

## Simplified Ex-Post Evaluation for Grant Aid Project

Evaluator, Affiliation	Junko Miura Global Link Management Inc.	Duration of Evaluation Study
Project Name	The Project of the Improvement of Fishery Port in Cotonou	March 2010 – December 2010

### I Project Outline

Country Name	Republic of Benin			
Project Period	September 2003 (Detail Design)-November 2005 (Completion of facility construction and installation of equipment)			
Executing agency	Ministère de l'Agriculture, de l'Elevage et de la Pêche (MAEP), Direction des Pêches (Department of Fisheries)			
Project Cost	Grant Limit: 1049 million yen	Actual Grant Amount: 1047 million yen		
Main Contractors	DAIHO CORPORATION			
Main Consultants	ECOH CORPORATION/KYOKUYO CO., Ltd (JV)			
Basic Design	"Basic Design Report for the Project for the Improvement of Fishery Port in Cotonou," ECOH CORPORATION/KYOKUYO CO., Ltd (JV), August 2003			
Related Projects (if any)	<ol style="list-style-type: none"> <li>1. 2004 ~ present: A total of three fishery experts were dispatched to the Department of Fisheries. Following the assignment of a fishery technical adviser in 2004, a fishery administrative advisor was assigned in 2008 to assist in managing and maintaining this project.</li> <li>2. 2005: One technician was dispatched to receive training in freezer maintenance in Japan. In addition to the ordinal training, the technician had the opportunity to learn how to install/maintain the actual freezer with a dispatch to Benin to observe its installation/dismantling. This was made possible thanks to the coordination between the fishery adviser and the manufacturer.</li> <li>3. A fishery coordinator was dispatched to JICA Senegal office.</li> <li>4. 2008~present: Four Japan Overseas Cooperation Volunteer (JOCV) were dispatched to indirectly assist in the management of Cotonou Port (specifically assisting the already established women's fishery cooperative in micro-credit management [rural development], promoting the sales of processed products [home economics], establishing and managing a daycare center [youth activity], and obtaining fishery statistics [statistics]).</li> <li>5. 1988: The first grant aid for fishery equipment was given to the Department of Fisheries.</li> <li>6. 1994: The second grant aid for fishery equipment to the Department of Fisheries.</li> </ol>			
Project Background	<p>Marine products are the important sources of animal protein (30-50%) for the Beninese. However, they consume about only 8kg of fishes annually. To meet the national demand, the Republic of Benin imports about 20,000MT of frozen fish, which aggravates the country's foreign currency balance. Cotonou Port is a hub for coastal fisheries, and unloads about 1/5 of its catch. Furthermore, Cotonou Port is a center of small-scale fishery in which 36% of national small fish boats concentrate. On the other hand, Cotonou Port faces various issues: the increase in the number of commercial ships affects the safety and navigation of fish boats; the operational capacity remains low due to the lack of infrastructure such as landing and unloading facilities; and fish prices fall because the shortage of ice reduces the fish's freshness.</p>			
Project Objective	To construct unloading facilities and equip distribution facilities such as ice production capacity in order to enhance the efficiency of small-scale fisheries, and to improve the freshness of marine products and to stabilize the supply of fish for the inland population.			
Output[s] (Japanese Side)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p>&lt;Facility&gt; Unloading pier of pirogues, pirogue storage site, bank protection, block for disposal of goods, block for multipurpose common usage, block for office, ice-making plant and freezer, block for electricity facility</p> </td> <td style="width: 50%; border: none;"> <p>&lt;Equipment&gt; Ice-making plant and storage, equipment for disposal of goods, freezer</p> </td> </tr> </table>		<p>&lt;Facility&gt; Unloading pier of pirogues, pirogue storage site, bank protection, block for disposal of goods, block for multipurpose common usage, block for office, ice-making plant and freezer, block for electricity facility</p>	<p>&lt;Equipment&gt; Ice-making plant and storage, equipment for disposal of goods, freezer</p>
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### II Result of the Evaluation

Summary of the evaluation
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• This project has been highly relevant with the country's development plan and development needs both at the time of planning and ex-post evaluation, as well as Japan's ODA policy at the time of planning; therefore, its relevance is high. This project has generally achieved its objectives and has generated various positive indirect effects; therefore, its effectiveness is high. Both the project period and project costs were within the plan; therefore, the efficiency of the project is high. Furthermore, the project does not have any specific structural, technical, and financial problems nor does the executing agency have any O&M problems. Therefore, the sustainability of the project effect is high. The joint efforts with experts and JOCV also particularly helped to enhance the sustainability of this project. In light of the above, this project is assessed as highly satisfactory.

<Recommendations to the Department of Fisheries>

- 1) In order to enhance financial sustainability, it is recommended that a plan for operation and maintenance (hereinafter referred to as, "O&M") and its expenditures be devised.
- 2) In order to enhance the financial sustainability, it is recommended that a corporate accounting system be introduced as planned, with the assistance of the fishery administrative advisor.
- 3) In order to strengthen the technical sustainability, it is recommended that a freezer technician be trained to ensure that a substitute is available.
- 4) In order to improve the operational efficiency at the block for multipurpose common usage, it is recommended that a mechanism for coordinating activities be considered.

<Recommendations to JICA>

- 1) It is expected that JICA will contribute to the introduction of the corporate accounting system by supporting the fishery administrative advisor.
- 2) If the Cotonou small-scale fishery port (Port de Pêche Artisanale de Cotonou, hereinafter referred to as, "POPAC") requests that the manufacturer provide training to train a freezer technician, it is recommended that JICA assist in coordinating with POPAC and the manufacturer by providing information.

<Constraints of this evaluation study>

• This evaluation study is a simplified version, and the evaluation was based solely on the data obtained in a review of documents, questionnaires given to the executing agency and to the fishery administrative adviser, as well as questionnaires given to the Japanese consultants. Accordingly, the data that could be confirmed through direct observation (such as the use of the donated facilities and equipment) was assessed based on responses to questionnaires by the executing agency and data/photos provided by the fishery administrative advisor. Moreover, the primary data forming the basis for the indicators in the questionnaire responses was not confirmed. Due to the lack of a field survey, there was no opportunity to hold discussions with the executing agency regarding the recommendations.

• At the same time, the reports of the advisor in the past were used as information sources in a review of documents. When there was a discrepancy between the data submitted by the executing agency and the fishery adviser now on site, we verified the information by sending additional questionnaires. Furthermore, regarding the extent to which an impact had been generated, we used the data/information based on the beneficiary surveys (about 25 fishermen and about 100 middlemen) conducted by the same fishery advisor. Accordingly, we were able to conduct a more detailed evaluation compared to other grant aid projects in the same package, whose evaluations were based solely on JICA's internal documents at the time of the project completion, on questionnaires given to the executing agency and on the questionnaire given to the Japanese consultants.

## 1 Relevance

### (1) Relevance with the Development Plan of Benin

When the project was planned, Benin's National Economic and Social Development Plan (2000) prioritized the following issues in the area of agriculture, livestock and fishery: (1) contribution toward the acquisition of foreign currency, (2) contribution toward domestic food self-sufficiency, (3) the creation of employment opportunities, and (4) sustainable use of natural resources. Accordingly, the Department of Agriculture, Livestock and Fisheries initiated an operational policy which includes the development of small-scale fisheries and better use of marine products. A five-year plan (1998-2002) prepared by the Department of Fisheries included measures to promote the effective use of fish resources; the operational plan of the Department of Fisheries established in 2004 includes the improvement of small-scale fisheries. Moreover, the national policy of fishery/cultivation (2010) prioritized the plan and the implementation of management/maintenance of fishery ground. Thus, this project was consistent with Benin's development policy both at the time of planning and the ex-post evaluation.

### (2) Relevance with the Development Needs of Benin

Marine products are an important source of animal protein (30-50%) for the Beninese. However, the republic of Benin imports about 20,000MT of frozen fish. At the time the project was planned, Cotonou Port was a hub for coastal fisheries and a center of small-scale fishery. On the other hand, the Cotonou Port faced various issues: congestion due to the increase in the number of commercial ships; low operational capacity due to the lack of infrastructure such as landing and unloading facilities; and falling fish prices because the shortage of ice reduces freshness. At the time of the ex-post evaluation, the improvement of ice making capacity was still one of the country's development needs. For this reason, the project was consistent with Benin's development needs both when the project was planned and when the ex-post evaluation was conducted.

### (3) Relevance with Japan's ODA Policy

According to the ODA Country Cooperation Data Book 2002, the Government of Japan planned to implement the grant aid cooperation mainly in the sector of agriculture and basic human needs, to accept trainees from fishery and forestry sectors, and to implement technical cooperation such as Development Study. Therefore, it can be said that this project was consistent with Japan's aid policies for Benin when the project was planned.

This project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy; therefore, its relevance is high.

## 2 Efficiency

### (1) Project Outputs

The outputs of the Japanese side were as planned.

### (2) Project Period (Project Inputs)

The planned project period was 26 months, whereas the actual period was 27 months when including the first and last months of the project. Thus, the project period was shorter than planned (98 % of the planned).

### (3) Project Cost (Project Inputs)

The planned project cost was 1049 million yen, whereas the actual cost was 1047 million yen. Thus, the project cost was lower than planned (99.8% of the planned amount).

Both the project period and project costs were within the plan; therefore, the efficiency of the project is high.

## 3 Effectiveness / Impact

### (1) Quantitative Effects

Regarding "time required for unloading, disposal of goods and distribution (at the time of high fishing season)," the Department of Fisheries reported that, in 2006-2009, the indicator (1) time for transport, met the 2010 target of 10 minutes, and that all other indicators exceeded their respective targets: indicator (2) unloading time (target of 54 minutes vs. actual 45 minutes), indicator (3) time for disposal of goods (target of 50 minutes vs. actual 40 minutes), indicator (4) distribution time (target of 50 minutes vs. 30 minutes), and indicator (5) total time (target of 164 minutes vs. actual 125 minutes).

All facilities and equipments are sufficiently utilized. Particularly, the ice making machine can be judged as being fully utilized because, according to the former fishery technical advisor, it was reported that 3MT of ice was sold on average daily in 2007, and according to the beneficiary survey conducted by the present advisor, at the ex-post evaluation the demand for ice exceeded the supply capacity of ice making machine in the high fishery season. Furthermore, the utilization rate of Cotonou Port by small-scale fishery boats is higher than the rate at the time of planning (not set as outcome indicator). The Department of Fisheries reported that an average of 36% of small-scale fishery boats annually were using the Cotonou Port at the time of planning (no respective data available for low/high fishery season), while this rate increased to about 45% during the low fishing season and to about 70% during the high fishing season at the time of the ex-post evaluation. Even though we could not obtain data showing a change in the number of users of Cotonou Port who are the direct beneficiaries of this project, the executing agency and the fishery administrative advisor reported that the number of users of Cotonou Port increased dramatically compared to before. On the other hand, the block for multipurpose common usage is very crowded, and thus the operational efficiency is low (see attached photos). Because of the increase in the number of users and POPAC center was constructed on the sand beach where fishermen used to repair their fish nets, they began to fix their nets inside.

### (2) Impacts (Impacts on the natural environment, Land Acquisition and Resettlement, Unintended Positive/Negative Impact)

The number of people in Cotonou who are indirect beneficiaries increased from 75,000 at the time of planning to 120,000 at the time of the ex-post evaluation. Moreover, as regards the expected positive impacts, the executing agency reported that, thanks to the project, the availability of ice had the following effects: higher sales of fresh fish, and 90% decrease in the loss of marine products in the last four years, which in turn increased the income of relevant people, although there is no statistical data for this. Furthermore, according to the beneficiary survey targeting fishermen and middlemen which was conducted by the fishery administrative advisor to assist this ex-post evaluation, the implementation of hygiene training and the establishment of a cleaning day by the users of Cotonou Port and of a weekly hygiene day enhanced awareness on quality control for fish and on maintenance of an hygienic environment in working areas, which contributes to a decrease in damage to health caused by spoiled fish. However, no quantitative data was obtained regarding the decrease in the health damage caused by spoiled fish. In addition, as a positive indirect effect which was not anticipated, the country of Benin was approved to export marine products to the EU in 2009, and now Cotonou Port is exporting mainly shrimp to the EU. Later on, POPAC became a model for the unloading site which was constructed at Lake Amenu with Belgian assistance.

As for the environmental impact, the Benin conducted an environmental assessment and found no negative impact. Furthermore, there were no particular problems in the land acquisition process and no residents were relocated.

This project has largely achieved its objectives; therefore, its effectiveness is high.

## 4 Sustainability

#### (1) Structural Aspects of Operation Maintenance

While the fishery cooperative managed the operation of the existing facility, the management office established by the Department of Fisheries managed the port facility newly established by the project (POPAC). The main management staff from the management office were dispatched by the Department of Fisheries, and the workers were newly employed. The number of staff at the management office has been increased compared to the number at the time of planning. Initially, it was planned to establish a public corporation in the future by consolidating the management office and the fishery cooperative to operate the entire Cotonou Port. However, it was judged that the public corporation would not be able to provide a quick response to the needs in the field. Instead, at the time of the ex-post evaluation, a participatory operational management system had been put in place in the form of a consultative committee consisting of the Department of Fisheries, the management office, the head of Cotonou Port, the fishery cooperative and middlemen cooperative. At the time of planning, management and training for the beneficiaries (fishery and middlemen, among others) by the management office was pointed out as the important assumptions. However, the consultative committee is playing its role. Moreover, the previous and current fishery experts are continuously assisting in improving its management. Thus, no particular problems are found in the structural aspects of operational maintenance.

#### (2) Technical Aspects of Operation Maintenance

Outside of the project, one freezer technician was given training in “freezer maintenance” in Japan. Thanks to the coordination between the fishery technical advisor at the time and the freezer manufacturer, the freezer technician was able to learn about installation and maintenance for the freezer equipment that would actually be used. Furthermore, the same technician participated in training in freezer maintenance in a third country (Senegal); thus, it is judged that this person obtained a sufficient level of technique. A technician from the Japanese manufacturer was invited to Africa to overhaul the Japanese machines (freezer for ice and the freezer for storage), through mediation by the fishery technical advisor (inquiries concerning when the Japanese manufacturer’s technicians would visit Africa and requests for such visits). On the other hand, the current fishery administrative advisor reported that, out of two freezer technicians, the level of one technical assistant (contract worker) is not sufficient, and it is necessary to train the technical assistant in order to establish a substitute system so that repairs can be made at any time.

#### (3) Financial Aspects of Operation Maintenance

POPAC, the target of this project, has had a surplus since the opening of the facility, without receiving any financial assistance from the government.

With the assistance of the past fishery technical advisor, POPAC has been saving 10% of its sales as the depreciation cost (O&M reserves). The cost of the overhaul for the Japanese machines (the freezer for ice and the freezer for storage) and for spare parts are covered using these depreciation cost. After deducting the cost of the above spare parts (8 million FCFA), the amount of the remaining depreciation is 9 million FCFA at the time of the ex-post evaluation, which is judged to be sufficient at this moment. If 10% of the sales is set aside continuously, it is highly possible to secure a sufficient level of savings to cover the cost for the maintenance of facilities and their renewal. However, plans for O& M and its expenditures have not been prepared.

In September 2008, after deducting the depreciation costs, the profit was distributed among the fishery cooperative, the Department of Fisheries, the Cotonou autonomous port and the Cotonou small-scale fishery port (POPAC: the target of the project). The distribution ratio was 45%, 30%, 15% and 10%. The dividends are used to build a store in which to sell fishing nets, personnel cost and facilities (emergency generators in the event of power cuts), for example. On the other hand, balance sheets are not prepared and bank statements are not disclosed. Thus, in order to ensure that the balance, including the surplus, is appropriate and transparent, and to improve the sustainable management of the port, corporate accounting is currently being introduced with the assistance of the fishery administrative advisor.

#### (4) Current Status of Operation Maintenance

As explained above, the Department of Fisheries reported that the O&M of facilities and equipments are in very good or good condition, although there is a problem of space in the multipurpose common usage room, which became overcrowded. Moreover, according to the Department of Fisheries, recommendations made at the time of planning, such as “keep track of fishery statistics, ascertain usage of facility, manage safety of landing pier and unloading pier, carry out regular maintenance checks of facilities, and carry out O&M activity of facility,” and other recommendations made at the time of inspection, such as “maintain and dredge, maintain and check ditch and sewage disposal facility, set up emergency generator for power cuts,” are all being implemented.

No major problems have been observed in the operation and maintenance system; therefore, the sustainability of the project effect is high.