Simplified Ex-Post Evaluation for Technical Cooperation Project

Evaluator, Affiliation	Shiro OTOMO (Ernst & Young Sustainability Co., Ltd.)	Duration of Evaluation Study
Project Name	The Empowerment of Water Users Associations Project in the Republic of Indonesia	October, 2011 - January, 2012

I Project Outline

Country Name	Republic of Indonesia
Project Period	April, 2004 – March, 2007
Executing Agency	Directorate of Water Resource Management, Ministry of Public Works Sector of Water Resource Management Services, South Sulawesi Province Sector of Water Resource Management Services, Gowa Regency
Cooperation Agency in Japan	Ministry of Agriculture, Forestry and Fisheries
Total Cost	283 million yen
Related Projects (if any)	<Loaned Project> Bili-Bili Irrigation Project, <Technical Cooperation of Development Planning> The Study for Improvement of Irrigation System and Empowerment of Water Users Association for Enhancement of Turnover Program
Overall Goal	As the spreading effects of the project attainments across surrounding area, the water users associations (WUAs) are empowered through the assistance from and the collaboration with the local governments, and a proper operation and maintenance of the irrigation facilities is introduced in the "Bili-Bili Irrigation System Area".
Project Objective(s)	WUAs are empowered through the assistance from and the collaboration with the local governments, and a model of proper operation and maintenance of the irrigation facilities is established in the project's model area in the Gowa Regency.
Output[s]	In the model area: (1) WUAs are strengthened. (2) Irrigation water is efficiently distributed to farmland. (3) Irrigation facilities are adequately managed and improved according to the local circumstances. (4) Farming with efficient use of irrigation water is introduced. (5) The local governments' staff and other stakeholders related to the empowerment of WUAs acquire knowledge and experience to provide proper assistance to WUAs.

Inputs (Japanese Side)		Inputs (Indonesian side)	
Experts	5 for long term, 7 for short term	Staff allocated	36
Equipments	29 million yen	Equipments	-
Local Cost	27 million yen	Local Cost	132 thousand US dollar
Trainees Received	10	Land etc provided	Office spaces
Others	-	Others	-

II Result of the Evaluation

Summary of the evaluation

The project has been highly relevant with Indonesian Development Plan and Japanese ODA's Policy. Furthermore, in Indonesia, there has been a need to empower WUAs for maintaining and managing the end facilities of irrigation systems in an appropriate way; thus, this project is highly relevant.

This project helped strengthen the organization of WUAs in the model area through the improvements such as water user's fee collection. In the farmland in the model area, the development of irrigation facilities was promoted, and the maintenance and management of the facilities were improved. It promoted more efficient use of irrigation water for farming. As a result, paddy cultivation in dry season was gradually spread and increased the yield. The methods practiced in this project were reflected in the teaching materials, and trainings were conducted for local government staffs and managers of WUAs. They have acquired knowledge and experience necessary for leading WUAs. The model reference developed through the project was approved by provincial government in 2007 and distributed to in and out of the model area. In addition, it has been utilized for the training of WUA members and has been contributed to the empowerment of WUAs. According to the executing agency, irrigation techniques has been diffused with farmers' better understanding of water management, thereby increasing yield amounts and their earnings, and consequently their livelihood has been improved as well. In this way, the project is considered to have positive indirect effects.

Both the project period and project costs were within the plan, and therefore the efficiency of the project is high.

As for the sustainability of the project, the government ordinance which specifies the responsibility of central government and local government in operation and maintenance of irrigation facilities was enacted in 2007, and the institutions which promote the empowerment of WUAs has been established. In accordance with the ordinance, the government of South Sulawesi Province set up the department which provides technical assistance for regency government, and similarly the regency government established the department which is in charge of empowerment of WUAs. Furthermore, efforts have been made in each organization: development of human resource, such as training of trainers, has been conducted by central and provincial governments, and technical guidance to WUAs has been implemented by regency governments. According to the executing agency, the budget allocation to related organization has been secured. Furthermore, the percentage of the dry season irrigated paddy cultivation area has been increased even after the end of the project, and its effects on a technical level has been maintained.

In light of the above, this project is evaluated to be highly satisfactory.

1 Relevance

(1) Relevance with the Development Plan of Indonesia

The Water Resource Law in 2004 sets out the requirement for the empowerment of WUAs for the appropriate maintenance and management of the end facilities of irrigation systems, and the Government Ordinance No. 20 of 2006 includes specific measures. The Five-Year Strategic Plan of the Ministry of Public Works (2005-2009) designates the development and empowerment of WUAs as a key issue.

(2) Relevance with the Development Needs of Indonesia

The Strategic Plan of the Water Resources Bureau of South Sulawesi Province and the Development Plan of Gowa Regency also mention the maintenance and management of irrigation systems by WUAs as a priority issue. The areas covered by this project were also equipped with irrigation facilities that had not been put into full and effective use. Farmers desired to grow crops in the dry season if irrigation water could be supplied.

(3) Relevance with Japan's ODA Policy

Japans' policy on assistance to Indonesia sets out the "construction of a democratic and fair society" as a key area. It points out as specific assistance the "development of agricultural and fishery communities to create job opportunities and improve their income and welfare for poverty reduction." The eastern part of Indonesia, which includes South Sulawesi Province, is also designated by JICA as key development region.

This project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

2 Effectiveness / Impact

(1) Achievement of Project Outputs and Project Objective(s)

This project improved the collection of water user's fee and a rate of participation to WUA's general meetings, and consequently enhanced the organization of WUAs in the model area. The percentage of the tertiary canals regularly maintained by the cooperative work of the WUAs was 68% at the time of the ex-post evaluation, and did not reach the target value of 80%. However, it helped WUAs better manage the distribution of irrigation water, achieving the more efficient use of irrigation water for farming in the model area. Furthermore, farming with efficient use of irrigation water was introduced in the model area: the dry season paddy yield was increased to 6.0t/ha in some farmlands, whereas the target amount was 5.0t/ha.

The teaching materials and training curriculums that were developed through this project were used by local government employees and other people concerned to acquire the knowledge and experience they needed to lead WUAs. The conclusion is, therefore, that the project has largely achieved its objectives.

The proportion of the farmland to be devoted to planting rice in the dry season using irrigation water achieved the target in the model area. Based on the experience gained in this project, model references were produced, which were then distributed as reference guide materials to the central, provincial and regency governments, as well as WUAs within the model area, their Federations, other relevant organizations in the neighboring regions, and NGOs. It can therefore be said that the project served to have irrigation facilities operated and managed in an appropriate manner. The conclusion is, therefore, that the project has largely achieved its objectives.

(2) Achievement of Overall Goal, Intended and Unintended Impacts

In Bili-Bili Irrigation area, 185 WUAs, out of 303, have started activities according to the reference model produced by the project: the ratio has achieved 61% in 2010 and exceeded the target value of 10%, which was set at the time of planning. The model reference employed in the project was approved by provincial government in 2007, and distributed to in and out of the model area. Training based on the model reference has been conducted, and utilized for the enhancement of WUAs.

According to the executing agency, the project improved farmers' understanding of irrigation management and promoted activities of WUA's. Furthermore, farmers' better understanding of water management, together with increased cooperation relationship among farmers, has contributed to diffuse irrigation techniques, thereby increasing yield amounts and their earnings, and consequently their livelihood has been improved as well. (In concrete terms, average annual income of farmers within the model area increased 26,000,000 Indonesian Rupiah (IDR) (nominal amount) in 2010 from 18,700,000 IDR in 2004. Also, even outside of the model area, their average annual income has increased 22,000,000 IDR (nominal amount) in 2010 from 18,000,000 IDR in 2004. (In terms of real amount of income adjusted by the consumer price index, their average annual incomes have decreased 14% and 24% within the model area and outside of the model area respectively, growth rate of the income within the model area surpassed outside of the model area by about 10%.))

In the light of above, this project has largely achieved its objectives, therefore its effectiveness is high.

3 Efficiency

(1) Outputs

As stated in (1) of "Effectiveness / Impact," this project has produced the expected outputs.

The expert dispatched for the project states that inputs including the staff, equipment and operating expenses were managed appropriately. At the time of the terminal evaluation, an analysis reached the conclusion that "appropriate inputs were provided both in quality and quantity, and they were used in an effective manner" and that "the project secured sufficient efficiency," with no specific problems found in terms of the production of the outputs.

(2) Project Period of Cooperation

The project, which had been designed to be completed in thirty-six months, actually finished in thirty-six months, as planned. (100% as planned period).

(3) Project Cost of Cooperation

The project costs, which had been estimated to be 340 million yen, actually totaled 283 million yen, lower than planned (82% as planned cost).

The inputs are appropriate for producing outputs and achieving the project objective, therefore efficiency of the project is high.

4 Sustainability

(1) Related Policy towards the Project

The National Medium-Term Development Plan (2010-2014) includes the development of infrastructure, including irrigation, as a development target. The plan mentions the development of infrastructure, including irrigation facilities, as a specific measure for "Food Security," one of the national priorities. The National and Regional Spatial Plan for the Sulawesi Region points out, as a direction for development, helping the region maintain the functions it performs as a food production center in the country, and especially to preserve its farmland devoted to planting rice using irrigation water.

In 2007, a guideline for irrigation system and government ordinance which distinguishes authority and responsibility of central, provincial and regency government has been enacted by the central government. Based on them, rules and regulations, which define roles and responsibilities of WUA's for daily maintenance activities and those of provincial and regency governments for supporting WUAs and minor rehabilitation of channels, were established by local governments, such as South Sulawesi Province and Gowa Regency. Therefore, the policies which enhance the organization of WUAs have been maintained.

(2) Structural Aspects of Operation Management

In accordance with the rules and regulations above, responsibility of each organization in maintenance of irrigation facilities has been clarified. It is provided that the provincial government is responsible for technical support, and accordingly South Sulawesi Province government has set up the department which provides technical support to regency governments and employed staff for the empowerment of WUAs. On the other hand, it is provided that regency government is responsible for the implementation of activities for the empowerment of WUAs, and the department set under Agricultural Service Office has been constantly engaged in those activities. Therefore, the implementation systems for empowerment of WUAs both at provincial government level and regency government level have been maintained.

(3) Technical Aspects of Operation Maintenance

The activities for the empowerment of WUAs have taken advantages of the model reference, which was developed by provincial staff in the project, and training method and training modules. Accordingly, the farmers employed the improved farming techniques and employees of WUAs have acquired techniques and knowledge necessary for water management. As for the approach to trainings, each organization has fulfilled a role in accordance with the stipulated rules and regulations: regency governments provide technical support to WUAs, and central and provincial governments provide human development training such as training of trainers.

(4) Financial Aspects of Operation Maintenance

According to the executing agency, budget allocation to Sector of Water Resource Management Services of South Sulawesi Province, Sector of Water Resource Management Services of each regency government, and Agricultural Service Office of Gowa Regency, which are the related organization for the management of irrigation facilities, have been on the increase. WUAs have met all the expenses of their activities, as well as water management expenses of the tertiary for which WUA is responsible as stated by the above mentioned regulations, with dues from the members, and no particular problem has been observed so far.

(5) Continuity of Effectiveness and Impact

The percentage of the dry season irrigated paddy cultivation area has been increased even after the project: it has increased 86% in 2008, and 91% in 2010, from 74% in 2006 at the end of the project. The model reference produced by the project has become widely used in and out of model area, and be adjusted depending on the current roles of WUAs. Therefore, the sustainability of the project is high.

As outlined above, no major problems have been observed in the policy background, the structural, technical, financial aspects of the executing agency, therefore, sustainability of the project effect is high.