Terminal Evaluation

Africa

1. Outline of the Project					
Country:		Project title: The Aquaculture Development Project in the Northwest Coasta Region of Madagascar			
Madagascar					
Issue/Sector:		Cooperation scheme:			
Fisheries(Aquaculture)		Project-Type Technical Cooperation			
Division in charge:		Total cost:			
Fisheries and Environment Div Environment Department	vision, Forestry and Natural	680 million yen			
Period of Cooperation	1 April 1998 - 31 March 2003	Partner Country's Implementing Organization:			
		Ministry of Agriculture, Livestock and Fisheries			
		Supporting Organization in Japan:			
		Kumamoto Prefecture Agriculture, Forestry and Fisheries Ministry (MAFF)			
Related Cooperation:					

Grant Aid; "Project for Development of Shrimp Culture"

1-1 Background of the Project

In Madagascar, shrimp fishing is a major industry that supports the national and regional economy, promotes the acquisition of foreign currency and generates employment. The government of Madagascar created a shrimp sanctuary, limited shrimp catches and promoted the vision of developing a thriving shrimp culture. To this end, the government of Madagascar requested an aid grant from the government of Japan. In response, the government of Japan supported the construction of the facilities for shrimp seed production in Mahajanga and helped to procure related materials. After the completion of "the Shrimp Culture Development Center (CDCC)" in 1996, the Madagascar government applied for a Project-type Technical Cooperation, aiming to promote small-scale shrimp farming through the enhancement of the CDCC.

1-2 Project Overview

In order to promote small-scale shrimp culture in Madagascar, the project was implemented to enhance the efficacy of the CDCC through the technical cooperation and instruction of seed production, intermediate breeding, farm operation, and advice on the management of CDCC.

(1) Overall Goal

To develop small-scale shrimp culture in a sustainable way with the participation of small-scale shrimp farmers in the northwest coastal region of Madagascar.

(2) Project Purpose

To strengthen the capacity of the Shrimp Culture Development Center to develop shrimp culture techniques, considering the local environment and situation.

(3) Outputs

1) Seed production technique is improved.

2) Seed production is carried out efficiently by the CDCC staff.

- 3) Appropriate shrimp culture method is identified.
- 4) The CDCC staff is prepared to carry out the dissemination activities of shrimp culture.
- 5) The CDCC management is improved.
- 6) Reference materials are prepared.
- (4) Inputs

Japanese side:

Long-term Experts	6	Equipment		116 million yen		
Short-term Experts	14	Local Cost		89 million yen		
Trainees received	11					
Madagascar's Side:						
Counterpart	8					
Land and Facilities						
Local Cost	447 thousand dollars (approximately 50 million yen)					
2. Evaluation Team						
Members of the Evaluation Team	Team Leader: Kayoko MIZUTA, Special Technical Advisor, JICA Shrimp Culture: Takeshi HARA, Executive Director, Japan Fisheries Resources Conservation Association Evaluation Analysis: Ikuo YAMAMOTO, IC Net Limited Planning Management: Kei JINNAI, Fisheries and Environment Division, Forestry and Natural Environment Department, JICA					
Period of Evaluation	5 January 200 January 2003)3 - 26 T	ype of Evaluat erminal Evaluatio	ion: m		

3. Results of Evaluation

3-1 Summary of Evaluation Results

(1) Relevance

In Madagascar, the shrimp industry supported the economy as a main export product after coffee and vanilla. Promoting shrimp farming is very important since natural shrimp resources are limited. Although cultured shrimp is highly dependent on large-scale cultivation in order to exist, the Madagascar government also promoted small-scale shrimp farming with less than 50ha of farm size. Therefore, the project was consistent with Madagascar's "Master Plan on Fishery and Aquaculture 1997 - 2001", which had the intention of contributing to foreign currency acquisition and poverty alleviation.

In the northwest region of Madagascar, (the target area of the project), many fishermen were engaged in traditional fishing. The region suffers from poverty more severe than other regions, where 70% of its population was under the poverty line. Therefore, the promotion of small-scale shrimp farming could increase income to fulfill the basic needs of the people and had huge relevance for this reason.

(2) Effectiveness

As CDCC is now capable of producing seeds in large quantities (more than 10 million - the year target), seed production techniques have been improved. To establish the necessary farming techniques suitable to each region, the project compared the incomes from extensive farming and half-consolidated farming methods. By studying both methods, the techniques for enhancing shrimp culture were steadily improved, and participants could implement both approaches without the support of the experts. In addition, the participants acquired the knowledge and skills to lecture and instruct other fishermen. They also saw the

improvement of reference materials, manuals, and management skills. Through these accomplishments, the project purpose of enhancing the efficacy of shrimp culture techniques was mostly accomplished, and the effectiveness of the project was high.

(3) Efficiency

Although there was a delay of some input such as budget disbursement on Madagascar side, the quantity of input such as improvement of equipment and seed production facilities was appropriate considering the effects of the project. Therefore, the efficiency of the project was fairly high.

(4) Impact

Through the project period, CDCC become able to sell seed to small-scale shrimp culture fishers, and knowledge on shrimp culture has widely spread because of the training courses, seminars, and publication utilizing mass media. As a result, the number of people who are interested in raising shrimp has increased. The area of small-scale shrimp culture farms has also expanded from 0.02ha (one company) in 1998 to 45ha (six companies) in 2002. These aspects could be said to demonstrate a positive impact on the achievement of the overall goal. However, the aforementioned farmers were not stable in the technical sense, and only one company has been able to make a reasonable and satisfactory profit so far. To accomplish the overall goal of this project, it is necessary to implement activities such as technical instruction, information sharing, and the creation of appropriate profit-making techniques. On the other hand, various positive impacts were also observed with the practical utilization of the CDCC's shrimp culture facilities. Mahajanga University launched its shrimp culture courses, at one junior high school and two senior high schools. Moreover, CDCC trainees found jobs at large-scale culture companies.

(5) Sustainability

Through the implementation of the project, the technical capabilities of the trainees were certainly improved so that they are now capable of continuing the management of CDCC by themselves. However, as all CDCC staff, (except the representative and accountant), were not public officials and were on short-term contracts, it is highly possible that these technicians and engineers who acquired the techniques will change their jobs. Technical sustainability of this project might thus become questionable. In addition, despite of the increase of applicants for the small-scale shrimp farming industry, there was only one small-scale shrimp culture company running a profitable business, and the project could not offer profit-making techniques. Therefore, the technical sustainability of shrimp farming could not be fully assured.

As for financial sustainability, the budget allocation from the Madagascar government began to decrease as the seed sales (an independent revenue source)- increased. However in current situation, it is difficult for CDCC to shift to a self-supported accounting system. Therefore in the future, the activities of CDCC may be curtailed or aborted if the budget allocation from the Madagascar government is decreased too drastically.

3-2 Factors that Promoted the Realization of Effects

(1) Factors Concerning the Planning

N/A.

(2) Factors concerning the Implementation Process

As the project carried out work to improve water intake and drainage facilities constructed through an aid grant, the technical transfer of the seed production section was smoothly implemented.

3-3 Factors that Impeded the Realization of Effects

(1) Factors Concerning the Planning

PDM organized at the initial stage of the project a lot of external conditions to be satisfied in order to reach to the overall goal such as the dissemination of acquired skills and techniques, even the project achieved its project purpose. Therefore, the relevance of the project plan was questioned in some ways at the beginning. However after the mid-term evaluation, adjustments, (particularly in light of dissemination activities), were made with the PDM, and the cause-effect relationships among outputs, project purpose and the overall goal were improved. For the terminal evaluation, nonetheless, since the official revision of the PDM was not timely conducted, (after the mid-term evaluation), there was a confusion as to how the evaluation was organized..

(2) Factors concerning to the Implementation Process

1) Because of the political turmoil in Madagascar in 2002, Japanese experts left the project site and stayed in the capital and Japan for three month during which time project activities were stopped. Although the cooperation was restarted, establishment

of a pilot project and the international symposium were canceled because of time restraints.

2) Due to the delay of tax exemption procedures on the Madagascar side in the first half of the project, the delivery of the necessary equipment was greatly delayed, and made project efficiency low.

3-4 Conclusion

As a result of the improvement of the seed production, culture techniques, and management of the CDCC, it can be concluded that the project's purpose was mostly accomplished. The spread of the project's impact began to be felt by the beneficiaries.

However, due to reasons of a political nature in Madagascar, pilot projects in the shrimp farming industry were delayed and the capacity to foster growth in the sector of the CDCC was not fully realized. The overall goal of the project is believed to be attainable if the Japanese side implements a follow-up cooperation particularly for the purpose of disseminating acquired knowledge in the sector of the CDCC.

3-5 Recommendations

(1) In order to maintain and enhance a small-scale shrimp culture promotion scheme, the Ministry of Agriculture, Livestock and Fisheries should enhance promotional activities through small-scale finance schemes, tax benefits, the dissemination of techniques, and appropriate budget allocation of the CDCC.

(2) In order to assure the organizational sustainability of the CDCC, the Ministry of Agriculture, Livestock and Fisheries should change the employment system of the CDCC from temporary employment to long-term employment as early as possible, In addition, frequent personnel changes by the ministry should be avoided.

(3) In order to assure financial sustainability, CDCC should stabilize financial conditions through acquiring the necessary budget from the government, as well as expanding their own income resources, (such as through seed sales, and cost sharing by the beneficiaries), so that the budget can be effectively used for the dissemination of acquired knowledge.

(4) CDCC should continuously enhance their technical capabilities (especially for farm management, feeding development, disease and injury control, and education).

(5) In order to accomplish the overall goal to foster the growth, effectiveness and sustainability after the project's implementation, the Japanese government should implement a follow-up cooperation, to support a number of small-scale cooperation activities, such as at farm management, feeding development, disease and injury control, and dissemination activities.

3-6 Lessons Learned

(1) At the planning stage, it is recommended to define the target group and beneficiaries of the project as clearly as possible, to maintain recognition of the stakeholders of the project.

(2) According to the progress of a project, it is recommended to make timely revisions of PDM to maintain the common understanding among stakeholders of the project.

3-7 Follow-up Situation

An extended cooperation for two and a half years will launched with a long-term expert from December, 2003.