| I. Outline of the Project | | | |
|---|---|--|--|
| Country: People's Republic of Bangladesh | Project Title : Capacity Development Project for | | |
| | Participatory Water Resources Management through | | |
| | Integrated Rural Development | | |
| Issue/Sector: Agricultural/ Rural Development-Rural | Cooperation scheme : Technical Cooperation | | |
| Development | | | |
| Division in charge : JICA Bangladesh Office | Total cost : 397 million Yen | | |
| Period of (R/D):October 16, 2012 to October 15, | Partner Country's Implementing Organization : Local | | |
| Cooperation 2017 (5 years) | Government Engineering Department (LGED) | | |
| (After Extension): October 16, 2012 to | Supporting Organizations in Japan : Rural Development | | |
| May 31, 2018 (5 years and 7.5 months) | Bureau, Ministry of agriculture, Forestry and Fisheries | | |
| | (MAFF) | | |
| | Related Cooperation : Small Scale Water Resources | | |
| | Development Project, Small Scale Water Resources | | |
| | Development Project (Phase 2) | | |

1. Background of the Project

The Executing Agency of the SSWRD Project is the Local Government Engineering Department (LGED) and the Integrated Water Resources Management Unit (IWRMU) had been set up in charge of this Project. However, the technical officials who are familiar with the SSWRD Project are not sufficient since LGED had been conducted mainly with rural road construction. Also, since the project management of SSWRD Project has been largely depending on expertise of project consultants employed by the project, it did not lead to the technical capacity improvement of LGED officials. In response to the request from the GOB to tackle with these challenges, JICA and LGED is implementing the Technical Cooperation Project named as "Capacity Development Project for Participatory Water Resources Management through Integrated Rural Development" since the middle of October 2012.

Before the Project completion scheduled in May 2018, JICA and LGED conduct a Joint Terminal Evaluation Study in September 2017 with the objectives of verifying and analyzing the achievements of Project Purpose and Outputs, the implementation process, evaluating the Project in terms of five evaluation criteria and compiling a set of recommendations and lessons learned based on the study results.

2. Project Overview

The Project aims to strengthen four (4) areas, i.e. (i) Capacity of LGED to manage SSWRD Project, (ii) Capacity of LGED to plan and implement SSWRD subproject integrated with rural road and market development, (iii) Capacity of Union level stakeholders to support WMCA, (iv) Capacity of LGED to conduct O&M of facilities, and, subsequently, to establish the Participatory Small Scale Water Resource Management Model based on the four (4) Outputs.

(1) Overall Goal

Participatory Small Scale Water Resources Management (hereinafter referred to as "PSSWRM") Model is widely implemented toward poverty reduction

(2) Project Purpose

PSSWRM Model and its implementation mechanism are established

(3) Outputs

- Output1: Capacity of LGED to manage project cycle of PSSWRD is strengthened.
- Output2: Capacity of LGED to plan and implement SSWRD subprojects integrated with other rural infrastructure (such as rural roads, rural market, etc.) is strengthened.
- Output3: Capacity of stakeholder at union level (union chairman, secretary, staffs from local agencies of the central government, etc.) to support WMCA in planning and maintaining SSWRD subprojects is strengthened.
- Output4: Capacity of WMCA to maintain facilities for SSWRD is strengthened.
- Output5: PSSWRM Model is established based on 1) 4) outputs as an applicable model for other than model areas.

(4) Inputs

| Japanese side : Total cos | st 397 million Yen | | |
|---------------------------|--------------------|---|-----------------|
| Experts | 10 Experts | Equipment | 11.4million Yen |
| Local cost | 175.2 million Yen | Trainees | 24 officers |
| Lao side : Total cost | 89.12 million Yen | | |
| Counterparts (C/Ps) | 64 C/Ps | Office environment for JICA Expert Team office | |
| Local Cost | 89.12 million Yen* | *With the exchange rate of 1.360620 BDT/JPY (JICA Monthly exchange rate as of September 2017) | |

II. Evaluation Team

| II. Evaluation feam | | | | | |
|----------------------------|-------------------------------------|-------------------------|---|--|--|
| Members of | Japanese side | | | | |
| Evaluation | Mr. Hitoshi ARA | Leader | Senior Representative, JICA Bangladesh Office | | |
| Team | Mr. Ryuichi KATSUKI | Cooperation Planning | Program Advisor, JICA Bangladesh Office | | |
| | Mr. Akira OGASAWARA | Evaluation and Analysis | Consultant, VSOC Co., Ltd. | | |
| | Bangladeshi Side | | | | |
| | Mr. A K M Sahadat Hossain | Leader | Superintending Engineer (O&M), LGED | | |
| | Mr. Hasan Hahmud | Member | Executive Engineer (P&D), LGED | | |
| | Mr. Md. Mizanur Rahman | Member | Executive Engineer (M&E), LGED | | |
| Period of | f Santambar 0 to Santambar 20, 2017 | | | | |
| | f September 9 to September 29, 2017 | | Type of Evaluation : Terminal Evaluation | | |
| Evaluation | | | | | |
| III. Results of Evaluation | | | | | |

3.1. Measurement of Results

(1) The Project Purpose

- The Project Purpose has been achieved to a certain extent based on the observation that the PSSWRM Model has been established, while capacity development activities such as training program for LGED officials and the strategy are not implemented as they are scheduled.

- (Indicator 1) Data is not obtained as of the Terminal Evaluation. The training program on project management of SSWRD project including the concept of the Model will be started from September to October 2017.

(2) **Output** 1

- Output 1 has been achieved to a certain extent as of the Terminal Evaluation Study according to the fulfillment of the indicators and implemented activities. For the remaining period, training program on SSWRD project management needs to be conducted and training results need to be appropriately analyzed.
- (Indicator 1-1) The set of new guidelines were approved and endorsed at working group meeting on September 7, 2017. After that, LGED will start official procedures for approval of the guidelines.
- (Indicator 1-2) Data is not obtained as of the Terminal Evaluation. The training program on SSWRD project management will be conducted during the remaining implementation period.
- (Indicator 1-3) Data is not obtained as of the Terminal Evaluation. The training program on SSWRD project management will be conducted during the remaining implementation period.
- (Indicator 1-4) A total of 59 out of 61 district offices (97%) in 2015/16 updated the IWRM-MIS database and 62 out of 60 district offices (97%) in 2016/17 updated the database.
- (Indicator 1-5) The monitoring system for completed subproject utilizing IWRM-MIS is already included in the Monitoring and Evaluation Guideline officially approved in September 2017.

(3) Output 2

- Output 2 has been achieved to a certain extent as of the Terminal Evaluation Study according to the fulfilment of the indicators and implemented activities. For the remaining period, the synergistic effect study on integrated approach in subproject sites needs to be conducted and study results need to be analysed.
- However, so as to attain the higher-level achievement of Output 2, a few unimplemented/ uncompleted activities need to be completed within the Project implementation period.
- (Indicator 2-1) Survey on synergistic effects at Bajail Barochala will be conducted in September 2017 during remaining Project implementation period. Since construction works are delayed due to unseasonable weather conditions, it would take more time to exert synergistic effects in pilot sites.
- (Indicator 2-2) According the results of questionnaire survey, interview and site visits, most of LGED officials who are engaged with pilot sites at the central and local levels well understand the concept and possible synergistic effects of integrated development between SSWRD infrastructure and agri-market access infrastructure.

(4) **Output 3**

- Output 3 has been almost achieved according to the fulfillment of the indicators and summary of implemented activities as of the Terminal Evaluation study. However, LGED needs to continue to monitor Union level stakeholders' activities to support WMCAs by visiting subproject pilot sites more frequently.
- (Indicator 3-1) Training material for stakeholders at union level which outlines SSWRD project and possible support for WMCA by UDCC is developed: "Training Handbook on Basic Management for Small Scale Water Resources Development (in Bengali)" and "WMCA Support Guide for Union Level Stakeholder (in Bengali)".

- (Indicator 3-2) A total of 34 union stakeholders out of 36 (99.4%) who participated in "Workshop on Possible Support for WMCA by Union Level Stakeholders obtained 60% or more scores in the post test in the workshop even though post test scores from one Union was not conducted.

(5) **Output 4**

- Output 4 has been achieved to a certain extent according to the fulfillment of the indicators and implemented activities as of the Terminal Evaluation.
- However, so as to attain the higher-level achievement of Output 4, a few unimplemented/ uncompleted activities need to be completed within the Project implementation period.
- (Indicator 4-1) Training material for WMCA committee members for O&M of SSWRD facilities is developed: "Training Handbook on Basic Management for Small Scale Water Resources Development (in Bengali)" and "Easy Guideline on Operation & Maintenance of Water Resources Structure (in Bengali).
- (Indicator 4-2) A total of 32 union stakeholders out of 36 (88.9%) who participated in "Workshop on Possible Support for WMCA by Union Level Stakeholders" obtained 60% or more scores in the post test in the workshop.
- (Indicator 4-3) Data is not obtained as of the Terminal Evaluation since the construction work has not completed yet at the three pilot sites (Korial Beel, Chamta and Bajail Barochala).

(6) Output 5

- Output 5 has been achieved to a certain extent according to the fulfillment of the indicators and summary of implemented activities and achievement of other Outputs as of the Terminal Evaluation Study as described above. For the remaining implementation period, Strategy and Operational Plan of IWRM Unit including a sustainable dissemination plan of the Model needs to be developed.
- (Indicator 5-1) The PSSWRM Model elements to deserve as a model have been concretized are (i) assuring more effective project management through i) new set of guidelines for SSWRD infrastructure Project which guide effective and efficient way on project management including "In-depth/Village-wise" Approach, ii) Training Program on SSWRD Project Management and iii) Using Upgraded MIS, (ii) Integrated Development Approach between SSWRD infrastructure and Rural Road/Market Development, iii) More proactive involvement of Union stakeholders including UDCC to support WMCA's O&M activity, and iv) Enhance functioning of O&M by WMCA through i) In-depth/Village-wise Approach and ii) Interactive Approach.
- (Indicator 5-2) Workshop on PSSWRM Model is held on September 11, 2017, where the officials in other LGED Units and lined ministries shared the concept of the Model and welcomed it.

3.2. Summary of Evaluation Results

(1) Relevance

- The relevance of the Project is **high** since the government policy/strategies of Bangladesh and Japan regarding the project support area (SSWRD) has not been changed since the project was designed and since the development needs of SSWRD by the Bangladeshi side still remains high within the country.
- The 7th Five Year Plan (FY2016-FY2020) indicates "focus on issues related to increasing local production, solving energy problems, reducing poverty through undertaking programmes on agriculture", Agriculture is one of the "Water management will emphasize the sustained and balanced use of water resources for irrigation, drinking water and water transport." Therefore, the Project focusing on rural development as well as agricultural development through balanced use of water resources is consistent with the development strategy of the country.
- "Japan's Country Assistance Program for Bangladesh" puts priority (priority areas) in "Accelerating inclusive economic growth" with the program indicates (4) four priority areas; (i) human development, (ii) rural development, (iii) administrative capacity improvement, and (iv) disaster management/ climate change. Furthermore, JICA Country Analytical Work obviously indicates that "accelerating economic growth" and "overcoming social vulnerability" as priority areas of support for Bangladesh.
- The Project is consistent with the needs of the country under the current circumstance since the Project is intended to utilize surface water rather than ground water, implementing SSWRD projects.

(2) Effectiveness

- The effectiveness of the Project is **medium** as of the Terminal Evaluation Study because of some unimplemented activities regarding training program implementation even though capacity of project stakeholders such as LGED, union stakeholders and WMCAs has been developed to a certain extent and the PSSWRM Model has been developed.
- However, the effectiveness of the Project is judged to be assured at a higher level of achievement at the termination of the Project through implementing the training program successfully and conducting analysis of synergetic effects in pilot sites.
- Achievement levels of Outputs 1 and 2 are medium but not sufficient yet since activities regarding training program implementation have not been developed (Output 1) and civil works in pilot sites have not been completed (Output 2) while those of Outputs 3 and 4 are sufficient. For Output 5, it should be sufficient to meet the conditions to achieve. Because the set of new guidelines is almost finalized through the achievement of other outputs although the training program on SSWRD project management is not yet implemented. In addition, the project approach was clear and effective as each output such as capacity development for the stakeholders related to SSWRD projects (Output 1&2), Union stakeholders (Output3), WMCA members

(Output4) was clearly connected to achieve output5 which is establishment of PSSWRM Model and implementation of the SSWRD projects based on this model through clarifying each role of those stakeholders.

(3) Efficiency

- The overall efficiency of the Project is **medium** in spite of delays in selection of pilot sites and construction works during the implementation up to now, which lowers the efficiency.
- With regards to quality and quantity of inputs, inputs from the Bangladeshi and Japanese sides such as allocation of C/Ps, allocation of Japanese experts, provided equipment, overseas training, offices and facilities are appropriate.
- Moreover, national staff in MIS development, institutional development and water resources development have appropriately complemented day-to-day technical project activities.
- With regards to timing, there is substantial delay observed in implementing project activities such as pilot site subproject development process, etc. because of unavoidable circumstances, which lowered the efficiency. Consequently, it was determined to extend the implementation period for seven (7) and half month until May 2018 in March 2017, to compensate for delays in project activities.

(4) Impact

- It is expected that the Overall Goal of the Project can be achieved in three (3) to five (5) years after the termination of the Project based on the observation of the three (3) indicators as described below.
- (Indicator 1) The new set of guidelines are to be authorized and to be utilized to the JICA-2 and GOB-funded SSWRD Projects which will have 244 (JICA-2) and 200 (GOB) subprojects respectively.
- (Indicator 2) "Integrated" approach will be implemented in at least nine (9) subprojects implemented by JICA-2.
- (Indicator 3) WMCA scores (average score of 135 WMCAs for the past three (3) years), through guiding monitoring activities for WMCA done by LGED officials as instructed in the O&M guideline, gathered in the IWRM-MIS indicate that the average scores in 2014/15 are 39 points, 49 in 2015/16 and 57 in 2016/17, which increased the average by 46% for two (2) years from 2014/15 to 2016/17.
- Based on the outcomes of the Project, it is expected that the PSSWRM Model characterized as "integrated approach", "in-depth/village-wise approach" and "interactive approach" will be followed to other SSWRD projects.
- As of the Terminal Evaluation, "Integrated Approach", which is one of the prominent components of the Model, has been followed to JICA-2, the incoming JICA ODA loan project where the ODA project plans as many as nine (9) integrated approach-adopted flagship subprojects.
- No negative impact brought about by the Project.

(5) Sustainability

- Overall sustainability of the Project is expected to be relatively high.
- Institutional sustainability is relatively high since the establishment of PSSWRM Model is highly consistent with the Bangladeshi development plans/strategies
- Organizational sustainability is relatively high. LGED is the only institution that is in charge of implementing SSWRD projects all over the country so as to reduce poverty in rural areas. Even though after the termination of the Project, LGED will surely continue SSWRD activities by implementing similar kinds of projects.
- Allocation of LGED budget and maintenance budget for IWRM Unit, which obviously indicates their budget allocation is increasing annually. Therefore, financial sustainability of LGED is highly expected.
- Technical sustainability is medium. LGED engineers at the central and local levels accepted project outcomes such as guidelines, new concepts and capacity development of Union stakeholders and WMCAs.
- A series of guidelines developed will certainly be disseminated to other projects, in particular, JICA 2 and some GoB-funded new projects. Based on the outcomes of the Project, "Integrated Approach" will be followed to JICA-2 in which the ODA project plans as many as nine (9) integrated approach-adopted flagship subprojects.
- At the time of the Terminal Evaluation, it is expected that WMCAs in pilot sites will collect O&M fees as they are well aware of the importance. It would be necessary to take a certain period of time for the WMCAs to implement O&M activities on their own.

3.3. Factors that promoted realization of effects

(1) Factors concerning to Planning

- Nil

- (2) Factors concerning to the Implementation Process
- Development of guidelines through working group organized by stakeholders

3.4. Factors that impeded realization of effects

- (1) Factors concerning to Planning
- Construction of subprojects in pilot sites as demonstration purposes in the planning stage
- (2) Factors concerning to the Implementation Process
- Delay in construction work in pilot sites

3.5. Conclusion

- Despite delay in subproject set-ups including construction works in pilot sites due to unavoidable circumstances, the Project has been implemented with high relevance, medium effectiveness, medium efficiency, medium impact, and relatively high sustainability.
- Moreover, in the latter half of the Project implementation, the PSSWRM Model and new relevant approaches were successfully introduced and established with developing new guidelines. In addition, IWRM-MIS was also revised by the Project intervention. Monitoring and implementation structure of SSWRD projects is ensured based on those achievements even though the Project was confronted with unavoidable circumstances.
- To ensure the achievement of the Project Purpose, it is necessary to conduct the training program on SSWRD project management and to analyze training results by the time of termination of the Project. LGED certainly continues SSWRD projects across the country, which is expected to be relatively high sustainability.
- Accordingly, the Joint Terminal Evaluation Team concluded that it is appropriate to terminate the Project in May 2018 as scheduled.

3.6. Recommendations

(1) Recommendations after the Termination of the Project

(i) Implementation of Training Program on Project Management.

- Under this project, the training will be conducted approximately 17times for 737 LGED officials from Headquarter level to Upazila Office level. And as mentioned in (iii) (iv) below, the new set of guidelines will be formulated based on the review of pilot projects. Therefore, based on the review of pilot projects, LGED needs to implement training program on project management on their own as a regular training program, taking over the training program by the Project.
- (ii) Dissemination of PSSWRM Model
- The model components such as integrated approach, in-depth approach/village-wise approach and interactive approach will be utilized by JICA-2 and GoB projects so as to incorporate them into SSWRD projects. Therefore whenever LGED implements similar type of SSWRD projects funded by GoB or even other donors, it is recommended to disseminate this model into the project proactively.
- (iii) Review of Pilot Site
- Due to significant delay on the construction of pilot projects, synergistic effect study in pilot sites will be partially conducted during the project period. Under this project, though the training materials and guidelines were formulated based the review of pilot projects, it is expected that LGED should conduct review survey of pilot projects and reflect the review result into the guideline in order to utilize the project achievement .

(iv) Review of O&M activities of WMCA

- As mentioned in (iii) above, due to significant delay on the construction of pilot projects, the review of O&M activities of WMCA in pilot sites was not conducted during the project period. Therefore, LGED should reflect the review result of O&M activities of WMCA into guidelines and training manuals

3.7 Lessons learned

(1) Appropriate schedule for pilot project

- In this project, unavoidable circumstances significantly affected the progress of pilot projects implementation and full synergetic effect survey in pilot sites and review of O&M activities of WMCA cannot be conducted during the project period as expected at the time of project formulation. The initial idea of pilot projects was to verify the PSSWRM Model and to obtain lessons learned through pilot activities and it was necessary to consider implementation schedule of pilot projects and activities after the project period based on the objective of the pilot projects. However, it was not realistic to revise the implementation schedule of pilot projects as it was observed that the pilot projects would be delayed after mutual consent for pilot projects with local stakeholders such as candidates of WMCA members. Therefore, whenever any pilot project seems to be delayed due to unavoidable circumstances such as external reasons, it is necessary to consider flexibly revising the content of pilot project, taking into consideration of the objective of pilot project and activities after project period.

(End)