# **Terminal Evaluation**

## Asia

## I. Outline of the Project

· Country: Indonesia

Project title: Empowerment of Water Users Association Project

Issue/Sector : Agricultural, Rural Development

· Cooperation scheme: Technical Cooperation Project

Division in charge: Poverty reduction/Paddy Field Based Farming Area I, Rural Development Department

Total Cost: 340 million Yen

Period of Cooperation: 1 April 2004 – 31 March 2007

Partner Country's Implementing Organization:
 Directorate of Water Resource Management, Ministry of Public Works
 Water Resource Management Services, South Sulawesi Province
 Water Resource Management Services, Gowa District

- Supporting Organizations in Japan : Ministry of Agriculture, Forestry and Fisheries
- Related Cooperation
  JBIC "Bili-Bili Irrigation Project"

Development Study "The Study for Improvement of Irrigation System and Empowerment of Water Users Association for Enhancement of Turnover Program"

# 1-1 Background of the Project

To reduce financial burden, the Government of Indonesia is promoting the policy, which requires participation of water users association (hereinafter referred to as "WUA") in irrigation management and operation. However, most of WUAs are not sufficiently functioning for some reasons such as; they have been established without full reflection of farmers' interests or farmers have not realized the merit to pay irrigation service fee. Moreover, local governments are still not able to support WUAs activities substantially because of the shortage of skilled human resources and experiences though they have esponsibilities to do so.

To address these situations, the Government of Indonesia proposed the technical cooperation to establish the models of empowerment of WUAs through the technical guidance to the local governments and farmers in the model areas. In accordance with this proposal, JICA has been providing supports to the implementation of the Project since April 2004.

## 1-2 Project Overview

# (1) Overall Goal

In the area of the Bili-Bili Irrigation System, the proper operation and maintenance of irrigation facilities is introduced through empowerment of WUAs by Local Government assistance and collaboration between Local Government and WUAs.

## (2) Project Purpose

In the Model Area, the model for the proper operation and maintenance of the irrigation facilities is established through empowerment of WUAs by Local Government assistance and collaboration between Local Government and WUAs.

## (3) Outputs

- 1) WUAs in the Model Area are strengthened.
- 2) In the Model Area, Irrigation water is distributed efficiently to the farmland.
- 3) Irrigation facilities in the Model Area are adequately managed and improved based on local conditions.
- 4) In the Model Area, the farming system with efficient use of irrigation water is introduced.

5) The staff of the Local Government and other stakeholders related to empowerment of WUAs acquire the knowledge and experience to provide the proper assistance to WUAs.

# (4) Inputs

Japanese side:			
Long-term Experts	5	Equipment	0.26 million US dollars
Short-term Experts	6	Local Opration Cost	17 million yen
Trainees Received	10		
Indonesian Side:			
Counterparts		43 Local Cost	0.13 million US dollars

Land and Facilities

## **II. Evaluation Team**

# **Members of the Evaluation Team:**

DOI Kunihiro	Team Leader: Executive Technical Advisor, Rural Development Department, JICA
YUASA Kazuhiro	Empowerment of WUA: Design Division, Rural Development Bureau, Ministry of Agriculture, Forestry and Fisheries
YUASA Keiichiro	Planning Evaluation: Poverty Reduction / Paddy Field Based Farming Area Team I, Rural Development Department, JICA
ITAGAKI Keiko	PCM Evaluation: Researcher, Social Development Department, Global Link Management, Inc.
Saiful Rochdyanto	Faculty of Agricultural Technology, Gadjah Mada University
Dwi Puryanto	Community Development Division, Directorate of Water Resources Management, Ministry of Public Works
Yopie Lumoindong	Faculty of Agriculture and Forestry, Hasanuddin University
Muchlish Amat	Chief of Planning and Programming Division, PSDA South Sulawesi

# **Period of Evaluation:**

13 November 2006 – 1 December 2006

# Type of Evaluation:

**Terminal Evaluation** 

# III. Results of Evaluation

# 3-1 Achievement of the Project

# (1) Achievement of Outputs

It was confirmed that the Project has been implemented as per the plan stipulated in the R/D, M/M, PDM and PO without notable delays or unprecedented difficulties, thus that the Project would come up with most of its expected outputs by the end of the Project period.

## Output 1: "WUAs in the Model Area are strengthened."

The participation rates to General Meeting of WUAs exceeded 80% among the management committee members, however, the target participation rates among the farmer members still remains unmet, i.e. 23 to 46% on average, despite of the fact that some WUAs were able to mobilize more than 50% of members to attend the General Meeting. The factors attributing to these variations may include the timing and venue of the meeting, composition of the members in terms of location of their residences and WUA affiliation, the members' familiarity to the new systems introduced such as letter of attorney, and so forth. The collection rate of water user's fee was 14% at the time of the commencement of the Project, which, with slight fluctuation, has increased and already reached to 36% in the dry season FY 2006.

## Output 2: "In the Model Area, irrigation water is distributed efficiently to the farmland."

As the results of the Project activities, the water distribution rate in the tertiary canals in the dry season paddy cropping increased from 52% in the FY 2005 to 63% in the FY 2006.

# Output 3: "Irrigation facilities in the Model Area are adequately managed and improved based on local conditions."

The WUAs in the Model Area have maintained about 50% of the tertiary canal length by the end of September 2006. Based on the progress records and final accomplishment of the previous years, it is anticipated that the rate will increase to achieve or even exceed the target rate of 80% by the end of the Project, as the maintenance work will further be continued for the rainy season cropping. The rate of the quaternary blocks where the quaternary canal development has been commenced is 72%, and the 41% of total length of the quaternary canals have completed until the dry season of FY 2006.

## Output 4: "In the Model Area, the farming system with efficient use of irrigation water is introduced."

The dry season paddy yield has been increasing from 3.5 ton per ha. on average in FY 2004 to 4.4 ton in FY 2005, then further to 4.7 ton in FY 2006. Although the average yield has not yet reached the target of 5.0 ton for the entire samples, steady and conspicuous increase has been observed in most of the sample plots, while the yields over 6.0 tons are reported in some of the sample plots. The rate of cropping area based on the schedule made by WUA still remains as low as 59% on average, which is attributed to the insufficient understanding for the part of farmers in terms of different water distribution grouping of their farm plots, to which the Project is already planning to take countermeasures in coming cropping season, i.e. clarification of water distribution/cropping groupings per quaternary blocks with identification of individual farm plots by means of information dissemination together with pictorial maps of these groupings.

# Output 5: "The staffs of the local government and other stakeholders related to empowerment of WUAs acquire the knowledge and experience to provide the proper assistance to WUAs."

A total of 173 personnel related to the empowerment of WUAs at central, provincial, district and community levels have already been trained. The training materials were officially endorsed in June 2006 as the module to be used for the training of relevant government personnel all over the country. The results of the follow-up evaluation on the status of application of learning from training sessions by the participants are found to be satisfactory. As for the levels of understanding of the training participants, another measurement is scheduled to be conducted in December 2006.

# (2) Prospects of Achieving the Project Purpose

The rate of dry season irrigated paddy cultivation area has been increased from 52% in FY 2004 to 74% in FY 2006, which exceeded the expected target of 70% of the Model Area. As for the model reference for empowerment of WUAs, the Project is currently working on its drafting, covering the different themes such as organizational management of WUAs, water management and irrigation facilities, farm management and irrigated crop cultivation, training and other general issues related to the activities of WUAs, which would be finalized and published by the end of the Project. Therefore, it is agreed that the project purpose would successfully be achieved by the end of the Project.

## 3-2 Summary of Evaluation Results

## (1) Relevance

The Project is considered to be highly relevant to the policies and programs of the Indonesian government as the Water Resource Law in 2004 which stresses the needs of empowering the WUAs for proper maintenance and operation has further been confirmed in the recent Government Regulation. The Project is also in line with the Japanese ODA policy to Indonesia, which emphasize the poverty reduction through rural development. It is confirmed that the Project has properly addressed to the needs of the target beneficiaries, i.e. farmers in the Model Area.

# (2) Effectiveness

The WUAs in the Model Area are capable of holding regular meeting of the management committee members, formulating

annual activity plans of the WUAs, keeping proper records, collecting water users' fees in a systematic manner, and trying to develop further their organizations. As their activities are widely recognized by the local government institutions and gradually known to the other farmers in the vicinity, their performances are considered as the model for the proper operation and maintenance of the irrigation facilities. Therefore, the effectiveness of the Project is considered to be high.

## (3) Efficiency

Inputs by both Japanese and Indonesian sides were mostly adequate and sufficient in terms of the volume as well as of the quality to produce the intended outputs. The Project has also coordinated with some of the other projects in Bili-Bili irrigation area related to the empowerment of WUAs in the process of its operations. Thus, the efficiency of the Project is considered to be high.

## (4) Impacts

Positive impacts were observed in terms of the increased yields; which is assumed to have brought about the increase of the farm income as well. Farmers are also contented with increased occasions to contact with government officials of the relevant institutions. Changes in behaviors and self-confidence of the participating farmers particularly among the management committee members of WUAs are also to be noted.

### (5) Sustainability

## (1) Policy and Institutional Sustainability

The necessity of empowerment of WUAs for proper operation and maintenance of irrigation facilities is quite consistent with the current policy; therefore the policy support from the government would continuously be secured. However, further coordination is needed among the institutions of central, provincial and district governments as well as with the functions of multi-stakeholder forums so as to consolidate their efforts for effective support to empower the WUAs at the community level.

### (2) Organizational and Financial Sustainability

Each institution involved in the Project has its own mandatory role to play in empowerment of WUAs, which has duly been included in its respective plans, programs and activities with regular budget, which, however, is inevitably of smaller scale than the Project inputs. As to the organizational point of view, it should be admitted that there has not yet been any collaborative program among the relevant institutions at working level, although the importance of such collaboration has generally been recognized. Thus, organizational and financial sustainability is not sufficiently secured at this time.

# (3) Technical Sustainability

WUAs could acquire knowledge and technical skills needed for their activities and farmers could learn cropping technologies through Project activities. Counterpart personnel also gained skills and experiences which they are confident to make use of in their duties in the future. The model reference that is being compiled by the Project would officially be endorsed and disseminated to the relevant institutions by the end of the Project, which would continuously be utilized as technical reference for the activities of empowering the WUAs in the field. Hence, the technical sustainability is considered to have reached to a satisfactory degree.

# 3-3 Factors that Promoted Realization of Effects

# (1) Factors concerning the Planning

The empowerment of the WUAs involves a wide range of activities from the upstream area to downstream of irrigation scheme. The project had been designed to maximize the involvement of all those relevant to the activities of WUAs in its operational mechanism. This approach is considered to be highly practical and the comprehensive efforts from different institutions could contribute to the effective implementation of the Project.

# (2) Factors concerning the Implementation Process

The project has hired as its own staff the personnel of an NGO which has been in operation in a part of the Model Area. Their knowledge on and already established rapport with the target communities, including human network, have considerably been facilitating for the process of Project implementation. As these NGO staffs are directly involved in the Project as a part of the team, expertise of field operations has been shared among all project personnel including those from the government sectors.

## 3-4 Factors that Impeded Realization of Effects

- (1) Factors concerning the Planning N/A
- (2) Factors concerning the Implementation Process N/A

## 3-5 Conclusion

The Project has successfully been implemented without any major or critical problem and will mostly achieve its outputs by the

end of the technical cooperation period. Prospect of achieving the Project purpose is evaluated high with continuous efforts that are quite likely to be made for the rest of the project period.

### 3-6 Recommendations

# 3-6-1 Recommendations for the remaining period of the Project

- (1) As for the activities which are yet to achieve the target output indicators, it is essential to analyze the hampering factors and take possible countermeasures, while continuously monitoring the indicators. Possible efforts to address to the unmet target should be incorporated as much as possible in the Project activities to be implemented for the rest of the Project period.
- (2) Considering the limited time left for the Project, it is necessary to accelerate the process of compilation of the model reference documents to make them practical and applicable, reflecting the real experiences of the Project activities

## 3-6-2 Recommendations for the future (after the completion of the Project)

- (1) In order to disseminate the outcomes of the Project in the form of the model reference to the other areas in Bili-Bili irrigation area, it is necessary for the relevant institutions of the Indonesian Government to formulate the practical and feasible plan, which clearly stipulates the roles of each institutions, concrete methods and modality of implementation, time frame, sources of funds, contents of activities and so forth.
- (2) As the empowerment of WUAs requires comprehensive approach to address various technical and social aspects, it is essential to consolidate the efforts to be made by different stakeholders for overall capacity development of WUAs. Therefore, further enhancement of coordination mechanism is necessary to establish a platform for the functional and sustainable coordination among all those who are relevant to the activities of WUAs.
- (3) During the Evaluation Study, it has been pointed out b that water distribution to the tertiary canal levels is not yet sufficient or stable. It is thus required to enhance the water distribution efficiency at the higher levels, i.e. secondary and primary canals, headworks, as well as at the water resources, for which further capacity building of the WUAs and relevant institutions would be necessary.
- (4) The Project aimed primarily at piloting the process of empowerment of WUAs in the Model Area, however, it also aimed at providing useful references for any effort to empower WUAs to be made by relevant institutions not only in South Sulawesi Province but in the entire country. Therefore, the central government is expected to take measures to widely disseminate the outcomes of the Project through various channels, so that they would be applied in the other areas of the country with possible modification based on the local situations.
- (5) As the offices responsible for empowerment of WUAs are not allotted with the sufficient number of field staff who can directly guide all WUAs in their jurisdiction, existence of the mediators between the community and government functionaries may be of great importance in the mobilizing the farmers for further empowerment of WUAs. It is desirable to incorporate such functions of field facilitation in the measures to be taken to organize and guide the WUAs especially at the initial stage, thus to promote linkages with existing entities at the local levels.

## 3-7 Lessons Learned

- (1) In case of the projects with activity components to be implemented directly at the community levels, there may be various aspects to be taken into account, including language barriers, cultural norms, traditional values, gender situations, behavioral patterns, and so forth. For such activity components, special operational modalities should be built which are not limited to the existing government functionaries, for example, with involvement of local NGOs and other entities that have experiences in and rapport to the target communities.
- (2) The existence of proper records and accurate data on project activities of the project is quite helpful to precisely grasp the progress and achievement of the project. Though it may require extra time and efforts of the project personnel, clarification of accurate and detailed data in terms not only of project indicators but also of relevant activities would provide firm base for progress monitoring and evaluation, thus contribute to the sound management of development projects.