

# Terminal Evaluation

## Oceania

### 1. Outline of the Project

**Country:**

Republic of Palau

**Project title:**

The Project for Construction of Palau Coral Reef Center

**Issue/Sector:**

Environment

**Cooperation scheme:**

Grant Aid

**Division in charge:**

Project Monitoring and Coordination Division, Grant Aid Management Department

**Total cost:**

(E/N amount) 830 million yen

**Period of Cooperation**

Fiscal Years 1998, 1999 - 2000

**Partner Country's Implementing Organization:**

Ministry of Resources and Development

**Supporting Organization in Japan:****Related Cooperation:**

Dispatch of Individual Experts

Project-type Technical Cooperation; "Palau International Coral Reef Center Strengthening Project"

### 1-1 Background of the Project

The major industries in the Republic of Palau are tourism, handicrafts and fishery/agriculture mainly for self-sufficiency. Among them, tourism occupies about a half of its GDP (48.6% in 1997) and for appreciation of natural environment including coral reef, 50,000 - 60,000 tourists visit Palau from U.S.A., Japan and Taiwan every year. The number of tourists had had a ten percent growth a year from the early to mid-1990s and facilities for tourists such as hotels had been constructed one after another.

In the meantime, the rapid promotion of tourism development and activation of fishery around the coral reef, recently causing degradation of the coral reef and its biological resources, came to pose a severe problem. Under this circumstance, the urgent task for Palau was identified as follows: to maintain the coral reef and its ecological system, to research methods for sustainable utilization of those resources, to raise awareness of its citizens and tourists from overseas.

"Coral Reef (Prevention)" was newly added in a Japan-U.S. common agenda for cooperation at the Japan-U.S. vice-ministerial level consultation in May 1994. The government of Japan announced to consider the settlement of a research center in Palau as the bases for coral reef research in Asia and Pacific regions at the "International Coral Reef Initiative" conference held in the Philippines in June 1995.

Under these circumstances, in April 1996, the government of Palau settled the "National Master Development Plan" with the aims of "tourism development considering the prevention of natural environment and culture", "simultaneous pursuit of prevention and proper utilization of marine environment" and "research and education for improvement of environment prevention methods". In August 1996, the government of Palau requested to the government of Japan for grant aid for the necessary funding to construct and develop the "Palau International Coral Reef Center" where research on coral reef and its ecological system and awareness raising activities for their prevention are implemented.

### 1-2 Project Overview

In order to promote research and awareness raising/education on the coral reef ecological system in Palau, grant aid was provided for the necessary funding to construct the Palau Coral Reef Center (the Center) and to prepare necessary equipment.

#### (1) Overall Goal

Conservation and sustainable use of marine resources such as coral reef are established in Palau.

## (2) Project Purpose

- 1) The methods for the preservation of the coral reef ecological system are improved.
- 2) The consciousness of Palau people and foreign tourists for the preservation of coral reefs is enhanced.

## (3) Outputs

- 1) The center (research building, visitor center building and management building) is constructed.
- 2) Seawall facilities are renewed around the center facilities.
- 3) Necessary equipment (equipment for research/observation, experiment/practice and exhibition) are prepared to implement the center activities.

## (4) Inputs

(at the evaluation)

Japanese side: (E/N amount) 830 million yen

(35 million yen in FY 1998 for detailed design, 785 million yen in FYs 1999 - 2000)

Bhutan's Side:

Land for the center, furniture, equipment/consumables

## 2. Evaluation Team

**Members of Evaluation Team** Team Leader: Hideki TOMOBE, Resident Representative, JICA Fiji Office  
Operation and Management of the Center: Yoshitaka ABE, Director, Fukushima Kaiyo Kagaku-kan Foundation  
Operation and Maintenance of Equipment: Koichi ASANO, Japan International Cooperation System

**Period of Evaluation** 10 March 2003 - 15 March 2003 **Type of Evaluation:**  
Terminal Evaluation

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

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#### (1) Relevance

The government of Palau developed the "National Master Development Plan" in April 1996 with the aims of "tourism development considering the preservation of the natural environment and culture", "simultaneous pursuit of the preservation and proper utilization of marine environment" and "research and education for improvement of environmental preservation methods". This grant aid supported the provision of facilities and equipment necessary for the "Palau Coral Reef Center" which was the base of awareness raising activities for research and preservation of coral reef ecological system in Palau, therefore, the project met the overall plan of Palau and had high relevancy.

The government of Japan added "Coral Reef Conservation" into the Japan-U.S. common agenda as well as announcing consideration of the settlement of a research center at Palau as the bases for coral reef research in Asia and Pacific regions at the "International Coral Reef Initiative" conference held in the Philippines in June 1995. The center was to play a role of base for a global coral reef monitoring network in the Federated States of Micronesia region. Therefore, the government of Japan realized the above commitment.

#### (2) Effectiveness

The facilities and equipment donated by this grant aid was handed over to the Palau side in September 2000 and after the preparation period, the Palau International Coral Reef Center (PICRC) was opened in January 2001. From October 2002, the Japanese government commenced the four-year project-type technical cooperation, the "Palau International Coral Reef Center Strengthening Project" and supported the activities of each section (management, research, exhibition and awareness raising/education) of the center for its sustainability. The center implemented the following activities although it was quite a short period since the center had opened at the time of this evaluation. As for research activities, the center implemented monitoring activities on an oceanographic survey and coral reef biological system at 218 points. Also, the center had been compiling a Geographic Information System (GIC) database of the results from the monitoring. Developing and fulfilling the database on that basic information might lead to implementation of full-fledged research activities.

As for awareness raising/education activities, the center implemented an educational program on marine ecosystem to fifteen schools (ten elementary schools, two senior high schools, one college and one other schools) at the center and visited three schools as a part of the "School Presentation Program" activities. For the general public, the center held community workshops as well as prepared the book database at libraries in the center preparing for the increase of users.

(3) Efficiency

Facilities were constructed and equipment was delivered as planned.

(4) Impact

As the center was just opened, there was no particular impact observed. However, it would be worth mentioning that "the 10th international coral reef symposium" will be held at the center and many researchers inside and outside the country will join it. It will be a good chance for the center to improve its recognition to the world, and that will be a first step to playing a role of a base of the global coral reef monitoring network in the Federated States of Micronesia region.

(5) Sustainability

As for the organization and system, the "PICRC Strategic Plan (2002 - 2006)" was developed for the sustainability of PICRC, and based on the objectives and the contents of activities of each section settled in the plan, the center has taken necessary steps proactively to strengthen its organization. To be more precise, the center implemented training for its staff and the project-type technical cooperation; "Palau International Coral Reef Center Strengthening Project" supporting the efforts for enhancement of the organizational system at each management, research, exhibition, and awareness raising/education section. However, the center does not have enough personnel as a whole. Under the prevailing difficulty in finding suitable personnel in Palau society, the efforts implemented by the Palau side might be worth applauding, but further efforts are necessary to fulfill the empty posts as early as possible.

The facilities and equipment were well maintained and managed and the system for periodical checkup and repair was established. The stock of spare parts was also favorably managed.

### 3-2 Factors that promoted realization of effects

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(1) Factors Concerning the Planning Process

N/A.

(2) Factors concerning the Implementation Process

N/A.

### 3-3 Factors that impeded realization of effects

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(1) Factors concerning to Planning

N/A.

(2) Factors concerning to the Implementation Process

N/A.

### 3-4 Conclusion

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The facilities and equipment procured by using grant aid have been used effectively in the center. Also, it was found that their maintenance system functions properly. Since October 2002, the project-type technical cooperation 'Palau International Coral Reef Center Strengthening Project' has began, making effort to strengthen the center's organizational capacity in each section. As explained above, the basis for full-fledged activity of the center was deemed to be prepared.

### 3-5 Recommendations

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Recommendations to the center include the following:

- 1) Assigning of sufficient manpower to management and exhibition section by way of volunteers.
- 2) Continuing effort on disclosure of research results.
- 3) Collaborating with the tourism industry to enhance the tourist visibility of the center.
- 4) Preparing preventive stock of spare parts.

### **3-6 Lessons Learned**

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N/A.

### **3-7 Follow-up Situation**

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No need was found for follow-up activities.