Ex-post Evaluation Summary Sheet

Evaluation conducted by: JICA Philippines Office

<table>
<tr><td colspan="3">1. Outline of the project</td></tr>
<tr><td colspan="2">Country: Philippines</td><td>Project Title: Environmental and Productivity Management of Marginal Soils in the Philippines</td></tr>
<tr><td colspan="2">Issue/sector: Agriculture</td><td>Cooperation scheme: Project Type Technical Cooperation (PTTC)</td></tr>
<tr><td colspan="2">Division in charge: Paddy Field Based Farming Area Team II, Group I, Rural Development Department</td><td>Total cost: 500 million yen</td></tr>
<tr><td rowspan="2">Period of cooperation</td><td rowspan="2">(R/D):
2000.2.1~2005.1.31</td><td>Partner Country's Implementing Organization:
Bureau of Soils and Water Management (BSWM)</td></tr>
<tr><td>Supporting organization in Japan:
Ministry of Agriculture, Forestry and Fisheries (MAFF)</td></tr>
<tr><td colspan="3">Related cooperation:
Grant aid: The Soil Research and Development Center Project (1988-1989)
PTTC: The Soil Research and Development Center Project (1989-1994); The Soil Research and Development Project, Phase II (1995-2000)</td></tr>
<tr><td colspan="3">1-1 Background of the project:
Development assistance by the Government of Japan (GOJ) to the Bureau of Soils and Water Management (BSWM) of the Department of Agriculture (DA) began in 1988 when the Soils Research and Development Center (SRDC) was established through Japan's Grant Aid program. This was followed by two successive Project-Type Technical Cooperation (PTTC) projects utilizing the facilities and equipment provided with the Center. Phase I, which was implemented from 1989 to 1994, built the capacity of BSWM staff in the fields of soil survey analysis, soil classification, fertility management, technology dissemination and training for rational land use and practical technology development. Phase 2, which was implemented from 1995 to 2000, developed technologies for problem soils including Ultisols. In September 1998, the Government of the Philippines (GOP) made a request to the GOJ for a project entitled the "Environmental and Productivity Management of Marginal Soils in the Philippines (EPMMA)" for the purpose of increasing food production through the improvement of the soil and water management of marginal lands and degraded soils. In response, the GOJ through the Japan International Cooperation Agency (JICA) dispatched two Study Teams in 1999. Subsequently, on January 12, 2000, the DA and JICA signed the Record of Discussions for the PTTC on EPMMA.

This ex-post evaluation study was conducted to determine the impact and sustainability of the project as well as extract lessons from the project cooperation and formulate recommendations to improve planning and implementation of similar projects in the future.</td></tr>
<tr><td colspan="3">1-2 Project overview</td></tr>
<tr><td colspan="3">(1) Overall goal
The soil and water management technologies contributing to stable and sustainable agricultural production are adopted in pilot marginal lands (macro watersheds of three techno-demo farms)
(2) Project purpose
Suitable soil and water management systems are developed for the three techno-demo farms and their micro watersheds.
*`Systems' means total program implementation methodology of BSWM for practical research and demonstration in which applicable technologies are decided through the interaction of local member organization and introduced in farmers' fields.</td></tr>
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(3) Outputs

1) The soil and water technologies are modified for three techno demo farms.

2) Three techno demo farms are well managed and maintained.

(4) Inputs

<Japanese side>

Long-term experts, 13 — Equipment, 78 million Yen

Short-term experts, 15 — Local cost, 37 million Yen

Trainees received in Japan, 16

<Philippine side>

Counterparts, 48

Local cost, 113 million Pesos

Others, Land, office, research centers and office operation cost (electricity, water)

2. Evaluation team

Members of Evaluation Team	Mr. Rudini Baoy, Supervisor, JICA Philippine Office Ms. Violeta Corpus, Team Leader, PrimeLogic Consulting, Inc. Mr. Fernando de Villa, Survey Specialist, PrimeLogic Consulting, Inc.	
Period of Evaluation	July 2, 2007 to September 10, 2007	**Type of evaluation:** Ex-Post Evaluation

3. Project performance

3-1 Performance of Project Purpose

Field surveys conducted during this ex-post evaluation revealed that the Local Government Units (LGUs) of San Ildefonso, Bulacan, Tanay, Rizal and Impasug-ong, Bukidnon have adopted the Techno-Demo Farm (TDF) strategy in propagating the technologies developed and demonstrated by EPMMA in the micro-watersheds. The LGUs of San Ildefonso and Tanay in cooperation with other stakeholders have established satellite demo farms in strategic locations within the target micro-watersheds replicating the technologies introduced by the project in the TDFs. In Impasug-ong, the Municipal Agricultural Office (MAO) introduced the EPMMA technologies in several ongoing projects of the local government. Moreover, successor entities (Councils/Consortium) evolved from the Technology Demonstration Coordinating Committees (TDCCs) with expanded membership and re-defined roles including sustainable development of target micro-watersheds.

3-2 Achievement related to Overall Goal

The focus group discussions conducted by the evaluation team in the project sites revealed the following achievements related to Overall Goal:

(1) In San Ildefonso, Bulacan – technology replications were observed in two barangays: Bulusukan with 5 farmer replicators, and Bubulong Munti with 7 farmer replicators. These farmers were recipients of several trainings conducted under EPMMA.

(2) In Tanay, Rizal – some 44 farmers who underwent the training on conservation farming conducted by BSWM Tanay Research Station have adopted the technologies introduced by the project in their farms. Five farmer-initiated techno demo farms on conservation farming for hillylands are being established within the Tanay micro-watershed.

(3) In Impasug-ong, Bukidnon – 46 farmers in Tigbao micro-watershed actively apply soil and water management technologies introduced by EPMMA. In addition, some 400 vegetable farmers within the watershed have been practicing contour farming with about 120 among them already practicing composting and other soil fertility management methods.

3-3 Follow-up of the Recommendations by Terminal Evaluation Study

The following activities were carried out by the responsible entities in response to the recommendations made during the terminal evaluation study:

(1) Continuation of TDF activities by farmer-cooperators and transfer of TDF management to concerned LGUs (except for Bukidnon TDF);

(2) Assistance by the Councils in TDF planning and dissemination of technologies to other farmers;

(3) Monitoring of the TDFs for the last two years after project completion by JICA and BSWM;

(4) Expansion of project achievement through TDF technology replications by BSWM in its other projects involving other marginal lands;

(5) Dissemination of project results by BSWM through introduction of more affordable technologies and utilization of farmer-cooperators' experiences to transfer technology to other farmers;

(6) Provision of necessary budget by BSWM to sustain, strengthen and expand project activities, including the O&M requirement of the facilities and equipment provided under EPMMA project.

4. Results of evaluation

4-1 Summary of evaluation results

(1) Impact

The project generated positive impact as the number of farmers who adopted the soil and water management technologies recommended for marginal lands increased from 381 at the end of project cooperation in 2005 to 478 at present. The institutional framework for sustained technology promotion has been established with the assumption of TDF management by LGUs and transformation of TDCCs into Councils/Consortium with expanded membership and re-defined roles ranging from promotion of EPMMA technologies to planning and coordination of micro-watershed development.

In addition, the project generated the following unintended positive impacts:

(a) Farmers trained under the project have become trainers themselves and are utilized as resource persons on soil and water management technologies during site visits of students, farmers and other visitors to the TDF sites;

(b) Members of the Councils/Consortium that succeeded the TDCCs have formulated integrated watershed development and management plans and endorsed these plans to the respective LGUs. The LGUs, in turn, have incorporated these plans into the overall LGU development plans;

(c) The number of institutions, both government and private, that requested and availed of BSWM expertise and technical assistance on soil and water management and conservation has been increasing;

(d) Former BSWM counterparts confidently apply the skills learned from the EPMMA project in packaging of project proposals and in implementing other BSWM projects; and

(e) The TDFs and BSWM research stations became regular venues of educational field trips for agriculture students and farmer cross visits.

There was no negative impact generated by the project at the time of evaluation.

(2) Sustainability

Institutional

The institutional sustainability of the project is secured because BSWM remains as the principal government agency mandated to address sustainable development and utilization of soil and water resources for agricultural production. The overall goal of the project still remains in accordance with the national government goals. BSWM has maintained its organizational structure with the 3 National Research Centers located in Bulacan, Rizal and Bukidnon subsuming the EPMMA project activities into

their regular work programs. Out of the 94 project counterparts, 83 remain employed at the BSWM. On the other hand, 19 out of 22 project counterparts sent to Japan for training are still working with the different divisions of BSWM. Each Research Center is manned by the former counterparts and other staff. All former project counterparts have permanent employment status.

At the LGU level, institutional sustainability is secured with the transfer of management of the three TDFs from BSWM to the LGUs through their respective Municipal Agricultural Offices. This arrangement is deemed most appropriate considering that agricultural technology extension functions have been devolved to the local governments by virtue of the Local Government Code of 1991. Moreover, the TDCCs established by the project to allow stakeholder participation in technology development and promotion have been institutionalized in the project sites and evolved into successor Councils/Consortium with expanded membership and redefined roles including the sustainable development of target micro-watersheds. At the TDF level, the TDF in Bulacan is well maintained by the 3 farmer-cooperators. One of the 2 farmer-cooperators of the TDF of Tanay and the two farmer-cooperators in the TDF of Bukidnon failed to maintain their farms due to land ownership and financial issues. Despite the mixed performance by farmer-cooperators in the TDFs, the sustained technology promotion activities of the Councils/Consortium resulted in technology replication in the watershed areas.

Technical

The technical sustainability aspect of the project is likewise secured. Nineteen out of 22 former project counterparts trained in Japan continue to work at the BSWM. Moreover, former project counterparts are able to apply the skills they have acquired during the project in carrying out the BSWM's mandate including development of soil and water management technologies for marginal areas. Using the EPMMA experiences, the three Research Centers have continuously improved or modified the developed technologies to suit farm conditions and make these affordable to farmers. Despite the limited opportunities for training after the project, former project counterparts were able to upgrade their skills through pursuit of graduate studies, learning from colleagues, experts and field contacts, literature review and internet searches, attending symposiums/seminars, and field visitations/farmer assemblies. Most of the equipment provided under the project are properly maintained and are regularly utilized by the BSWM Central Office and Research Centers for technology research and development and promotional activities and by farmers for their land preparation and other farm-related activities.

Financial

The financial sustainability aspect of the project is fairly secured. BSWM received an annual budget from the government of more than Php 90 million in 2005 and 2006. Most of the operating expenses were spent on research and development, extension support, education and training services and information support services. The operation and maintenance expenses for the project-supplied equipment, which have been minimal, are adequately provided in the annual budget of BSWM. At the LGU level, funds for continuing the EPMMA activities including the provision of extension support services to farmer-cooperators within and outside the TDF sites, albeit limited, is included in the budget of the Municipal Agricultural Office (MAO). In view of their limited budget, the LGUs mobilize financial and material support from cooperating agencies, e.g., DA Regional Integrated Agricultural Research Centers, Department of Agrarian Reform and Department of Environment and Natural Resources. At the farmers' level, the low financial capacity of farmers in marginal areas is a major factor that could hinder replication of recommended technologies unless more affordable technologies and credit assistance are

4-2 Factors that have promoted the project

(1) Impact

Factors that have promoted impact include: (a) sustained technology promotion activities by project stakeholders including BSWM, LGU and TDCC members in target micro-watersheds; (b) establishment of satellite demonstration farms; and (c) integration of EPMMA-recommended technologies in micro-watershed development plans.

(2) Sustainability

Factors promoting sustainability include: (a) high priority given to development of marginal lands as evidenced by continuous budgetary support to BSWM by the national government; (b) formal acceptance by LGUs of the responsibility for managing the TDFs through the forging of MOAs with BSWM; (c) transformation of TDCCs into Councils/Consortium with expanded functions.

4-3 Factors that have inhibited the project

(1) Impact

The LGU's limited budget for extension has inhibited the widespread promotion and adoption of EPMMA technologies within the target watersheds. Moreover, while some farmers in the target watersheds may have adopted some of the recommended technologies, the project did not provide a mechanism for monitoring them.

(2) Sustainability

The non-permanent tenurial status of farmer-cooperators hindered the continuity of TDF activities. The high cost of investment required by some EPMMA technologies is another factor hindering the technology adoption by farmers in marginal areas.

4-4 Conclusion

The project's Overall Goal has been achieved as evidenced by the increased number of farmers adopting recommended soil and water management technologies within the target watersheds from 381 at the end the project to about 478 at the time of evaluation. The institutional framework for dissemination of EPMMA technologies within the target watersheds has been established with the assumption of management of TDFs by the LGUs and transformation of the TDCCs into Councils/Consortium with the long-term objective of sustainable micro-watershed development. Technical sustainability is secured as most of the former project counterparts remain working at BSWM utilizing skills acquired in continuing EPMMA-related activities. Financial sustainability of the project is likewise secured as BSWM receives continuing budgetary support from the national government for development and promotion of soil and water management technologies. At the farmers' level, financial support is necessary in order to encourage replication of EPMMA technologies within and outside the target areas.

4-5 Recommendations

For BSWM

- To continue monitoring and providing technical support to the LGUs in order to ensure that the TDFs are maintained;
- To assign a permanent staff to its national research center in Bukidnon to supervise and coordinate soil and water management technology dissemination activities;
- To continue the development and modification of technologies with a view towards making them more affordable to farmers in the target watersheds and other marginal areas;
- To continue monitoring and providing technical assistance to the activities of the Councils/Consortium particularly those aimed at propagating EPMMA technologies within the target watersheds.

For the LGUs

- To sustain the management of the TDF and take the lead role in steering the activities of the Councils/Consortium;
- To facilitate the issuance of resolutions and other legal instruments that will integrate the

Councils/Consortium -initiated watershed management plans into the LGU development plans providing funds thereof for implementation of TDF activities.

For GOJ-JICA

- To consider the BSWM proposal for follow-up cooperation with a view towards enhancing the capacity of the LGU and the Councils/Consortium to manage soil and water management technology dissemination and promotion activities in the target watersheds.

4-6 Lessons learned

- Active participation of stakeholders in planning and implementation of technology development and promotion activities is key to project sustainability.
- Linking farmers to sources of credit financing should be a complementary intervention for technology promotion projects to achieve financial sustainability.

4-7 Follow-up situation

BSWM submitted to JICA a proposal for follow-up technical cooperation entitled "Productivity Improvement through Participatory Soil and Water Conservation Development" which seeks to: conduct follow-up trainings on soil conservation farming; activate LGU-led Councils; and establish farmer-led *in-situ* trial farms.