

Summary of the Results of Evaluation Study

1. Outline of the Project		
Country: Cambodia		Project Title: The Technical Service Center for Irrigation System Project Phase-2
Issues/Sector: Rural Development		Cooperation Scheme: Technical Cooperation Project
Division in Charge: Rural Development Department		Total Cost : Three hundred and sixty Million JPY
Period of Cooperation	10 January 2006 – 9 July 2009	Partner Country’s Implementing Organization: The Ministry of Water and Resources and Meteorology (MOWRAM)
		Supporting Organizations in Japan: Ministry of Agriculture, Forestry and Fisheries
Related Cooperation: Technical Cooperation Project “The Technical Service Center for Irrigation System Project”		
<p>1-1 Background of the Project</p> <p>Agriculture is the prime industry of the Kingdom of Cambodia. Agricultural production contributes to approximately 35% of the country’s GDP, and approximately 75% of the national population relies on agriculture for their living in 2004. Despite abundant farmland and water resources, agricultural productivity of the country has rather been low mainly due to deficient irrigation systems, which is one of the essential development issues of the country.</p> <p>Royal Government of Cambodia (RGC) had requested the Government of Japan (GOJ) for a technical cooperation that aims at technical transfer on rehabilitation of existing irrigation systems such as survey, planning, design, construction, operation and maintenance. In response to the request, JICA conducted the 5-year project, namely Technical Service Center for Irrigation System, until January 9, 2006.</p> <p>The RGC made new request to GOJ for the next phase of the project that aims at strengthening of technical capacity of MOWRAM through establishing capacity development system in irrigation sector. In response to the request, JICA sent the preliminary study team to confirm the need for assistance and to discuss the details of the Project. The Record of Discussions on the Project was signed on January 4, 2006. The Project started in January 10, 2006 and will continue for three and a half-year period until July 9, 2009.</p>		
<p>1-2 Project Overview</p> <p>(1) Overall Goal</p> <p>Livelihoods of the farmers’ households is improved by stabilizing their agricultural productivity through efficient water resource management in the irrigation areas conducted by the trained engineers and technicians in MOWRAM and PDWRAM.</p> <p>(2) Project Purpose</p> <p>1. The technical capacity of MOWRAM and PDWRAM is improved.</p> <p>2. The farmers who have participated in the Project activities at the Pilot Sites (PS) are able to practice water management in terminal canals.</p> <p>(3) Output:</p>		

<p>1. The following outputs are expected to be achieved at TSC:</p> <p>1-1. Establish the training system</p> <p>1-2. Set up the technical manual</p> <p>1-3. Manage the technical information.</p> <p>2. The technical capacity of the engineers and technicians in MOWRAM and PDWRAM is well trained through the trainings at TSC and on-the-job-training (OJT) at Model Site (MS) and Pilot Sites (PS) .</p> <p>3. With the technical assistance of TSC, the following outputs are expected to be achieved at the Pilot Sites.</p> <p>3-1 The trained engineers and technicians in PDWRAM construct the terminal canals, which make it possible for farmers to easily access irrigation water.</p> <p>3-2 Farmers start to conduct water management activities at the terminal canals in cooperation with PDWRAM.</p> <p>(4) Inputs</p> <p>Japanese Side:</p> <table><tr><td>Long-term Experts</td><td>3</td><td>Equipment</td><td>237, 119.65 US Dollars</td></tr><tr><td>Short-term Experts</td><td>14</td><td>Local Operation Cost</td><td>721,017.76 US Dollars</td></tr><tr><td>Trainees Received</td><td>16</td><td></td><td></td></tr></table> <p>Cambodian Side:</p> <table><tr><td>Counterpart personnel</td><td>50</td><td></td><td></td></tr><tr><td>Operational Fund</td><td>266,837.98 US Dollars</td><td></td><td></td></tr><tr><td>Land and Facilities</td><td></td><td></td><td></td></tr></table>				Long-term Experts	3	Equipment	237, 119.65 US Dollars	Short-term Experts	14	Local Operation Cost	721,017.76 US Dollars	Trainees Received	16			Counterpart personnel	50			Operational Fund	266,837.98 US Dollars			Land and Facilities			
Long-term Experts	3	Equipment	237, 119.65 US Dollars																								
Short-term Experts	14	Local Operation Cost	721,017.76 US Dollars																								
Trainees Received	16																										
Counterpart personnel	50																										
Operational Fund	266,837.98 US Dollars																										
Land and Facilities																											
2. Evaluation Team																											
Members of the Evaluation Team	Team Leader	R. NISHIMAKI	Senior Advisor, Rural Development Department, JICA Technical Official, Overseas Land Improvement Cooperation Office, Rural Development Bureau, Ministry of Agriculture, Forestry and Fisheries Researcher, Social Development Department, Global Link Management, Inc. Advisor, Paddy Field Based Farming Area Division II, Paddy Field Based Area, Rural Development Department, JICA																								
	Irrigation Technology	H. KUNIHIRO																									
	Evaluation & Analysis	K. ITAGAKI																									
	Planning Management	K. NAKASONE																									
Period of Evaluation	16 November 2008 – 5 December 2008		Type of Evaluation:Terminal Evaluation																								
3. Results of Evaluation																											
3-1. Summary of Evaluation by Five Criteria																											
3-1-1 Relevance																											
The Relevance of the Project is evaluated as high.																											
(1) Relevance to the policies of the RGC																											
The Project is still consistent with the policies of RGC, as there has not been any major change in the Rectangular Strategy in 2004 and National Strategic Development Plan (2006-2010) and the Strategic Development Plan (SDP) of MOWRAM (2006-2010) .																											

(2) Consistency with the Japanese Aid Policy

Agricultural and rural development to improve the agricultural productivity are considered as a vital cooperation strategy in Japanese ODA program, indicated in the country assistance policy for Cambodia. The Country Program of JICA for Cambodia also emphasizes the “Agriculture and Rural Development” with a cooperation program on “the improvement of irrigated agriculture.” Thus the Project is considered to be quite consistent with the Japanese aid policies.

(3) Relevance of the Project design

The Project applied an approach to enhance the capacity of both the government officers in irrigation sector, such as engineers and technician of MOWRAM and PDWRAM, and the beneficiary farmers. Considering the existing constraints of the irrigation development in Cambodia, where technical workforce of the government are limited both in number and the levels of technical capacities, the design of the Project is considered to be quite appropriate.

(4) Relevance to the needs of target beneficiaries

The participants of the training from PDWRAM appreciate and are benefited from the training by the TSC, as indicated in the evaluation of training courses. At the Pilot Sites (PS) , The interviewed farmers reported that the problems of water distribution at terminal facilities has been improved, and that some positive effects on the yield, cropping, and expansion of irrigated area are being realized. Thus, the Project is evaluated as very appropriate response to the needs of the beneficiaries.

3-1-2 Effectiveness

The effectiveness of the Project is evaluated as high.

(1) Achievement of the Project purpose

The participants of the training courses highly appreciate the technical training by TSC. The levels of achievement of the curriculum target and the satisfaction are high on average, indicating the usefulness of the training for the participants. At the PS, the farmers started organized effort for water management at the terminal level. As these activities are scheduled to continue, the Project purpose is likely to be achieved to a large extent by the end of the cooperation period.

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

The logical sequence between the outputs and Project purpose is appropriate, and all of the three outputs have significantly contributed to achievement of the project purpose.

3-1-3 Efficiency

The efficiency of the Project is evaluated as high.

(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.

(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 in the future.

(4) Inputs from the Cambodian side

A sufficient number of counterpart personnel both from MOWRAM and PDWRAM were assigned to the Project. The RGC has made considerable efforts to allocate its own budget to the Project, not only from MOWRAM budget, but also from the Counterpart Fund, despite of the delay in actual disbursement of the fund. Provision of the office space with office equipment, water and electricity facilities, fuel, some stationery, and so forth is also contributed to the smooth implementation of the Project activities.

3-1-4 Impacts

The Impact of the Project is evaluated as high.

(1) Impact on overall goal level

As the training system would be established at TSC, MOWRAM and PDWRAM staff would likely be provided with training opportunities. The trained PDWRAM staff would take initiatives in the irrigation development to realize the efficient water resource management, which would lead to the stabilization of agricultural production. Therefore, positive impacts are anticipated on the overall goal, yet under the condition if necessary inputs for training activities as well as for irrigation development would continuously be provided by RGC.

(2) Positive Impacts

In the Kandal Stung Model Site (MS) , double cropping in the wet season with improved rice variety has been widely practiced since the improvement of the terminal canals. The interviewed farmers reported to the Team that the yield has also increased. In the Takeo PS, double cropping in the dry season is being tried, and the double cropping in wet season with IR variety is on trial in the Pursat PS by the voluntary initiatives of the farmers. It is also pointed out that the construction of the farm roads have contributed to the improved access to and from the farmland, benefiting the farmers in terms of daily mobility, transport of agro-inputs and produce.

(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

The sustainability of the Project is evaluated as partially attained, but with remaining challenges and concerns.

(1) Policy and Institutional Sustainability

Since the water resources and irrigation sector are given high priority in the current policy of RGC, the policy support from the government would continuously be secured for the coming years. The institutional framework is being formulated with the recent enactment of the Laws related to water resources sector. Therefore, the policy and institutional sustainability of the Project is considered as high.

(2) Organizational and Financial Sustainability

TSC has already become a department of MOWRAM and the Road Map for institutionalization of TSC has been prepared with concrete steps, targets, budgetary and human resource requirements. With these initiatives by MOWRAM, the organizational sustainability is evaluated as high. However, the limited budget allocation for TSC and PDWRAM by RGC would unavoidably lead to the scale down of the training and field activities. Thus, the financial sustainability is not sufficiently secured at this

time, although the continuity of some training activities is expected in a limited scale.

(3) Technical Sustainability

It is assessed that the technical sustainability is secured only in terms of continuous training activities. In order to ensure regular technical update and upgrading, wider dissemination and practical application, further technical supports seem to be necessary. It is also to be noted that TSC has mainly dealt with the terminal irrigation facilities and structures; however, considering the expected roles of TSC in the future, the scope of technical aspects to be covered by TSC may need to be broadened.

3-2 Factors that Promoted Realization of Effects

(1) Factors concerning the Planning N/A.

(2) Factors Concerning the Implementation Process

TSC has officially become a department of the MOWRAM in December 2006. The fact that TSC acquired an official position in the MOWRAM's organizational structure has greatly contributed to the proper implementation of the Project activities. It was also beneficial to improve the ownership of RGC, as exemplified in the allocation of the MOWRAM budget to TSC, even on a small scale.

3-3 Factors that Inhibited Realization of Effects

(1) Factors concerning the Planning

As for PS activities, the delay in securing budget for canal construction by RGC has affected implementation schedule of the actual construction work as well as in the water management activities to be born by the farmers, although the Project could manage to proceed with PS activities, by slightly modifying the original plan.

(2) Factors Concerning the Implementation Process

The TSC counterpart personnel who served as trainers in the training activities reported that the participants were not always appropriate to the training subjects in some cases. In addition, the levels of knowledge and experiences of the participants varied to a considerable degree, which created some difficulties for effective teaching for the part of the trainers.

3-4 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, thus, it is concluded that the Project will be terminated as stipulated in the R/D.

3-5 Recommendations

3-5-1 Recommendations for the remaining period of the Project

(1) Prompt disbursement of the operational fund by RGC

The RGC has allocated considerable amount of budget, however, the actual disbursement of the Counterpart Fund has tended to be delayed. As there will still be many activities for the remaining seven months of the Project period, it is strongly recommended to the relevant offices of RGC to make maximum efforts for prompt and smooth disbursement of the Counterpart Fund for the Project.

(2) Follow-up on the application of technical learning by the training participants from PDWRAM

In the 3 PDWRAM where PS activities were conducted, application of the technical leanings by these counterpart personnel was confirmed through the actual construction and rehabilitation of

terminal canals. However, the application of technical learning by the training participants from other PDWRAM has not yet been confirmed. It is therefore necessary by the end of the Project to organize any activity to grasp the degree of utilization of technical learning by the training participants.

(3) Wrap-up workshop on the achievement of the Project

It is worthy for the Project to wrap up the results and processes of Project activities through the review and discussion among the counterpart personnel and to organize a forum to present the Project achievements, at least internally among MOWRAM staff, and if possible to a wider range of audiences, such as the relevant government offices and donor agencies.

3-5-2 Recommendations for the future (after the completion of the Project)

(1) Efforts for realization of the Road Map for the institutionalization of TSC

In order to realize the Road Map for the institutionalization of TSC, it is strongly requested to not only to MOWRAM, but also to other relevant agencies of RGC to take every possible measure to secure the human and financial resources for TSC. It may also be worthy to consider the application of some support incentive systems, for which the detailed coordination and early preparation for necessary procedures may be required.

(2) Human resource development of TSC personnel

In pursuit of any of the future roles and functions envisioned in the aforementioned Road Map, it is essential to further strengthen the technical capacity of TSC personnel. For TSC staff, it is important to acquire more academic knowledge and technical experiences through opportunities for advanced studies and training in Cambodia and/or overseas. It is thus recommended to both RGC and GOJ to continue efforts for human resource development of TSC personnel.

(3) Utilization on the experiences and outputs of the Project by MOWRAM

The Project will compile technical manuals on technologies related to water resources, irrigation and meteorology, integrating not only the literature review but also the first hand experiences derived from PS activities. It is therefore recommended to MOWRAM to ensure the thorough dissemination and maximum utilization of these Project outputs.

3-6 Lessons Learned

(1) Continuity of the guidance by short-term experts

In the Project, there were a small number of the long-term experts and the larger number of short-term experts. Some counterpart personnel felt difficulties to fully catch up with highly technical guidance by short term experts, especially when different short-term experts were dispatched to guide them in the similar field. Therefore, it may be drawn as a lesson for the technical cooperation project with similar expert dispatch plan that the continuity of the service of same short-term experts is effective and efficient.

(2) Support to the efforts by implementing agencies in terms of the public relations

Throughout the period of its implementation, the Project has supported TSC in publicizing its roles and functions to other institutions through various donor meetings and by receiving many visitors such as students, journalists, NGOs and so forth. Such support may be helpful to broaden the possibility of additional support to the implementing agencies, thus to contribute to the organizational and financial sustainability of the cooperation projects.