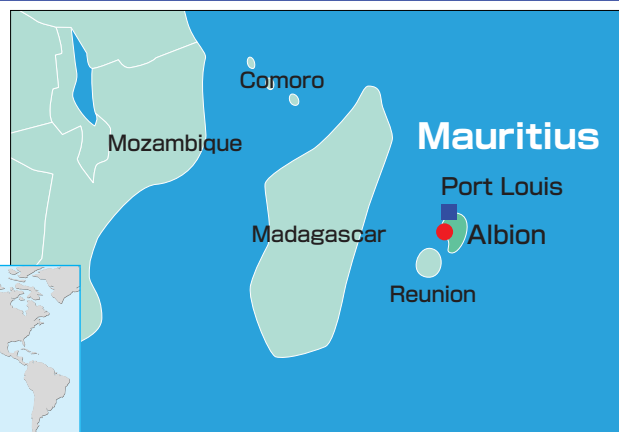


The Coastal Fisheries Resources and Environment Conservation Project



Project Sites Albion

1. Background of Project

Japan has provided technical cooperation through experts since 1991, based at the Albion Fisheries Research Center (AFRC) constructed in 1982 and at a shrimp culture center constructed in 1986 by grant aid. Mauritius is an important fishery base in the Indian Ocean, and its citizens rely on fishery products for approximately 40% of their animal protein intake. Also, due to the remarkable development of the tourism industry, the demand for coastal seafood has drastically increased in recent years. In its Sixth National Development Plan (1992 – 1994), the Government of Mauritius recognized the importance of basic studies for sustainable fisheries development, and regarded AFRC as a center to preserve coastal resources and the environment.

Under these circumstances, the Government of Mauritius, recognizing the necessity of training AFRC researchers to enhance its capability, requested project-type technical cooperation from Japan, which had provided support for the AFRC in the past.

2. Project Overview

(1) Period of Cooperation

1 December 1995 – 30 November 2000

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

The Albion Fisheries Research Center (AFRC)
Ministry of Fishery and Cooperatives

(4) Narrative Summary

1) Overall Goal

To continuously utilize coastal fisheries resources and conserve the coastal environment in the Republic of Mauritius.

2) Project Purpose

To systematically strengthen research capabilities

of the Albion Fisheries Research Center in the field of coastal fisheries resources propagation, and research into the coastal ecosystem and environment.

3) Outputs

- Method of stable mass seed production is improved.
- Suitable release and culture techniques in barachois¹⁾ are studied and acquired.
- Induced spawning techniques are established.
- A coastal environment monitoring system is established.
- Methods of coastal ecosystem research and monitoring techniques are improved.

4) Inputs

Japanese Side

Long-term experts	9
Short-term experts	14
Trainees received	14
Equipment	137 million yen
Local cost	26 million yen

Mauritian Side

Counterparts	12
Land and facilities	
Local cost	10.2 million rupees (Approx. 50 million yen)

3. Members of Evaluation Team

Team Leader:

Akira NIWA, Director, Fishery and Environment Division, Forestry and Natural Environment Cooperation Department, JICA

Resource Propagation:

Taira MATSUOKA, Technical Advisor, Overseas Fishery Cooperation Foundation

Coastal Ecosystem Research:

Satoshi NOJIMA, Assistant Professor, Kyushu University Graduate School

Planning and Management:

Hiroyuki TANAKA, Fishery and Environment Division, Forestry and Natural Environment Cooperation Department, JICA

Evaluation Analysis:

Kunio NISHIMURA, CRC Overseas Cooperation Inc.

4. Period of Evaluation

24 June 2000 – 12 July 2000

5. Results of Evaluation**(1) Relevance**

The fisheries development policy in Mauritius has been to promote the fishing industry while preserving the environment and resources, which is consistent with the purpose of the Project. This Project is relevant since capacity enhancement of AFRC, with its added function as a is essential for for preserving the fisheries environment.

(2) Effectiveness

The project purposes have mostly been achieved, as shown by the facts that the knowledge and techniques of AFRC staff improved, and that equipment and facilities were also upgraded. However, in the field of resource propagation, due to the unexpected outbreak of malformed fish and epidemic diseases, stable seed production of flat bream and mangrove crab²⁾ could not be achieved. As for the field of coastal ecosystem research, due to such a variety of coastal creatures, studies on conservation of coral reef, a matter of global importance, have just started.

(3) Efficiency

Most of the inputs were prepared on schedule, except that it took some time to develop local procurement routes, follow custom procedures and tax benefits measures for certain equipment.

In the latter half of the Project, there was some delay in the schedule, which was caused by an increase in research frequency and operation volume requested by other institutions as the counterpart's research capabilities were improved. The delay resulted in the reduction of time allocated for technical transfer and thus affected the project progress.

(4) Impact

Through this Project, private sectors made attempts to cultivate black tiger shrimp³⁾ and flat bream. Distribution of posters and holding seminars improved awareness of local people on the importance of the coastal ecosystem and environment conservation. Rippling effects were also observed in neighboring French Reunion, where they began propagation tests with flat bream seeds developed by the AFRC.



Installation of a coral setting board

(5) Sustainability

As coastal environment research has become increasingly important, and the AFRC is ensured of enough funds to play a role as a responsible institution for coastal environment research. Most of the trained staff remain at the AFRC and thus the retention rate is high. Thus, institutional and financial sustainability is guaranteed. As for technical sustainability, the AFRC is capable of conducting research by itself, except for resource propagation and coastal ecosystem research.

6. Lessons Learned and Recommendations**(1) Lessons Learned**

As capabilities of an implementing organization improve the workloads of the organization tend to increase, which may result in the lack of time for technical transfer from experts to counterparts. Thus, these circumstances should be taken into consideration when planning a project in the future.

(2) Recommendations

To ensure that the Project meets its initial purpose, more cooperation is needed to improve techniques on stable seed production and coral reef conservation research.

Mauritius should continue to publicize the research results, secure the budget for AFRC, maintain equipment and facilities, allocate an appropriate work force according to the workload, and set proper labor hours.

7. Follow-up Situation

Based on the recommendations above, three long-term experts have been assigned, from December 1, 2000 to November 30, 2002, conducting follow-up cooperation on the resource propagation and coastal ecosystem research.

¹⁾ Barachois is an embankment created in mangroves for culturing.

²⁾ As these seafood are highly valued in the market, they are promising for culturing in Mauritius.

³⁾ Same as the above.