

## Summary of Terminal Evaluation Result

<b>1. Outline of the Project</b>	
Country: The Republic of the Philippines	Project Title: The Project on Integrated Coastal Ecosystem Conservation and Adaptive Management under Local and Global Environmental Impacts in Philippines
Issue/Sector : Nature Conservation-Conservation of Biodiversity	Cooperation Scheme: Technical Cooperation
Division in Charge: Natural Environment Team 1, Forestry and Nature Conservation Group, Global Environment Department.	Total Cost : 450 million yen
Period of Cooperation	(R/D): 25 February, 2010. 28 Feb. 2010~27 Feb. 2015
	Partner Country's Implementation Organization: University of Philippines, Diliman.  Supporting Organization in Japan: Tokyo Institute of Technology, Japan Science and Technology Agency (JST), Japan International Cooperation Agency (JICA)
<p><b>1-1 Background of the Project</b></p> <p>Coastal ecosystems and Environment in the Republic of the Philippines (hereinafter referred to as "Philippines" ) have been rapidly deteriorated due to combined effects of marine pollution, uncontrolled tourism development and global climate changes. Destruction of coastal ecosystems has adverse impacts to the livelihood of the coastal communities, since the country consists of a number of islands, and will possibly result in increasing the vulnerability to natural disasters.</p> <p>The Philippines lacks the basic scientific information it needs to formulate policies and make decisions that promote regional development while conserving its ecosystems. The country needs to address the pressing issues of (1) raising awareness among local residents and (2) strengthening and improving its legal system to conserve ecosystems in coastal areas and develop its human resources. It must also formulate plans to conserve coastal ecosystems and implement adaptive management strategies based on broad-based scientific knowledge that includes socioeconomic studies.</p> <p>Under such circumstances, the Philippine government requested to conduct Japan-Philippines joint research project on coastal ecosystem conservation.</p> <p>The detailed planning survey was conducted in September 2009, and Japanese and Philippine governments agreed outline and components of the Project. The Record of Discussions (R/D) was signed in February 2010, and the five (5) year project started from March 2010 under the framework of Science and Technology Research Partnership for Sustainable Development (SATREPS).</p> <p>Before the termination of the project, the terminal evaluation team studied and evaluated the Project in the Philippines in September, 2014.</p> <p><b>1-2 Project Overview</b></p> <p>(1) Project Purpose</p> <p style="padding-left: 20px;">The supporting basis is developed for coastal ecosystem conservation and adaptive management.</p> <p>(2) Outputs</p> <ol style="list-style-type: none"> <li>1. Scientific and socio-economic knowledge basis is developed for coastal ecosystem conservation and adaptive management.</li> </ol>	

2. Output 1 is implemented and disseminated.
3. Capacity is developed for coastal ecosystem conservation and adaptive management.  
(Note: Institutional, organizational and individual capacity is developed.)

(3) Inputs

<Japanese side>

Long-term experts: 57.8 M/M	Provision of Equipment: 148 million yen
Short-term experts: 73.5 M/M	Local operational cost: 95 million yen
C/P training in Japan: 57 person	

<Philippine side>

C/P allocation: 25 person  
Building and facilities: Working space for experts

**2. Evaluation Team**

Members of Evaluation Team	<p>Team Leader: Mr. Kei JINNAI, Director, Natural Environment Team 1, Forestry and Nature Conservation Group, Global Environment Department, JICA</p> <p>Evaluation Planning: Mr. Koji MITOMORI, Natural Environment Team 1, Forestry and Nature Conservation Group, Global Environment Department, JICA</p> <p>Evaluation Analysis: Mr. Shigeo SAKAI, Consultant, Japan Development Service Co., Ltd.</p> <p>Dr. Kotaro INOUE, Principal Fellow, Japan Science and Technology Agency (JST)</p> <p>Dr. Yoshimi UMEMURA, Assistant Program Officer, Japan Science and Technology Agency (JST)</p>	
Period of Evaluation:	10 September 30 - September, 2014	Type of Evaluation: Terminal Evaluation

**3. Results of Evaluation**

**3-1 Progress of the Project**

• **Achievement of Outputs**

Achievement of the Output 1:

Output 1 is almost accomplished.

- The project team are composed of four (4) research groups; namely, (1) geochemistry group, (2) ecological group-A, (3) ecological group-B, and (4) model development and assessment group. Four research groups have identified the areas where environment stress spreads, and how the coastal ecosystem reacts to it. Their achievements have been compiled in an academic paper and used to make posters for educating the general public about the significance of environmental conservation. Among the project sites, multiple environmental stress evaluation assessments have made progress at two of the sites. The development of ongoing suggestions for establishing a Marine Protection Area (MPA) has experienced slight delays, however.
- All six project sites have completed the establishment of the Continued and Comprehensive Monitoring System (CCMS) and started operation. The prototypes for the Integrated Decision-making Support System (IDSS) have also been developed at four focal sites. Another one of the sites is making ongoing efforts to the same. However, a user-friendly interface for the IDSS has yet to be achieved, while reliability and accuracy must still be improved. These issues are expected to be resolved before completion of the project.
- The building of multiple CCMS databases is still in progress. Currently, structuration is in progress at the Engineering Department of the University of the Philippines Diliman (UPD) and at the

Tokyo Institute of Technology, and is expected to be completed by the end of the project.

#### Achievement of the Output 2:

Output 2 is almost accomplished, but some of the activities are ongoing.

- CCMS was built at six project sites. The significance of the system is well understood by local governments. The municipalities cover part of the CCMS operational costs.
- A collaborative scheme for IDSS operation has been established, involving local communities, organizations, and research institutes. Training programs for the local communities that will use the program and methods of technical assistance provided by the research institute are well organized.
- Core configuration guidelines for the coastal ecosystem conservation and adaptive management program have been established. Progress is slow, but steady.
- The project reports research outcomes through two international conferences in addition to at several workshops. Project activities include environmental education programs in the involving posters.

#### Achievement of the Output 3:

- The project is almost completed, despite some delays in configuring networks between foreign organizations. Ongoing efforts have been made in this area.
- Improvement in the capacities of local researchers and research institutes has been confirmed through short- and long-term training programs held in Japan. Also confirmed are project contributions to capacity-building through seminars and workshops designed for local government units (LGUs) and domestic stakeholders.
- Networks involving academic institutions, LGUs, and domestic stakeholders have been established in the course of project implementation, resulting in excellent team effort among the parties. However, slight delays have been observed in building networks between foreign organizations in the Southeast Asia and West Pacific regions. This issue is currently being addressed, and it is expected the second national conference to be held before the project completion (in January 2015) will be used as an opportunity to report related outcomes.

#### **(2) Prospect for achieving Project Purpose (Supportive infrastructure for coastal ecosystem conservation and adaptive management will be developed)**

Project goals will likely be achieved before completion of the project.

- Researchers in both the Philippines and Japan are actively working to clarify the severity and scope of environmental stressors and reactions from the coastal ecosystem. These achievements and IDSS development (integrated and practical use of CCMS) are completed up to the prototype-making phase. Before project completion, it is necessary to improve accuracy and reliability, in addition to preparing guidelines for coastal ecosystem conservation and adaptive management based on the compiled project achievements. Visible progress has been demonstrated in the establishment of a collaborative system between local government units and research institutions to operate the IDSS; however, maintaining the scheme in a sustainable manner is critical.
- In addition, a framework of ideal measures for establishing and managing an MPA network is in the works, with the hopes of issuing proposal not only to the local government units but also to the central government.

### **3-2 Summary of Evaluation Results with five (5) criteria.**

#### **(1) Relevance: High**

Relevance is high in terms of Philippine development policy, needs in the Philippines, Japanese official development assistance (ODA) policy for the Philippines, and Project design.

- The Philippines is a maritime nation, but coastal ecosystem deterioration is in progress in recent years. The Philippine Development Plan (PDP) emphasized conservation and rehabilitation of the environment.
- The Project is expected to promote sustainable coastal resource management, which is expected to fulfill the needs of the local economy and industry, and has positive effects to poverty alleviation.
- IDSS – a tool for integrated decision-making support system for coastal ecosystem management - will be developed as a result of the project, and an expectation and needs of the local government and stakeholders are high.
- The Project meets the objectives of the Japanese ODA policies, in terms of climate change mitigation and adaptation.

#### **(2) Effectiveness: Relatively High**

The effectiveness of the project is relatively high

- The Project has three (3) main outputs, and the project purpose will be logically accomplished by accomplishing all outputs.
- Mid-term review emphasized the importance of the socio-economic inputs to the IDSS, and the project team reinforced inputs of socio-economic from both Philippine and Japanese sides.
- The Project organized site-based workshops and seminars in order to understand local needs to secure effectiveness of IDSS. IDSS is supposed to incorporate local conditions and tackle their problems.

#### **(3) Efficiency: Relatively High**

The efficiency of the project is relatively high.

- Inputs to produce project outputs are reasonable.
- The project team experienced losses of equipment, including CCMS equipment, and these incidents affected project efficiency.
- The project team is producing several social application tools, such as CCMS and IDSS, but some of the products, such as guideline, are not yet completed.
- The project team is required to prepare many documents and permissions in order to collect, transport and export biological materials, and which affected project efficiency.

#### **(4) Impact: High**

The impact is expected high.

- Human capacity building for both academic institutions and related local LGUs are observed through a short/ long term training in Japan, and seminars and workshops.
- The project organized national conferences, and enhanced environmental conservation consciousness.
- The project developed a network between Philippine and Japanese research institutions and scholars.
- It is expected that a policy proposal on MPA will be submitted to national level authorities and utilized for future policy making.

### **(5) Sustainability: Medium**

The sustainability of the project is expected medium, based on the fact that the sustainability of the project depends on a type of project activities.

- Sustainability on research activity is relatively high because of commitment of scientists and research institutions to continue their research topics, on the assumption of obtaining external financial support. In addition, personal relationship between Prof. Nadaoka and Philippine academic counterparts is firm, and this relationship will ensure academic sustainability.
- Sustainability of CCMS and IDSS is evaluated medium with a present situation and potential risks in Philippine. A possible loss of CCMS equipment and a continuous financing to use and maintain the CCMS equipment are two main difficulties for CCMS sustainability.
- In addition, the IDSS sustainability requires further end-user training and a post-project plan and IDSS/ Geographic Information System (GIS) software user manual before the end of the Project.

### **3-3 Factors that promoted the realization of effects**

#### **(1) Factors pertaining to planning**

- An existing networks among researchers has been utilized to establish project design and a selection of the project sites and experts.
- Network of Researchers contributes largely to balance the entire project integration and cross-disciplinary research components.

#### **(2) Factors pertaining to the implementation process**

- Existence of personal relationships among Philippine and Japanese researchers heightened project effects and efficiency. Collaboration with municipal offices enables project operation easy and smooth, since local governments support to provide permission and maintenance cost to the project.
- The project is successful in human resources development through workshop and seminars, and short and long-term training in Japan.
- The joint research activities contribute to the human resource development of Philippine young researchers and professors, as well as the strengthening of research capacity of research institutions. Furthermore, the project has contributed significantly to fostering Japanese young researchers.
- As a response to the recommendations in the mid-term review, the project team established project indicators at the 5th Joint Coordinating Committee (JCC).
- The mid-term review also recommended to clarify specifications and design of IDSS, and the prototypes of IDSS have been created in four (4) locations. In addition, the socio-economic field survey were conducted, and the results and data will be integrated into the IDSS.

### **3-4 Factors that impeded the realization of effects**

#### **(1) Factors pertaining to planning**

Not applicable.

#### **(2) Factors pertaining to the implementation process**

- There was a delay of research equipment procurement in September 2010.
- The Project needed several different permits and agreements from related authorities. The project team had obtained all the necessary documents and permits in the course of the project.
- Lack of proper schedule management based on the PO caused delay of some activities.

### **3-5 Conclusion**

- The Project has mostly achieved the project purpose, and will successfully establish the supporting basis for coastal ecosystem conservation and adaptive management by the end of the project period.
- The IDSS is working as a tool of social implementation with completed prototypes at four focal sites out of five project sites. The rest are expected to complete the same by the end of project. Several training programs have already provided to local end users, including LGUs and local communities (e.g. chambers of commerce).
- Notable achievements have been made through ongoing and active efforts to develop human resources and organizations involved in coastal ecosystem conservation in the country. The project has also contributed to fostering young scientists participating from Japan.
- Note, however, that the following must be completed before project completion: (1) revision of DSS prototypes, (2) completed MPA proposal, and (3) compilation of guidelines related to conserving coastal ecosystems.

### **3-6 Recommendations**

#### (1) Recommendation to the project team

- The project team has to set up and agree the detailed development schedule of activities especially for IDSS sophistication, an establishment of the MPA scheme and Guidelines for the remaining period of the project. Among others, coastal ecosystem conservation guidelines need to be elaborated by the end of the project term.
- IDSS prototype needs sophistication and improvement before the end of the project.
- Central government's role in coastal ecosystem conservation is crucial, so the project needs to properly disseminate the project results to central government.

#### (2) Recommendation to the Philippine counterpart institutions

- The project implementers should continue to provide technical assistance to the local communities in utilizing project products, especially IDSS.
- UPD, University of Philippines Visayas (UPV) and Mindanao State University-Naawan (MSUN) have to designate proper person in charge and allocate funds for maintenance of the equipment provided by the Project.
- CCMS needs to be maintained by proper allocation of personnel and budget from UPD, UPV and MSUN. The Universities should explore a Memorandum of Agreement (MOA) for utilization and support of IDSS with respective LGU by the end of the project term.

### **3-7 Lessons Learned**

- Equipment provided by SATREPS projects should be decided in taking consideration of maintenance capability and spare parts availability in the recipient country. Suitability of the equipment need to be discussed at the proposal and formulation stage of the project.
- Project which has many research sites has heavy administration work that allocation of multiple coordinators should be considered at the planning stage of project.