoring and Statistics Division, MAFFS |
| Period of Eva | luation: 6 – 27 January 201 | 14 | Type of Evaluation: Terminal Evaluation |

III. Results of Evaluation

1. Achievements

1-1. Achievement of Outputs

(1) Output 1: Most likely to be achieved

The Project has conducted on-farm verification in a number of locations with the view to add fertilizer and relevant cultivation techniques components to the TP-R created during the previous Technical Cooperation Project. Based on the soil analysis of the districts other than Kambia, it is anticipated that and the revised TP-R developed in Kambia will be applicable to the IVS rice fields in the rest of the country. The final recommendation for the fertilizer dosage will be determined following the completion of verifications being conducted in the current cropping season. A draft manual on TP-R for the extension workers with the tentative dosage of fertilizer application has already been prepared and is under review by the relevant stakeholders.

(2) Output 2: Highly likely to be achieved

The Project has conducted 13 sessions of training on TP-R for FBO farmers, attended by a cumulative total of 561 farmer-days. Twelve out of 16 techniques of the revised TP-R have been adopted by more than 50% of the sample farmers, while over 80% of the farmers are applying 7 techniques. Draft extension materials have been prepared and distributed to extension officers for comments. Similarly, a draft extension guides has been formulated and distributed to relevant staff of MAFFS HQ and MAFFS-K for feedback.

(3) Output 3: Most likely to be achieved

The Project is planning to conduct the training on TP-R in March-April 2014 for about 100 relevant officers from MAFFS districts agricultural offices nationwide.

1-2. Achievement of Project Purpose

Development of the revised TP-R is well underway, and it is most certain that MAFFS would accept and officially endorse the TP-R once the recommendation on fertilizer application is finalized. The nationwide training for the MAFFS officials from districts is scheduled to be conducted in March/April 2014, and its program includes the field visits to Kambia where the training participants can eye-witness the effectiveness of the revised TP-R. Hence, the Project purpose would most likely be attained by the end of the cooperation period.

2. Summary of Evaluation Results

2-1. Relevance: High

The Project is still well in line with the development plans of the Sierra Leonean government, and consistent with the ODA policies of the Japanese government. The introduction of improved rice cultivation techniques that bring yield increase properly addresses the needs of the beneficiary farmers, and the Project's human resource and capacity development approach is appropriate in view of various supports to the SCP from other donors that concentrate on infrastructures and input provisions.

2-2 Effectiveness: High

Through the training and field guidance by the Project, application of improved techniques and notable increase of yield have been reported, and a fairly large number of farmers have also started applying the learned techniques in their individual plots, which implies the effectiveness of the TP-R. The results of the soil analysis of the various samples from other districts indicated that the fertilizer recommendation derived from field verification in Kambia district could be applicable nationwide. The logical sequence between the outputs and Project purpose was also confirmed as appropriate.

2-3 Efficiency: High

Provision of inputs was generally adequate except for the limited funds from the Sierra Leonean government as well as minor issues related to Japanese experts' assignments and involvement of some counterpart personnel in the Project activities. The utilization of the readily available human resources together with the tangible outcomes of foregoing projects contributed to the efficient implementation of the Project.

2-4 Impacts: High positive impacts

A gradual increase of yield performances has been observed, and a wide dissemination of the revised TP-R may be possible through the existing cascade system of agricultural extension. Therefore, positive impacts are anticipated on the attainment of the overall goal, given that the necessary measures would continuously be taken for further dissemination and monitoring. Favorable and tangible impacts on the food security and farm income of the members of the target FBOs were reported. There are also indirect benefits such as better relationship among the FBO members, favorable recognition by local authorities, improved self-confidence, and so forth. No negative impact was observed or reported

2-5 Sustainability: Lower moderate

It is generally assumed that the policy supports in line with the SCP, NSADP and NRDS are likely to continue. However, the implementing agencies need to make effort to establish certain institutional arrangements for monitoring. The financial sustainability of implementing agencies would largely depend on future coordination of donor-assisted projects, while the organizational management capacity of target FBOs are still to be enhanced through continuous guidance. Further capacity development is needed to increase the technical competency of the agricultural officers to effectively teach the TP-R. The levels of adoption of the rice cultivation techniques are high among the target FBOs, but the input requirement (fertilizer) casts some doubts over their continuous adoption.

3. Factors that Promoted Realization of Effects

- 3-1 Factors Concerning the Planning N/A.
- 3-2 Factors Concerning the Implementation Process

Continuous involvement of counterpart personnel in key positions for implementation of the Project was secured, such as the promotion of the Monitoring and Evaluation Officer of MAFFS-K to the DAO. Also, the Project employed some retired extension officers as assistants, who could play a vital role thanks to their accumulated knowledge and experiences in the field. The continuity of involvement of experienced personnel who have already had rapport with target farmers as well as with the Project has contributed to the effective implementation of the Project.

4. Factors that Inhibited Realization of Effects

4-1 Factors Concerning the Planning

At the onset of the Project, it was understood that supports for extension activities would be provided under the SCP. However, due to the delay in signing of Memorandum of Understanding (MOU) between the MAFFS and the donor agency, these supports were not provided, and it resulted in increased financial requirements for the Project. Insufficient support from MAFFS in terms of mobility as well as incentives for the extension officers brought some negative effects on their motivations for and performances in the field activities

4-2 Factors Concerning the Implementation Process N/A.

5. Conclusion

The Team has confirmed that the expected outputs have largely been achieved without any critical problem or notable delay in the implementation of the Project. It was also assured that the Project would successfully achieve its purpose within the cooperation period.

6. Recommendations

6-1 Sustainable dissemination of the TP-R

While the Project will conduct a series of training sessions for agricultural officers from district offices of MAFFS prior to the completion of the Project, sustained efforts need to be made in order to assure continuous extension of the revised TP-R. It is thus recommended to MAFFS, SLARI and RARC to formulate concrete training and dissemination plans to ensure effective dissemination of TP-R to the farmers by the trained officers through cascade of current extension mechanism. The relevant authorities of MAFFS are requested to put their committed efforts to secure the funds to further dissemination of the TP-R so as to sustain the outcomes and impacts of the Project.

6-2 Efforts to ensure the implementation of the SCP

As the realization of the SCP Component 1 is a pre-condition for the revised TP-R to be effectively applied,

it is recommended to MAFFS to make steady steps towards sound implementation of the SCP. It is also essential for MAFFS to strengthen the mechanism to monitor and evaluate the SCP activities and outcomes, to analyze the inhibiting factors and countermeasures, as well as to draw out useful feedback and lessons learned to inform the subsequent activities.

6-3 Improvement of the quality of IVS development

The IVS development and rehabilitation of lowland farms are considered as basic requirements for better application of the revised TP-R, which requires good water management. However, some of the engineering works carried out by other donor agencies were found not to be of optimal quality, leaving inadequately prepared lands for the paddy fields that require finer-tuned land leveling. It is hence recommended that MAFFS better coordinate with the donors who sponsor the IVS development as well as with any other stakeholders who can improve the quality of work in the IVS development.

6-4 Development and/or update of rice cultivation techniques in other ecologies

There are five recognized ecologies for rice production in Sierra Leone, i.e. mangrove swamp, IVS, boliland, riverain and upland. The revised TP-R has been developed specifically for IVS, which is regarded as having the most potential for increased rice productivity in the NRDS. In view of future promotion of rice production in Sierra Leone as a whole as envisioned in the NRDS, however, it is also necessary for MAFFS, SLARI and RARC to develop and/or update the rice cultivation techniques to increase rice production in the ecologies other than IVS.

7. Lessons Learned

7-1 Alignment and coordination with other donors' interventions

There have been un-planned synergies as well as the cases of overlapped supports between the Project and other donor projects that also support the SCP. If any JICA project is to contribute to a comprehensive program that is to be implemented with various supports from other donor agencies, careful alignment and close coordination with interventions of other donor agencies should be made, not only at the initial stage of planning and designing, but throughout the course of implementation.