

Internal Ex-Post Evaluation for Technical Cooperation Project

conducted by Morocco Office/ February, 2014

Country Name	Improvement of Value Adding Method for Fisheries Products
Kingdom of Morocco	

I. Project Outline

Background	<p>Fisheries of the Kingdom of Morocco (hereinafter referred to as “Morocco”), brought in the largest catch in Africa and the fisheries sector as a whole absorbed approximately 400,000 workers, including surrounding industry such as seafood processing. However, the catch of fish was declining because of the over-fishing in the past years. It was important to utilize the limited marine resources effectively through the diversification of processed products, improvement of quality and freshness as well as exploration of unused resources, although marine resources in Morocco were marketed in considerably limited forms (i.e. primary or simple secondary processed products, such as frozen, canned, bottled and powdered products). In addition, the EU, the major importer of Moroccan fisheries products (approximately 42% of gross exports), requested Morocco to comply with food safety standards, which had become an urgent issue. In order to solve these problems, the government of Morocco established the Seafood Processing Technology Center (“le Centre Spécialisé de Valorisation et de Technologie des Produits de la Mer” hereinafter referred to as “CSVTPM”) in February 2003 with Japan’s grant aid cooperation as one of the centers of National Research Institute of Marine/Fisheries (INRH), to assist efforts to improve the value adding method of the fisheries processing sector, including fishermen. However, CSVTPM had neither sufficient experiences in terms of processing technologies development, hygiene and quality control, nor sufficient linkage and cooperation with processing plants and fishermen.</p>				
Objectives of the Project	<ol style="list-style-type: none"> Overall Goal: New processed fish products and measures for quality and sanitary control, developed with the cooperation of the CSVTPM, are applied in the fisheries sector. Project Purpose: Proposal for value adding methods for fisheries products are compiled through the CSVTPM’s activities. Assumed steps for achieving the project goals: The project i) enhances capacities of counterpart agency (CSVTPM) in the field of fisheries products processing and sanitary and quality control, ii) produces trail processed fisheries products jointly with enterprises and iii) prepares draft guidelines for better sanitary and quality control. Consequently, processed fisheries products developed in cooperation with CSVTPM are marketed and new sanitary and quality control technologies, for which CSVTPM conducts researches and development in the course of the project, are introduced to the fisheries industry. 				
Activities of the project	<ol style="list-style-type: none"> Project site: The entire Morocco (Agadir as a base of experiments and researches) Main activities: <ul style="list-style-type: none"> - Training for technicians of enterprises by counterpart personnel (C/P), who receive technical instructions on production of processed fisheries products and sanitary and quality analysis, as well as implementation of joint developments and experiments of new products and establishment of quality control system at CSVTPM’s processing plant. - Proposal of draft training plan for fishermen concerning sanitary and quality control technologies of fisheries in selected model small fishing villages. - Strengthening of CSVTPM’ public relations activities, technical and information system, cooperation with agencies concerned as well as preparation of CSVTPM’s mid-term activity plan (draft). Inputs (to carry out above activities) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Japanese Side 1) Experts: 15 persons 2) Trainees received: 5 persons 3) Equipment: Equipment for processing and analysis, vehicles for extension, etc. </td> <td style="width: 50%; vertical-align: top;"> Moroccan Side 1. Staff allocated: 12 persons 2. Land and facilities: Office space for Japanese experts (two rooms at CSVTPM) 3. Local cost, 28 million yen for electricity, consumables, maintenance and management of land/facilities </td> </tr> </table> 			Japanese Side 1) Experts: 15 persons 2) Trainees received: 5 persons 3) Equipment: Equipment for processing and analysis, vehicles for extension, etc.	Moroccan Side 1. Staff allocated: 12 persons 2. Land and facilities: Office space for Japanese experts (two rooms at CSVTPM) 3. Local cost, 28 million yen for electricity, consumables, maintenance and management of land/facilities
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Project Period	June, 2005 to June, 2009	Project Cost	245 million yen		
Implementing Agency	National Research Institute of Marine/Fisheries (INRH) Seafood Processing Technology Center (CSVTPM)				

Cooperation Agency in Japan	Ministry of Agriculture, Forestry and Fisheries
Related Projects (if any)	Japan's cooperation: Establishment of Extension System for Artisan Fisheries in Morocco (TC, 2001-2005), Project for National Fisheries Laboratory (GA, 2007-2009), Project for Central Laboratory of Development and Technology Center of Fisheries Products (GA, 2001-2003), dispatch of individual experts (promotion of fisheries and management of marine resources, 2001 to present)

II. Result of the Evaluation

1 Relevance

This project has been highly relevant with Morocco's development policy "poverty alleviation, reduction of regional gap, the value added and improvement of sanitary and quality control", which is incorporated in the project, as set in policy documents including the National Initiative for Human Development (2006-2010), the Action Plan for Fisheries Sector Development (2005-2007) and the Strategy for Fisheries Development (2009-2020), development needs "efficient and highly value-added fisheries", as well as Japan's ODA policy; JICA Country Program for Morocco (2004). Therefore, relevance of this project is high.

2 Effectiveness/Impact

The project focuses on proposal of value adding methods for fisheries products through the CSVTPM's activities. Indicators which measure the achievement of the project purpose is (i) proposal of at least 3 types of trial products for merchandize, (ii) proposal of improvement measures for sanitary and quality control guideline for Morocco, and (iii) continuous provision of technical services for the private sector by CSVTPM. As to (i) and (ii), researches were in the process at the stage of the project completion. At the stage of ex-post evaluation, trial products proposed by the project, such as sardine sausage, were proposed to the fisheries industry and won Innovation/Technical Research and Development Contest. Thus, this indicator has been fulfilled to some extent. For (ii), although the results of researches were presented to individual enterprises, they were not fully incorporated in guidelines as supplementary information. At the time of ex-post evaluation, personnel of CSVTPM did not understand what "supplementary information to the guideline is incorporated" actually means. CSVTPM explained that the both sides of Japan and Morocco had not clearly recognized that the research results should have been incorporated in the guidelines at the beginning of the Project. It can be inferred that both the Japanese side and the Moroccan side did not fully build common recognition regarding the establishment of the target at the planning stage and during the project. As for (iii), at the time of ex-post evaluation, it was confirmed that CSVTFM continuously provide technical services for the private sector and that it has made an agreement with Agadir Halio Pole (AHP) to establish cooperation system with the private sector and strengthen the cooperation activities. However, no concrete activity has not yet been conducted.

As for the overall goal, the indicators to measure the achievement level are (i) development of several numbers of processed fish with the contribution of CSVTPM's technologies for merchandize, (ii) introduction of several numbers of technologies for quality and sanitary improvement of fish products to the fisheries industry, (iii) implementation of artisanal fish processing as well as improvement of fish quality in small fishing villages. As to (i), whitefish paste has been developed and marketed by the processor in Casablanca. For (ii), although researches in terms of quality improvement were conducted, the results of these researches have not been incorporated into product labels, training materials and manuals as planned. As for (iii) dried mussels are newly produced as a processed product in small fishing villages by the project's survey. After the project completion, CSVTFM, with the support from the INPH Agadir Center, prepared the manual to disseminate the mussels processing technique and held the seminars for women engaged in the process. However, at the time of ex-post evaluation, CSVTFM does no support quality control, which is required for commercialization and sales. In spite of such situation, the fisheries industry recognizes the importance of CSVTPM and universities have requested CSVTPM for joint practices and training for qualification, and theme of master's and doctor's degrees.

In this way, this project has enhanced capacities of CSVTPM, to some extent, in the fields of processing and sanitary and quality control but has not fully achieved the project purpose at the time of project completion, although shown some progress at the time of ex-post evaluation. As for overall goal, processed fisheries products developed through the project were marketed and technologies and knowledge of CSVTPM have started to be utilized in the fisheries industry. After the project completion, cooperation between CSVTPM and the industry has been continued; however, effects on the entire fisheries industry, including fishermen, were limited. Therefore, effectiveness/ impact of the project is fair.

Achievement of project purpose and overall goal

Aim	Indicators	Results
(Project Purpose) Proposal for value adding methods for fisheries products are compiled through the CSVTPM's activities.	1) At least 3 types of trial products (*) are proposed for merchandize. *products jointly developed with enterprises Note: The indicator was modified to "At least 3 types of trial products (*) are proposed for merchandize" during the extension period.	(Project completion) Joint research and development were conducted for production of sardine sausages and patty using pelagic fish. Partly achieved. (Ex-post evaluation) Sardine sausage of SUNRISE (prize winning product of the 5 th Innovation/Technical Research and Development Contest), sardine patty of COPELIT and whitefish paste of Somafaco were proposed as trial products. Production and proposal of trial products will be continued.

	<p>2) Improvement measures (**) for sanitary and quality control guideline for Morocco is proposed.</p> <p>**supplementary information to promote scientific grounds of the existing sanitary guideline</p>	<p>(Terminal evaluation) The research on histamine control for bottled anchovies has been in process. Proposals of measures for improvement have not been attained.</p> <p>(Ex-post evaluation) The results of CSVTPM's researches on "histamine control mechanism" were incorporated into the reports and product manuals. Although analysis of automatic control of cadmium is in process, proposals of measures for improvement have not been attained. Therefore, indicator 2 has not been achieved.</p>
	<p>3) CSVTPM continues to provide technical services for the private sector. (The indicator was added during the extension period.)</p>	<p>(Project completion) CSVTPM continues providing technical service such as guidance on food development/cooperation with the private sector and support for such cooperation based on the needs of the industry and enterprises.</p> <p>(Ex-post evaluation) Information exchanges between CSVTPM and the private sector, such as oil processing firms and canning firms has been continued but not active. On the other hand, it has made an agreement with Agadir Halio Pole (AHP), which is the competitive base of processed fisheries products industry and joint activities will be conducted in 2014 in the fields of research, training and public relations.</p>
<p>(Overall goal) New processed fish products and measures for quality and sanitary control, developed with the cooperation of the CSVTPM, are applied in the fisheries sector.</p>	<p>1) Several numbers of processed fish developed with the contribution of CSVTPM's technologies are merchandized.</p>	<p>(Ex-post evaluation) Whitefish paste has been marketed by the processor in Casablanca.</p>
	<p>2) Several numbers of technologies for quality and sanitary improvement on fish products are introduced to the industry. (For instance, the results of the researches are incorporated into product labels, textbooks and manuals.)</p>	<p>(Ex-post evaluation) Researches, such as "survey on influences of plastic containers in terms of creation of histamine of small pelagic fish", "assessment of contamination by heavy metal (cadmium) of pelagic fish that are landed in the ports of southern region", were conducted. The results of these researches are planned to be incorporated into reports and manuals of CSVTPM. The results have not been incorporated into product labels, training materials and manuals. Therefore, indicator 2 has not been achieved.</p>
	<p>3) Artisanal fish processing is occurred in local communities.</p>	<p>(Ex-post evaluation) Dried mussels were newly produced (without support from CSVTFM).</p>
	<p>4) Quality of fish harvested by artisanal fishers is improved.</p>	<p>(Ex-post evaluation) Preservation has been improved by drying of mussels.</p>

Source : Project Completion Report, Interviews with counterparts

3 Efficiency

While the inputs were mostly appropriate for producing the outputs of the project, both the project cost and the project period were slightly exceeded the plan (ratio against the plan: 136%, 133%) because the project period was extended. The extension period was appropriate to develop and market several new processed fisheries products. Therefore, efficiency of the project is fair.

4 Sustainability

In the policy aspect, improvement of value-added products and sanitary and quality control introduced by this project are still given importance in the current development policy in Morocco as the Strategy for Fisheries Development (2009-2020) aims at the enhancement of competitiveness by improvement of added value. Institutionally, Development Strategy of INRH was established based on the Strategy for Fisheries Development and specifies the improvement of value-added of fisheries products processing as one of six (6) institutional roles. CSVTPM was institutionally reformed and expected to play an important role in supporting the enhancement of value-added of fisheries products. Necessary personnel are allocated for this purpose and the institution of the implementing agency is established. As for the technical aspect, although personnel of CSVTPM have necessary technical level and have accumulated experiences through cooperation with enterprises not only concerning sanitary and quality control but concerning applied technologies such as smoking, sanitization by heat-treatment, marinating and so forth, there are some problems in terms of maintenance and management, for instance, there is no agency of the manufacturer for the existing equipment for fermentation at the fisheries bio-technology laboratory of CSVTPM. On the financial aspect, the insufficient budget of INRH has constrained the activities of CSVTPM. In order to address priority issues, the Government of Morocco has been pushing forward with the financial reform to spread a part of budget for the Department of General Affairs and the Department of Finance. It is expected that the activities of CSVTPM will be smoothly carried out for achieving a partial financial self-reliance. In addition, it is necessary to establish a system for cost covering of technical advices about seafood processing for the private sector. After the project completion, joint activities with the private sector were not very active and to improve the situation, Agadir Halio Pole (AHP) that aims to activate the fisheries products processing sector was established in 2011. AHP has already prepared the activity plans regarding research, training and public relations and takes an important initiative in keeping and extending the effects generated by the project.

From these findings, it is considered that the project has some problems in technical and financial aspects of the implementing

agency; therefore, sustainability of the project is fair.

5 Summary of the Evaluation

This project has partially achieved the project purpose “proposal of value adding methods for fisheries products through the CSVTPM’s activities” by the capacity enhancement of CSVTPM in the fields of fisheries products processing and sanitary and quality control, however, the degree of its achievement is limited at the time of ex-post evaluation. As for overall goal, although new processed fish products developed with the cooperation of the CSVTPM have been marketed, improved technologies have not been introduced. Also, processed products have been produced in local communities, however, there was no support from CSVTPM and the effects were limited. As for sustainability, this project is still given importance in the current development policy and the institution of the implementing agency is established. However, there are problems in terms of technical and financial aspects due to unsatisfactory maintenance and management of equipment and insufficient cost for extending fisheries product processing technologies. As to efficiency, both the project cost and the project period exceeded the plan due to the extension of the project period for joint research and development activities of the new products with the private sector.

In the light of above, this project is evaluated to be partially satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

It is necessary for CSVTPM to more actively exchange views and promote cooperation on the new products with the fisheries industry, particularly, fishermen and to further support the production of processed products in the local communities.

Lessons learned for JICA

- In Morocco, the consumption of fish has been increasing and the needs for value-added fisheries products have been enhanced, however, the needs for processed marine products depends on how the private sector prioritize diversification of processed products and development of new markets. It is important to commence a project at a proper timing after assessing the changes in cultural backgrounds, institutional system for preparation and capacities of absorbing new technologies, when a technical cooperation is started.
- Interviews with personnel concerned were conducted with regard to the indicator to assess the degree of achievement of the project purpose “improvement measures for sanitary and quality control guideline for Morocco is proposed”. However, the personnel did not recognize that the results of researches by CSVTPM had to be reflected in the existing guidelines. Although the reflection was a quite important part of the project purpose, it is considered that the issue had not fully been discussed among the personnel concerned at the time of establishing targets and that the terminal evaluation was done without common understanding. It is essential to fully consider the logic of the project framework.
- This project was extended for one year based on the result of the terminal evaluation, however, evaluation based on Development Assistance Committee (DAC)’s five evaluation criteria was not conducted at the end of the extended period. It is considered better to assess the degree of the achievement based on DAC’s criteria at the end of extended period for smoothly conducting the ex-post evaluation.



CSVTPM



Fisheries products processing unit



Microscope of microbiology laboratory