Summary of the Results of Evaluation Study

1. Outline of the Project

Country: Malawi		Project Title: The Development of Smallholder Irrigation Scheme Technical Cooperation Project
Issues/Sector: Rural Development		Cooperation Scheme: Technical Cooperation Project
Division in Charge: JICA Malawi Office		Total Cost：350 million Yen
Period of Cooperation	23 March 2006 – 22 March 2009	Partner Country's Implementing Organization: Department of Irrigation, Ministry of Irrigation and Water Development Department of Agricultural Extension Services, Ministry of Agriculture and Food Security
		Supporting Organizations in Japan:

Related Cooperation:
Development Study "Study on Capacity Building and Development of Irrigation Scheme"

1-1 Background of the Project

The agriculture sector of Malawi plays a critical role in sustainable development and poverty reduction of the country, accounting for 38% of GDP and 80% of total work force. The production of the sector is, however, not sufficient to achieve food security due to the fragile farming environment. More than 70% of Malawian farmers are the smallholders who practice rain-fed farming. The Government of Malawi stresses the importance of irrigation development and has been making efforts to increase irrigated areas, but smallholders irrigation schemes had still been stagnant because of the scarce human and financial resources as well as the lack of appropriate technologies at both government and farmers levels. To cope up with this circumstance, the Government of Japan assisted the Government of Malawi to conduct the "*Study on Capacity Building and Development for Smallholder Irrigation Schemes*" from the year 2002 to 2005, aiming to develop a *"package*" of low-cost technologies for self-help irrigation development and to strengthen the frontline extension officers' technical and administrative capacity to promote irrigation development. With the outcomes of the Study, the Government of Malawi through the Department of Irrigation (DoI) and the Department of Agricultural Extension Services (DAES) has launched the "*Development of Smallholder Irrigation Schemes Technical Cooperation Project*" (hereinafter referred to as "the Project") to establishing a nationwide system for further disseminating the cost-effective irrigation farming technologies, since March 2006, in cooperation with JICA.

1-2 Project Overview

(1) Overall Goal

Small-scale irrigation farming promoted, disseminated and practiced in appropriate areas in Malawi in order to increase food security.

(2) Project Purpose

Nation wide extension system for comprehensive small-scale irrigation farming established.

(3) Output:

1. Extension system for small-scale irrigation development package established at all potential EPAs.
2. Adaptation of small-scale irrigation farming technologies and experiences systematized.

(4) Inputs

Japanese Side:

Long-term Experts	2	Equipment	20.9 million Japanese Yen
Short-term Experts	3	Local Operation Cost	44.4 million Malawi Kwacha
Trainees Received	12		
Malawian Side:			
Counterpart personnel	3		
Trainers from ADD, DADO and EPAs	23		
Land and Facilities			

2. Evaluation Team

Members of the Evaluation Team	Team Leader	K. MIZUTANI	Resident Representative, JICA Malawi Office
	Small-scale Irrigation	H. HOSHI	Director, Arid and Semi-Arid Farming Area Division, Rural Development Department, JICA HQ
	Evaluation	K. ITAGAKI	Researcher, Social Development Department, Global Link Management, Inc.
	Planning Management	H. SONOYAMA	Project Formulation Advisor, JICA Malawi Office

Period of Evaluation	27 September 2008 – 12 October 2008	Type of Evaluation: Terminal Evaluation

3. Results of Evaluation

3-1. Summary of Evaluation by Five Criteria

3-1-1 Relevance

(1) Relevance to the policies of the Government of Malawi

The Project is consistent with the Malawi Vision 2020, the overall long-term development plan of the Government of Malawi, as well as with the Malawi Growth and Development Strategy (MGDS), both of which emphasizes the importance of the sustainable growth and food security. Promotion of irrigation farming is emphasized as a priority area in the Agricultural Development Programme (ADP), while the importance of the participation of the beneficiaries in the development and maintenance of irrigation facilities is clearly stipulated in the National Irrigation Policy and Development Strategy (NIPDS).

(2) Consistency with the Japanese Aid Policy

The Japanese ODA policy that is currently under formalization focuses on three major priority concerns, i.e. sustainable economic growth, social development and infrastructure development. Agricultural and rural development is recognized as a contributing sector to the sustainable economic growth. The Country Program of JICA for Malawi focuses on three programs, namely, irrigation promotion program, food security program, and rural livelihood diversification program, and this Project is included in the irrigation promotion program as a vital part of it.

(3) Relevance of the Project design

The Project applied an approach to focus on the capacity development through extensive training and monitoring, while minimizing the physical inputs to address the challenge of nationwide dissemination of small-scale irrigation. Considering the budgetary and human resource constraints of the implementing agencies, the design of the Project is considered to be quite appropriate.

(4) Relevance to the needs of target beneficiaries

The smallholder households have been suffering from the chronic food shortage in the beginning of the rainy season in general. With introduction of the irrigation facilities, the food shortage problems can be solved or greatly minimized, and they can afford the food throughout the year. Thus, the Project is evaluated as very much relevant to the needs of the beneficiaries.

3-1-2 Effectiveness

(1) Achievement of the Project purpose

The Project has trained 339 extension officers at 84 EPAs in the areas where the small-scale irrigation potential is high, thus the total number of the trained officers has reached to 491 at 122 EPAs. Those trained extension officers have already developed 784 sites by February 2008. However, it is necessary to confirm the continuity of operation of those developed schemes, for which further strengthening of the monitoring system is essential. Also, the examination of the agricultural components of the small-scale irrigation development package has not yet been conducted, and the rate of dissemination is much lower. Thus, it is evaluated that the Project purpose has only partially been achieved.

(2) Contribution of outputs to the achievement of the Project purpose

Both of the outputs are to contribute to the achievement of the Project purpose as a whole. However, the systematization of agricultural components i.e. a part of the output 2, as well as the improvement of the monitoring system as a part of the output 1, have not yet been accomplished to the expected degree, thus their contribution to the achievement of the Project purpose is evaluated as partial.

3-1-3 Efficiency

(1) Japanese Experts

Both long-term and short-term experts have properly carried out their expected roles and worked closely in harmony with the counterpart personnel. However, the dispatch of the short-term experts in the field of farm management was cancelled, due to the unprecedented budgetary problem of JICA, resulting in the postponement of the examination of the agricultural components of the small-scale irrigation development package.

(2) Equipment and machinery

The equipment and machinery required for the Project activities and technical transfer have duly been provided and most of the equipment provided has fully been utilized and kept in good conditions.

(3) Training of counterpart personnel in Japan

The counterpart training was adequately conducted. The learning from those training has been helpful in carrying out not only the activities of the Project but also their regular duties.

(4) Assignment of counterpart personnel

As for the full-time counterpart, the absence of the counterpart personnel from DAES in the initial year had created some difficulties in the startup of the Project. On the other hand, most of the trainers who are the part-time counterpart personnel had participated in the foregoing JICA cooperation thus have already had knowledge and experience of the small-scale irrigation development. The involvement of those already trained personnel in the Project considerably contributed to the efficient implementation of the Project.

3-1-4 Impacts

(1) Impact on overall goal level

It was confirmed that the introduction of the irrigation facilities would contribute to minimize the food insecurity, and to bring about additional income in the smallholder households. Therefore, the prospect of achieving the overall goal is assumed to be high, once the Project purpose is properly attained. It is anticipated that through the established extension system, larger number of small-scale irrigation sites would be developed throughout the country.

(2) Positive Impacts

There have been a lot of changes in livelihood of the beneficiary, such that they are no longer suffering from the food shortage; they can obtain additional cash income out of the sale of the crops with which housing, clothing, ownership of household appliances and so forth are improved. Some of them are able now to afford livestock rearing or application of agricultural inputs. There are also other ripple effects to the neighboring farmers who have also become interested; in some cases, technical dissemination through farmer-to-farmer extension was also observed.

(3) Negative Impacts

There has not been any negative impact of the Project reported or observed at the time of the terminal evaluation.

3-1-5 Sustainability

(1) Policy and Institutional Sustainability

As the enhancement of food security is the prime focus of the development policies, together with the policy direction on promotion of irrigation farming in agriculture sector and emphasis on the small-scale irrigation development under the irrigation development strategy, sustainability in terms of development policy seems to be secured. Agricultural extension system is quite likely to be sustained even under the on-going decentralization of service; hence, the institutional sustainability of the Project is also assessed as high.

(2) Organizational and Financial Sustainability

As the activities of the Project have been carried out in line with the existing organizational structures of the implementing agencies within the scopes of their mandates, thus it is anticipated that the activities will be continued as a part of their regular duties. At the beneficiaries' level, the irrigation groups have been organized and properly managed their irrigation facilities with strong sense of ownership. Therefore, the organizational and financial sustainability would adequately be secured, once the monitoring mechanism on the developed irrigation schemes is duly integrated in the existing agricultural extension system.

(3) Technical Sustainability

With the periodic review and in-house experience sharing upon regular meetings in the extension offices, technical transfer and dissemination among the relevant officers would likely be continued. At the level of the beneficiary farmers, adoption of the technologies on construction and maintenance of irrigation facilities is observed to be very high, while the level of adoption of the irrigated farming technologies is much lower. Thus, technical sustainability is assessed as secured only for the irrigation component of the package, while the technologies under the agricultural components may not be sustainable.

3-3 Factors that Promoted Realization of Effects

(1) Factors concerning the Planning N/A.

(2) Factors Concerning the Implementation Process

The Project included the formulation of the action plans of extension officers as part of the training and conducted close monitoring of their achievement. It also awarded outstanding extension officers based on their performance of irrigation development. This supervision seems to have enhanced the motivation and encouraged the efforts of the extension officers. Another factor to be noted is the team operation among the trainers upon conducts of training activities, which provide them with chances to share their experiences and learn from each other. Such collaboration has been beneficial to the implementation process of the Project.

3-4 Factors that Inhibited Realization of Effects

(1) Factors concerning the Planning

The Project was to conduct a series of training activities within the dry season at various scattered places all over the country; at the same time it is to systematize the small-scale irrigation development package by reflecting the feedback from the actual. Compared with the limited number of project personnel and cooperation period, the task of nationwide extension of small-scale irrigation was vast. This issue of human resource allocation should thus be considered as a potentially hampering factor for the Project implementation.

(2) Factors Concerning the Implementation Process

The Project utilized the existing mechanism of agricultural extension for the dissemination of small-scale irrigation development package. In the current setting, however, the extension officers are not equipped with adequate means of transportation for their services, which negatively affected the Project, as the extension officers felt that they could have developed more irrigation sites if proper mobility had been provided.

3-5 Conclusion

There were some adverse effects caused by the change of the planned inputs and some parts of the expected outputs have not yet achieved, so that the Project would not be able to fully achieve the Project purpose within the scheduled cooperation period. Thus it is necessary to examine the possibility of extending the cooperation period and/or providing additional inputs for the due attainment of the Project purpose.

3-6 Recommendations

3-6-1 Recommendations to attain the Project purpose

(1) Examination of the agricultural component of the small-scale irrigation development package

In order to systematize the small-scale irrigation farming technologies, further examination of the agricultural component is needed, particularly on the actual undertakings by the farmers, the applicability of the certain technologies to be included in the package and on the possible constraints to the application by the farmers. Additional training to reinforce the application of those technologies at the farmers' level as well as the compilation of training and extension materials is also considered essential.

(2) Selection of the monitoring data and training on data collection

It is considered to be essential to continuously gather and accumulate the data on the small-scale irrigation schemes in usable forms. Therefore it is recommended to select the data items to be continuously collected, to compile the selected data from those information so far accumulated by the Project and to hand over the data to the respective implementing

agencies. It is desirable if the Project would provide the implementing agencies with any format for future collection of those selected data, by simplifying the ones currently used by the Project and train the respective stakeholders on the accurate collection of those selected data.

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

(1) Further dissemination and integration of the outcomes of the Project in the future programs

Compared with the other larger irrigation scheme, the impact of the small-scale irrigation development package disseminated by the Project is large enough for considerably small or even nominal costs of inputs. This accomplishment of the Project should be known to the implementing agencies, to the decision makers in particular, so that the outcomes of the Project would widely be disseminated and adequately reflected in the formulation of future plans and programs.

(2) Official inclusion of the small-scale irrigation development package in the agricultural extension mechanism

It is recommended to officially include the package as the designated components in the instruction from ADD to DADOs and EPAs for their formulation of annual work plans. Once the official channel is established with application of the monitoring formats to be modified by the Project, it would also become easier to collect the monitoring information, as they will be obligatory part of the periodical reporting.

(3) Revision of the PDM for the ex-post evaluation

It was noted in the course of evaluation study that some of the indicators might slightly be misleading and seem to be difficult to obtain the data to confirm the achievement. Since the ex-post evaluation is scheduled three years after the completion of the Project, it is recommended that the PDM should be revised so as to avoid any controversy regarding the target of the Project. The proposed revision of PDM is attached as the appendix 8 of the Joint Evaluation Report.

3-7 Lessons Learned

(1) Definition of the project purpose and selection of appropriate indicators

It was found out during this evaluation study that there was not a concrete definition of the nationwide extension system that was the very purpose of the Project, as well as of the small-scale irrigation development package. The absence of the clear definitions also influenced the selection of objectively verifiable indicators. Therefore, it is essential to clearly define the project purpose and important terms used in the project design at the time of planning, as well as to discuss among the project personnel to foster the common understanding on them upon the commencement of the project.

(2) Significance of the simple and low-cost technologies

By limiting the level of technologies to those “simple, quick, cheep and safe” ones, the Project could disseminate small-scale irrigation technologies through the ordinary channel of agricultural extension, and large number of schemes could be developed and operated by farmers themselves, bringing about a large impact to the farmers in the field. However, there is often a tendency among the high-level decision makers to make light of such technology, as they are not as conspicuous and “good looking” as the advanced technologies. It is therefore necessary for the implementers to consciously advocate the importance of developing such appropriate technologies and their impacts in an attractive manner so as to generate interests among a wide range of relevant stakeholders.