

## 付 属 資 料

1. MM及び合同評価レポート
2. PDM-1（英文、和文（PDM-0 からの変更履歴付記））
3. PO-0、PO-1（英文）
4. 主要な技術協力成果品リスト（和文）
5. 評価グリッド（和文）
6. 事前質問票フォーム
7. CSVTPM 中期活動計画（2008～2011 年）  
（仏文、和文仮訳（本文のみ））



**MINUTES OF MEETING  
BETWEEN THE JAPANESE TERMINAL EVALUATION TEAM  
AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF  
THE KINGDOM OF MOROCCO  
ON JAPANESE TECHNICAL COOPERATION FOR  
THE PROJECT ON IMPROVEMENT OF VALUE ADDING METHOD  
FOR FISHERIES PRODUCTS**

The Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched the Japanese Terminal Evaluation Study Team on the Technical Cooperation Project on “Improvement of Value Adding Method for Fisheries Products”, headed by Mr. Takashi MORI, to the Kingdom of Morocco from January 14 to February 2, 2008.

The Joint Evaluation Team (hereinafter referred to as “the Team”), which consists of four members from JICA and four members from the Moroccan side, was jointly organized for the purpose of conducting the terminal evaluation and preparation of necessary recommendations to the respective governments.

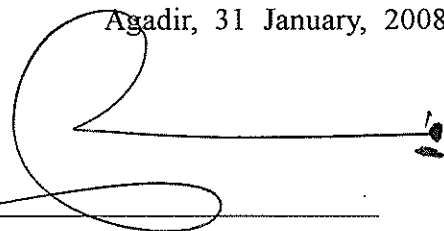
After intensive study and discussion on the activities and achievements of the project, the Team prepared the Joint Evaluation Report, which was presented to the Joint Coordinating Committee (hereinafter referred to as “the Committee”).

As the result of the discussions, the Committee agreed to report to their respective Governments the matters referred to in the document attached hereto.

Agadir, 31 January, 2008

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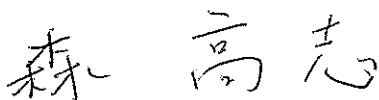
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**JOINT TERMINAL EVALUATION REPORT  
ON  
THE PROJECT ON IMPROVEMENT OF  
VALUE ADDING METHOD FOR FISHERIES PRODUCTS  
IN MOROCCO**

Agadir, 31 January 2008



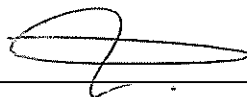
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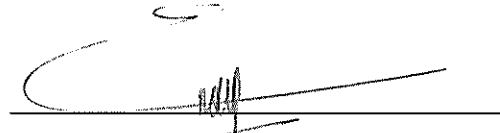


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## ABBREVIATIONS

CNPCM	Chambre Nationale de la Pêche Côtière du Maroc
CTS	Comité de Technique et Scientifique
C/P	Counterpart
CPMA	Chambre des Pêches Maritimes de l'Atlantique Centre Agadir
CSVTPM	Le Centre Spécialisé de Valorisation et de Technologie des Produits de la Mer
DIP	Direction des Industries de la Pêche Maritime
DPM	Délegation des Pêches Maritimes
FENIP	Fédération Nationale des Industries de Transformation et de Valorisation des Produits de la Pêche
FIPROMER	Fédération Industrielle des Produits de la Mer
INRH	L'Institut National de Recherche Halieutique
ISPM	L'Institut Supérieur des Pêches Maritimes
JCC	Joint Coordinating Committee (Comité Conjoint de Coordinat)
LARV	Laboratoires d'Analyses et de Recherches Vétérinaires
MAPM	Ministère de l'Agriculture et de la Pêche Maritime
ONP	L'Office National des Pêches
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussions
R&D	Research and Development

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**1. Introduction**

**1.1 Objectives of the Study**

The objectives of the terminal evaluation study are:

- to examine and evaluate the progress and achievement of the project, and evaluate it through the 5 criteria (Relevance, Effectiveness, Efficiency, Impact and Sustainability), and
- to propose recommendations for the remaining period (until 10<sup>th</sup> June 2008) and after the end of the project.

**1.2 Members of the Joint Evaluation Team**

The project was evaluated by the Japanese and Moroccan Joint Evaluation Team (hereinafter referred to as the “team”). The team was composed of four members from the Japanese side and four members from the Moroccan side respectively. The members are as follows:

**Japanese Team**

No.	Name	Job title	Occupation
1	Mr. Takashi MORI	Team Leader	Senior Assistant to Director General, Rural Development Department, JICA
2	Dr. Koji NAKAMURA	Seafood Processing	Ph.D in Fisheries Science
3	Ms. Ryoko HOSONO	Evaluation/Analysis	KRI International Corporation
4	Ms. Shizuka ONISHI	Project Planning	Program Officer, Group II, Rural Development Department, JICA

**Moroccan Team**

No.	Name	Occupation

*m* *V. F. E*

1	Ms. Laila BENSMAIL	Chief of Marine Microbiology Laboratory / in charge of Quality System INRH Casablanca
2	Mr. Brahim BOUDINAR	Director ISPM Department of Marine Fisheries
3	Mr. Aomar BOURHIM	Staff member Direction of Cooperation and Juridical Affairs, Department of Marine Fisheries
4	Ms. Khadija TOUZANI	Chief of Service of Commercial Production and Extension Direction of Marine Fisheries Industry Department of Marine Fisheries

### 1.3 Schedule of the Study

Date			Main mission	Evaluation/Analysis
Jan	15	Tue		09:00 Meeting with JICA Office 10:30 Courtesy visit to MAPM (move to Casablanca) 14:30 Visit to FENIP 16:30 Courtesy visit to INRH Casablanca
	16	Wed		05:00 Port and fish market in Casablanca 10:30 GARDEN SEA'S (fresh/frozen product) 13:00 MARISCOS (frozen products) (move to Agadir)
	17	Thu		09:00 CSVTPM 15:00 AMAPEX (frozen products)
	18	Fri		09:00 BELMA (canned products) 11:00 MIPROMER (frozen products) 15:00 AVEIRO (frozen products)
	19	Sat		08:00 Visit to ONP Agadir 10:00 AMANDINE (frozen products)
	20	Sun		Elaboration of report
	21	Mon		10:00 CONSERNORS (canned products) 15:00 FMCA (bottled anchovy)



22	Tue	09:00 Meeting with JICA Office 10:30 Courtesy visit to MAPM 15:00 Discussion at ONP Casablanca 16:30 Discussion at INRH Casablanca	09:00 Field observation of fish market 15:00 CIBEL (fish meal) 16:00 SIALCO (bottled anchovy)
23	Wed	(move to Agadir) 14:00 Courtesy visit to DPM Agadir 15:00 Joint Evaluation Meeting at CSVTPM	10 :00 AGADIR OCEAN (bottled anchovy)
24	Thu	09:00 Discussion/field observation at CSVTPM 16:00 Discussion with FIPROMER	
25	Fri	08:30 Regional Council of Souss Massa Dria (Pôle de Compétitivité d'Agadir) 10:30 Visit to LARV Agadir 14:00 Discussion with Joint Evaluation Team and CSVTPM	
26	Sat	07:00 Field survey in the model artisanal fishery village (Immesouane) 15:00 Discussion within Joint Evaluation Team	
27	Sun	Elaboration of draft joint evaluation report 18:00 Discussion within Joint Evaluation Team	
28	Mon	09:00 Confirmation of draft report with Joint Evaluation Team and CSVTPM	
29	Tue	09:00 Discussion on draft report with Joint Evaluation Team and CSVTPM	
30	Wed	Revision and final confirmation of evaluation report	
31	Thu	11:00 Joint Coordinating Committee (move to Rabat)	
Feb 1	Fri	13:30 Report to JICA 15:00 Report to Embassy of Japan Report to MAPM	

## 2. Outline of the Project

### 2.1 Background of the Project

In the Kingdom of Morocco (hereinafter referred to as "Morocco"), agricultural, forestry and fisheries products constitute 24% of its exports. In particular, fisheries bring in the largest catch in Africa (around 960,000 tons in 2002), which accounts for approximately 16% of its gross national export (in 2002). The number of people engaged in fishing activities number roughly 210,000, although the fisheries sector as a whole absorbs approximately 400,000 workers, including surrounding industry such as seafood processing.

However, recently the amount of catch has been declining because of the over-fishing in the past years. In 2001 the catch was around 1.1 million tons, which fell to roughly 900 thousand tons in 2003. Regarding the situation, Morocco has enforced regulatory measures, for example

the prohibition of octopus fisheries over a period of eight months in 2004. Along with these measures, it is important to utilize the limited marine resources effectively through the diversification of processing methods, improvement of quality, maintenance of freshness and exploration of unused resources, although currently marine resources in Morocco are marketed in considerably limited forms (i.e. primary or simple secondary processed products, such as frozen, canned, bottled and powdered products which constitute approximately 80% of total products, and fresh fish).

In addition, the EU, the major importer of Moroccan seafood products (approximately 42% of gross exports), has requested that Morocco comply with food safety standards (namely EU standards), which has 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 2004 as one of the centers of INRH, to assist efforts to improve the value adding method of fisheries processing sector, including fishermen. However, CSVTPM neither had sufficient experiences in terms of practical processing, hygiene and quality control, nor had sufficient linkage and cooperation with processing plants and fishermen. Therefore, the government of Morocco requested to the government of Japan a technical cooperation project (hereinafter referred to as “project”) which aims to enhance the capacity of researchers of CSVTPM and organizational system, to carry out research and development in accordance with the needs of the fisheries sector as a whole. The project has initiated at June 2005 as a three-year project, which is planned to terminate in 10<sup>th</sup> June 2008,

## 2.2 Summary of the Project

### **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 (producing, transporting and processing sub sectors).

### **PROJECT PURPOSE:**

Proposal for value adding methods for fisheries products are compiled through the CSVTPM's activities.

### **OUTPUT 1.**

**The CSVTPM's research themes reflect the needs of the fisheries sector.**

Activities:

1-1 Visit fish processing factories to grasp and analyze the problems

1-2 Grasp the problems on hygiene and quality control as well as the response of Morocco which correspond to the needs of the international market

1-3 Examination and follow-up of CSVTPM's research activities

#### **OUTPUT 2.**

**Research ability of the fish processing section of the CSVTPM is enhanced and the potential for new products development is increased.**

2-1 Train the C/Ps on producing processed products (multiple times)

2-2 Prepare manual for manufacturing processed products by the C/Ps

2-3 Workshop for the technicians of the industry on manufacturing processed products by the C/Ps

2-4 New products development trials in collaboration with the industry

2-5 Introduce samples at trade fairs and taste testing sessions

#### **OUTPUT 3.**

**Research ability of the hygiene and quality control section of the CSVTPM is enhanced and hygiene and quality control guideline for Morocco is studied.**

Activities:

3-1 Train the C/Ps on hygiene and quality analysis technique (multiple times)

3-2 Analyze and report the relationship between preservation method and quality change

3-3 Hygienic and chemical analysis of fisheries products (components analysis of the raw material and quality analysis of processed products)

3-4 Conduct trainings and seminars on quality improvement of processed products by the C/Ps

3-5 Introduce the result of the analysis of contents of healthy components of fisheries products at trade fairs and taste testing sessions

3-6 Establish a system of quality management in the pilot processing unit of CSVTPM

#### **OUTPUT 4.**

**Post harvest quality improvement techniques and fishery products processing techniques for artisanal fisheries villages are proposed.**

Activities:

4-1 Study on present quality control and processing situation for harvested fish (study the possible options)

4-2 Select at least one model fishing villages

4-3 Propose a training plan to concerned organizations for the artisanal fishing villagers on fish processing techniques and fish quality control techniques

#### **OUTPUT 5.**

**Management ability of CSVTPM is strengthened.**

Activities:

- 5-1 Public Relations (PR) of CSVTPM's research activities are come to stay
- 5-2 Reinforce a technique and information provision system for fisheries processing sector
- 5-3 Reinforce collaboration with concerned organizations
- 5-4 Draft of medium-term action plan of CSVTPM's is made.

### **3. Methodology of Evaluation**

#### **3.1 Evaluation Procedure**

The evaluation was conducted by the Joint Evaluation Team in accordance with the Record of Discussion (R/D) signed on 6<sup>th</sup> April 2005. The team reviewed the degree of the achievement based on the plans stipulated in the PDM-1 on December 2006. The team also reviewed the project implementation process to identify the pertinent issues which are relevant to the achievement of the Project Objective as well as the Overall Goal. For the evaluation, the following were undertaken: review of reports, documents, publications and other information relevant to the project; discussion and interviews with Counterparts(C/Ps), relevant Moroccan government institutions, private sector organisations; fisheries sector enterprises; and field visits. The results of the findings in terms of achievement are as summarised in Annex 5-1 and Annex 5-2.

#### **3.2 Evaluation Criteria**

The five criteria as explained below were used to evaluate the project. To guide the evaluation, the Evaluation Grid was developed and used to organise the information and analyse the results. The Evaluation Grid and the results are seen in Annex 5-3.

##### **(1) Relevance**

The project is assessed whether it is consistent with the Morocco's government policy for the overall socio-economic development and the target sector, i.e., fisheries industry. The evaluation also reviewed the project's consistency with Japan's government policy of assistance to Morocco. In addition, the adequacy of the project strategy vis-à-vis the development needs of the target sector was also examined.

##### **(2) Effectiveness**

The criterion is to check the degree of the achievement of the Project Purpose and the contribution of the Outputs to the achievement.

##### **(3) Efficiency**

It is to analyse the adequacy of the amount and the quality of inputs for the project including human and financial resources, equipment, training and other items provided both from Moroccan and Japanese sides.

#### **(4) Impact**

It is to estimate the possible direct and indirect effects of the project after 3~5 years later of the project termination. It includes the possibility of achieving the Overall Goal and of incurring other positive and negative effects.

#### **(5) Sustainability**

Sustainability refers to the extent to which the intended effects of the project can be continuously generated by maintaining the functions facilitated by the project by the Moroccan side.

### **4. Achievement**

#### **4.1 Provision of the inputs**

The actual items and amount of inputs provided was reviewed in comparison with the planned items and amount stated in the R/D, the Minutes of the Meeting on 6<sup>th</sup> April 2006, and PDM-1. The summary of the result is listed in Annex 5-1.

#### **4.2 Performance**

##### **(1) Achievement of the Outputs**

**Output 1:** The CSVTPM's research themes reflect the needs of the fisheries sector

The needs assessment was undertaken jointly by the Moroccan C/Ps and the Japanese experts. Though it took time and, consequently, the PO was developed almost after one year of the launch of the project, it was considered to be effective to grasp the situation of the fish processing sector. The PO was further discussed and approved by the Technical and Scientific Committee (Comité de Technique et Scientifique, hereinafter referred to as CTS).

The survey further incurred two outcomes: first, it provided the exposure of CSVTPM to the private sector to initiate building relationship with the industry; and second, it facilitated the capacity of CSVTPM to undertake similar needs assessment in future, which they have started with the specific areas of hygienic and quality control.

The above mentioned needs assessment also gathered the information on market access, characteristics and size of investment, and the research and development (R&D) activities of fish

processing companies. Through the analysis of this information, it may have been also possible to use the findings to strategise the means of communication with the private companies. The activities listed under Output 2, 3 and 5, especially organisation of seminars, reports, other publications and public relations activities, may have been optimised in terms of targets, media and contents.

**Output 2:** Research ability of the fish processing section of the CSVTPM is enhanced and the potential for new products development is increased.

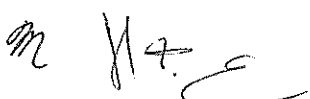
The transfer of basic skills and knowledge for R&D, maintenance of the equipments and facilities in the area of fish processing were substantially completed, and C/Ps developed manuals and reports and organised seminars. However, the trial products were developed without collaboration with the private companies. Therefore, the C/Ps' skills and knowledge in the applied level are yet to be enhanced.

The difficulty observed in undertaking the joint product development with a private company can be found in two fold: the length of time since CSVTPM started disseminating the results of their R&D activities; and difficulty in identifying companies which were ready for venturing into product development. Due to the duration of the trainings for basic skills took longer time than expected, CSVTPM started their activities to disseminate information only in the end of the second year of the Project. The latter point is generally observed in the industry which is reluctant for the new product development because of various reasons such as lack of information, market access, and insufficiency of initial financial resources for investment.

However, by the efforts of information dissemination such as seminars, there are some positive signs observed: some companies have expressed the interest of having joint product development. Furthermore, CSVTPM is to sign the agreement with the National Federation of Seafood Processing (FENIP) to work jointly for new product development. Therefore, this output may be realised in near future at least partially.

**Output3:** Research ability of the hygiene and quality control section of the CSVTPM is enhanced and hygiene and quality control guideline for Morocco is studied.

The transfer of basic skills and knowledge for conducting research and analysis and maintenance of the equipments and facilities in the area of hygiene and quality control were substantially completed. C/Ps developed manuals and reports, and organised seminars.



The project aimed at providing the suggestions for the hygiene and quality guideline. Regarding the comprehensiveness of the Hygiene Guideline (Le Guide des Bonnes Pratiques d'Hygiene) with sufficient details, the project did not review the guideline as a whole. Instead, the project focused on developing supplemental information and/or recommendations by providing scientific data to prove the effectiveness of the guideline, and to facilitate the implementation of the guideline, for the limited contents (e.g., histamine control of semi-preserved anchovies).

In addition, researches were conducted in the area of quality control such as nutritional and chemical analysis. CSVTPM is also undertaking the research and analysis in response to the request for the industries such as the research on white particle problem in the canned sardine and the shelf-life of canned food.

While the basic skills have been acquired, the C/Ps need continuous development of skills and knowledge to achieve the applied technology in order to be able to meet the diverse needs of the private sector. For this reason, further active interaction with the industries is encouraged.

**Output 4:** Post harvest quality improvement techniques and fishery products processing techniques for artisanal fisheries villages are proposed.

The study on the artisanal fishery was undertaken by using the case of the dried mussels produced by the women's group in Imssouane. Based on the study, manual for extensionists was developed for the better processing methods to increase the value of the product. However, in light of CSVTPM's mandates and core functions, it was concluded that popularisation should be done by cooperation of the other agencies specialised for extension. Therefore, the manual was submitted to INRH Regional Centre in Agadir for the further popularisation within their programme. INRH is further planning to develop the brochure for women's groups and training tools to promote the use of the manual for various audiences, which is expected to entail the impact also to other part of the country.

**Output 5:** Management ability of CSVTPM is strengthened.

The public relation has been activated since May 2007 after the arrival of the long-term Japanese expert in charge of the public relations. The information system which designated the staff members in charge of public relations was installed including the periodic needs assessment.

The Mid-Term Action Plan for 2008-2010 reveals the vision of CSVTPM established and

concretised through the activities launched by the project. The planned activities comprised in the action plan are relevant and feasible, with some further development of the currently on-going activities. The agreement on collaboration with FENIP is in process, which gives the entry point for CSVTPM to set up the closer collaboration with the private sector.

## **(2) Achievement of Project Purpose**

For the evaluation, the definition of the two indicators was first clarified by the Moroccan and Japanese Evaluation Team members with the acknowledgement of C/P.

For the first indicator, the trial products can be regarded as the ones “proposed for merchandize in the future” when the product are developed through the actual collaborative work with a private enterprise. According to this criterion, there has been no product developed.. However, it was confirmed that some companies have been expressing the interest of joint product development. Therefore, the achievement of the indicator, at least partially, may be realised in near future.

The second indicator is to propose the revised hygiene and quality control guideline. The volume and contents of currently available hygienic guideline is massive, and relatively new to be revised. As the team examined the kind of value which CSVTPM can add to the guideline, it was agreed that the indicator can be defined as supplementary information with the adequate and sufficient scientific analysis, and recommendations which can facilitate easy implementation of the guideline. The research on histamine control for semi-preserved anchovies has been nearly completed its first phase, and its results as well as recommendation are to be presented in the next seminar. It is expected that the information packages such as reports and recommendations will be prepared and distributed to the relevant stakeholders by the end of the project.

## **4.3 Implementation Process**

### **(1) Implementation structure**

The implementation structure constituted by the management committee of CSVTPM (Comité de Gestion), Technical Working Group (CTS) and the monitoring function of JCC did not function fully. It was, however, improved after the consultation study in December 2006. The fact that CSVTPM became more active and the needs of the management and collaboration arise.

### **(2) Project planning and management**

It was observed that at the certain point, both C/P and Japanese Experts started to view the Project Purpose as difficult to attain. However, the project was preceded without adjustment and a clear idea of the final outcomes of the project. It became, therefore, eventually difficult to



adjust the plan including PDM. The project, both C/Ps and Japanese experts, JICA office and all the relevant parties, should have communicated and discussed at the suitable point in order to make necessary arrangement for the adjustment.

### **(3) The Participation and Cooperation of the Relevant Government Institutions**

As the project implementation structure was not active in the beginning, it is not possible to measure the commitment of the governmental institutions. However, some confusion of the mandate and core services by CSVTPM was observed among the other entities. In order to facilitate the effective utilisation of the outcome of CSVTPM's activities and seeking the possibility of complementarities, clear demarcation and shared understanding of CSVTPM's mandate and core services should be reinforced.

## **5. Evaluation Results**

### **5.1 Relevance**

The relevance of the project is relatively high based on the following analysis.

#### **(1) Relevance to the Morocco's government policy**

The consistency of the project to the Morocco's Government policy can be evaluated as high: The National Initiative for Human Development (L'Initiative Nationale pour le Developpement Humain) highlights poverty reduction which has relevance with the project's approach to the artisanal fisheries. The pillar of the current Action Plan (Le Plan d'Action 2005-2007) for fisheries sector development includes modernisation of fishery sector including the value-adding and improvement of hygiene and quality control.

#### **(2) Relevance to the Japan's government and JICA policy of the assistance to Morocco**

The Project is consistent with the one of the focus areas, fisheries sector, in the framework of Japan-Morocco cooperation agreed during the Economic Cooperation Policy Dialogue in 1997. However, the current JICA Country Program focuses more on the fisheries resource management and the direct assistance to the artisanal fisheries sector. The project and JICA policy may, therefore, have some diversion, as the project works more with the established enterprises.

#### **(3) Adequacy of the selection of the target and strategy**

Facing the stiffening competition in the main markets, i.e., Europe, the diversification and increasing of value addition of the fisheries products with high quality, is pressing needs of the fisheries industry. The scarcity of the fisheries resources also urges them for the value addition and effective use of the resources. Therefore, the project target population comprising the whole

chain of the fisheries industry is adequate. At the same time, capacity development of CSVTPM can be justified as a means of ensuring the availability of such services, which C/P can be regarded as the primal targets.

## **5.2 Effectiveness**

Effectiveness is evaluated as middle based on the following analysis.

### **(1) The contribution of Outputs to achieving the Project Purpose**

As reviewed in 4.2, the degree of achievement of the Project Purpose is relatively high, but still limited. The reason of this result can be explained by the degree of the achievement of the Outputs to some extent.

Apart from the degree of the achievement of Outputs, following element was identified as another reason.

### **(2) Project design**

For the hygiene and quality control, the problem of the alignment between Overall Goal, Project Purpose, Output and the Activities were observed. Originally, the expected results of the project stipulated as the indicator of the Project Purpose was to propose a hygiene and quality control guideline. However, in the second year of the project, it was realised that the Hygiene Guideline was already developed and introduced to the fisheries sector. Therefore, CSVTPM's role was redefined to improve the Guideline so as to facilitate the compliance and, at the same time, to improve the contents. Consequently, the Project Purpose and its indicator were altered as to propose a revise of the Guideline.

However, apart from the field of hygiene, there were also on-going activities which did not necessarily fit to the new indicator. Considering the significance of this research vis-à-vis the Overall Goal of the project, which aims at improving the quality and hygienic standard of the country, these activities were continued. The consistency of the project activities with the Overall Goal was reserved, but the activities did not necessarily align with the achievement of the Project Purpose.

## **5.3 Efficiency**

Efficiency is evaluated as relatively high based on the analysis below.

### **(1) Efficiency in Inputs**

(a) Sufficiency and adequacy of the inputs from Japanese side

In general, the inputs from Japanese side were sufficient and used appropriately. Regarding the number of the C/Ps, the number of long-term expert may have been adequate. However, as the young institution has necessity of the capacity building in various technical areas, some difficulty was observed for the two long-term experts to carry out both the technical transfer and managerial works of the project. It was, therefore, adequate to dispatch a long-term expert in charge of public relations and project management. This has greatly contributed to prompt launch of the information dissemination and other public relations activities.

The effectiveness of the C/P training was affected by insufficient number of the C/Ps in the Processing Unit. As there was only one engineer as a C/P in the Unit until the dispatch of consultation study team, it was not possible to send the C/P for the training in Japan.

**(b) Sufficiency and adequacy of the inputs from Moroccan side**

Moroccan side ensured the inputs required for the project in general, which were effectively utilised. Considering the difficulty with the insufficient number of C/Ps observed in the Processing Unit, the recruitment was done after the recommendation made by the study team.

The contribution for the consumable supply for R&D activities such as chemical agents needed to be ensured as agreed in R/D. Instead, out of 1,046,869DH which consumed for the supply for R&D in the three years (2005~2007), 545,000DH (52%) was expended from the Japanese side. In light of CSVTPM's prime mandate to work for the private sector, it is necessary to ensure the flexibility and responsiveness to their changing and diverse needs with the suitable management structure. Suggestions and requests on some extent of autonomy and self-financing mechanism of CSVTPM were expressed by the private enterprises during this study.

**(2) Efficiency in activities**

The activities in general were observed to be suffered from the short of time. The reasons of delay were found in the following points:

**(a) The duration of the project**

It was observed that in order to achieve Output 2, 3 and, subsequently the Project Purpose, it may require more time than expected at the time of the project planning. Due to the length of time spent for the needs assessment which delayed the process of developing the PO, the progress of the project was burdened by the delay of planned activities. Moreover, basic training of C/Ps required much time. As a result, the research output was finally presented for the public in the end of the second year. This delay may not have allowed the project enough time to seek effective collaboration with the private sector and the other governmental institutions.

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(b) Nature of the private sector: market and investment

The established structure and the culture of the Moroccan fisheries industry requires various factors to be satisfied for the private companies to endeavour the new product development: building the awareness and initiating more proactive search for new markets; and building the managerial and marketing capacity of the companies. The nature of the situation was not conducive for the project to identify the companies who may make the decision on venturing into the product development in rather short time.

## 5.4 Impact

The impact can be expected to be realised to some extent, though some uncertainty is observed.

### (1) Possibility of achieving the Overall Goals

The project has been increasing the effectiveness for the awareness building of the fish processing industry: the enterprises are expressing their request for more seminars and publications to serve for their demand of technical information. There are positive signs of sensitisation which has been already materialised as a form of the agreement with FENIP for the joint product development in the near future. However, it is predictable that finding partner companies may still be not easy. It is also uncertain whether the collaboration with FENIP will successfully lead to identification of new target products.

As for the measures for artisanal fisheries, the extension manuals of the dried mussels are to be developed to brochures and other tools for the easy implementation. Therefore, it is expected that the processing and quality improvement methods will be introduced to other villages in the future. Hence, the Overall Goal concerning the artisanal fisheries are expected to be achieved.

### (2) External factors which may affect the Achievement of the Overall Goals

The decline of the fisheries resources can affect the achievement of the Overall Goal in both positive and negative ways: the reduction of the production would urge the industry for the alternative transformation, but at the same time, weaken their capacity for further business development.

### (3) Influence on the government policies and institutions

The successful outcome of the project may be able to benefit to the administration of the hygienic and quality control of the fisheries industry. Through the research results such as the histamine control of semi-preserved anchovies can provide the regulatory authorities to improve

the quality control system with sufficient scientific analysis.

## **5.5 Sustainability**

The overall evaluation on the degree of sustainability is middle.

### **(1) Mission and vision of CSVTPM and the acknowledgement by the other stakeholders**

CSVTPM's services have started to be acknowledged by the fish processing industry with some tangible results created overtime, gradual efforts of dissemination of information and visits to the companies. However, there may be some confusion on the demarcation with other governmental institutions and their understanding on the roles of CSVTPM. In order for the best utilisation of CSVTPM to achieve the Overall Goal, the necessity of explicit efforts for facilitating collaborative relationship with the other governmental entities is emphasised.

### **(2) The possibility of the continuous support of the government to CSVTPM and its activities**

One of the major determinants of the sustainability should be the continuous provision of human and financial resource from INRH. As mentioned earlier, the amount spent for the consumable supplies for R&D by Japanese side may pose concern for the sustainability.

Furthermore, as mentioned earlier, in order to develop the good relationship with the private sector and to work as their partner, the organisational structure and mode of work may be reviewed thoroughly. Key factors such as flexibility, promptness and responsiveness may be needed. The managerial structure, especially CSVTPM's autonomy in terms of decision making and financial management, should be sought.

### **(3) Technical capacity of CSVTPM for sustainable operation**

C/Ps has improved the technical capacity in order to carry out the basic research and analysis in the areas of their expertise. They have also demonstrated the capability to maintain the facilities and equipment, with manuals prepared by C/Ps with the assistance of the Japanese experts. In order to develop the activities of CSVTPM, however, the applied level of skills and knowledge of C/Ps would be the significant factor which should be excelled further.

## **6. Conclusion**

### **6.1 Overall Achievement**

Through various activities of the project (needs assessment, technical training, seminars), the technical capacity of the personnel of CSVTPM to conduct R&D activities that are connected to the improvement of fisheries sector has been enhanced. After rather long time for the skill development in the first and second years of the project, CSVTPM started the interaction with the

private sector through the seminars and information dissemination. As a result, the understanding of the fisheries sector toward the significance and function of CSVTPM has started to be generated. The basis of the further development of CSVTPM has been established to some extent. With the delay of the execution of some activities, CSVTPM is still required to make further efforts to establish the collaborative relationship with relevant parties. At the same time, C/Ps' skills are further to be enhanced to meet the demands of the industry.

## **6.2 Processing section**

Despite the initial reluctance of private sector to develop new products, there is a sign of change: some companies are expressing their interest on the product development in collaboration with CSVTPM. It can be as a result of stimulating the potential demand of the industry for the product development. Meanwhile, the actual work for the product development has not started. Consequently, the applied skills and knowledge are yet to be acquired.

## **6.3 Hygiene and Quality Control section**

The research activities of CSVTPM which reflects the needs of private enterprises have been highly appreciated by the sector. Some of its results have already been introduced through seminars and events. Thus, the compilation and presentation of information which promotes improvement of quality control in private sector is likely to be accomplished in the near future, based on researches which have been conducted to date.

## **6.4 Relationship with Concerned Organizations**

CSVTPM has already started to establish favourable relationship with the fisheries sector. It is probable that CSVTPM will continue to reinforce its relationship with various organizations along with the frameworks such as INRH-FENIP collaboration and the concept of "Pôle de Compétitivité d'Agadir". For the governmental institutions, clear definition of roles of CSVTPM should be fully acknowledged, and the complementarities should be fully exploited with other relevant institutions.

## **6.5 Evaluation by 5 Criteria**

The relevance of the project is relatively high. The result of the evaluation revealed that the efforts by C/Ps, Japanese Experts and other relevant parties brought the relatively high degree of the achievement. Nevertheless, some degree of the work was left. The chain between the effectiveness (evaluated as middle) and the efficiency (evaluated as relatively high) can be analysed that the project might have been affected by the shortage of time, budget, and the project design. Despite the difficulty, the project is expected to provide positive impact on opening up the industries for changing the culture of the fisheries sector. The major challenge for the project is,

therefore, to ensure the sustainability by developing the capacity of both C/Ps and the organisation itself. At the same time, continuous support from the government of Morocco should be ensured.

## **7. Recommendations and Lessons Learned**

### **7.1 Recommendations**

With reference to the study results, the terminal evaluation study team has elaborated the recommendations shown below in order to reach the objectives set by the project.

#### **(1) Reinforcement of human resources**

The new status of INRH personnel which will be validated in the near future is expected to have positive impact on the activities of CSVTPM.

The team has appreciated the efforts which have been done with reference to the recommendations of the project consultation study of 2006, and esteems the necessity of pursuing these efforts in order to provide CSVTPM with necessary skills.

The team further requires a particular interest for the reinforcement of the human capacities of CSVTPM through the assignment of the required profiles, and the continuous improvement of the existing staffs.

#### **(2) Flexible system for the project management**

Since the contents of the project need to be reviewed and discussed constantly by the implementing parties including JICA, it is necessary to have a management system at the staff level other than the existing committee such as Joint Coordinating Committee.

Therefore, a more flexible means of project management should be practiced as a means of sufficient communication among all relevant parties.

#### **(3) Accumulation of experience in cooperation with the private sector, notably product development activities**

In the project, it required a certain length of period to convince the private sector to collaborate with CSVTPM, due to their limitation of finance and reluctance towards innovation.

Meanwhile, it should be emphasized that the accumulation of the experience in co-working with private companies is especially important in the field of product development, since the practice will offer CSVTPM an opportunity to acquire the viewpoint and necessary approach for the private sector, such as reduction of cost/risk.

Therefore, the team recommends to strengthen a close and effective collaboration with the private sector within the project.

#### **(4) Reinforcement of communication including other public organizations**

The team recommends to give more interest to the communication with different partners in order to address comprehensively to the development of value-adding industries and disseminate the research results. For this purpose, cooperation with the public organizations is indispensable for complementary activities. CSVTPM is strongly encouraged to reinforce the communication with other governmental parties.

In addition, it is recommended to transmit the extension manual elaborated by the project to the responsible national extension center by the end of the project.

#### **(5) Reinforcement of flexibility for the effectiveness of CSVTPM**

In order to overcome the encountered difficulties in the initiation and the establishment of partnership activities with the private sector, the team recommends to examine the possibility of allowing CSVTPM more flexibility in decision making as well as in taking specific actions such as budgetary matters.

#### **(6) Activities concerning hygiene and quality control**

In order to avoid overlapping with different governmental organizations, the team recommends to clarify and to address the tasks of CSVTPM in the field of hygiene and quality control with regard to other relevant organizations.

At the same time, organizations concerned are also requested to make effort in this matter to reinforce the public structure as a whole in this field.

#### **(7) Equitable benefit to Moroccan society**

It is important that as a national institute, CSVTPM continues to contribute to the benefit of Moroccan society as a whole, including middle and low income group which is the majority. In this regard, activities by CSVTPM such as development of low-cost product for domestic market and improvement in artisanal fisheries sector should be encouraged.

#### **(8) Extension of the cooperation period**

In the project, trials of new product development in collaboration with the industry, in correspondence to Output 2, has not yet been achieved due to multiple reasons, especially because of the length of time it required to draw the interest of companies. However, it is one of the most essential activities for the achievement of the project objective. Given that several companies are currently interested in working together with CSVTPM, the activity is likely to be initiated in the near future.

In addition, the presentation of CSVTPM's research results was not done until the first seminar held in May 2007, which obtained a certain positive response from the participating



companies. Thus, it is also important to continue such efforts to attract further interest of the private sector.

Through the on-the-job practice, CSVTPM staffs are expected to:

- (a) acquire applicable technology on product development in addition to the basic knowledge which they have already attained,
- (b) understand the demand for technical support from the viewpoint of private companies, which will help CSVTPM to program more effective activities,
- (c) enhance the conviction of the private sector towards collaboration with CSVTPM, through introducing the trial case to the public as a good practice.

Therefore, it is recommended to extend the cooperation period **for one year (until June 2009)** in order to conduct the product development trial at least once within the project activity.

However, as a verification of feasibility of the above practice, following are requested to CSVTPM with assistance of Japanese experts :

- (a) to submit following documents to JICA Headquarters **by 29th February 2008** :

Draft plan of operation (approved by the director of INRH) including :

- concept of the product development trial with the private sector
- identification of candidate partner company(s)
- type(s) of target product(s)
- draft schedule of the trial collaboration within the duration of the project (elaboration of at least one trial product until June 2009)

- (b) to submit following document(s) to JICA Headquarters **by 15th March 2008** :

Minutes of Meeting(s) with partner company(s) (approved by the director of INRH) including :

- draft plan of operation (as in above (a))
- basic idea of obligation on both sides (such as provision of personnel, equipments, materials and other costs, property rights on technical information)

- (c) to submit following document(s) to JICA Headquarters **by 30th April 2008** :

Agreement(s) on the trial product development with partner company(s) (approved by the director of INRH)

It is recommended for the Japanese side to extend the project on receiving the above verification.

## **7.2 Lessons Learned**

### **(1) Involvement of the private sector into project activities**

It should be noted that the attitude of private sector depends largely on external factors such as markets and resources. The length of time which is required to mobilize the companies must not be underestimated, especially when the sector tends to be conservative. Thus, when involving the private sector into a project, extra attention should be paid to construct the project design, such as to avoid an objective which depends on external conditions, and setting of the cooperation period.

### **(2) Management of the project**

In principal, the framework of a project design (PDM) should not be changed, since it is based on the evidence of preliminary study and mutual agreement between two governments.

However, the initial project design does not always prove to be the most adequate design, because in some cases the actual situation of a country is revealed during the progress of the project. In case for such possibility, the project experts, C/Ps and implementing organizations should constantly review the PDM, and examine the necessity of its revision in order to adjust the project design to the circumstance of the recipient country.

### **(3) Possibility of synergy effect of more than one project**

Along with the project by CSVTPM, another technical cooperation project by JICA targeting the extension to artisanal fisheries sector was in progress until the end of March 2006, and the former was designed with the intention of collaboration with the latter.

While in the beginning there had been little collaboration between two projects since the project by CSVTPM had only started its activities, currently the outcomes of these projects are expected to be utilized mutually to produce synergy effect.

In designing a project, collaboration between more than one project should be considered, such as in the case of this project.

(End)

## PDM for Improvement of Value Adding Method for Fisheries Products

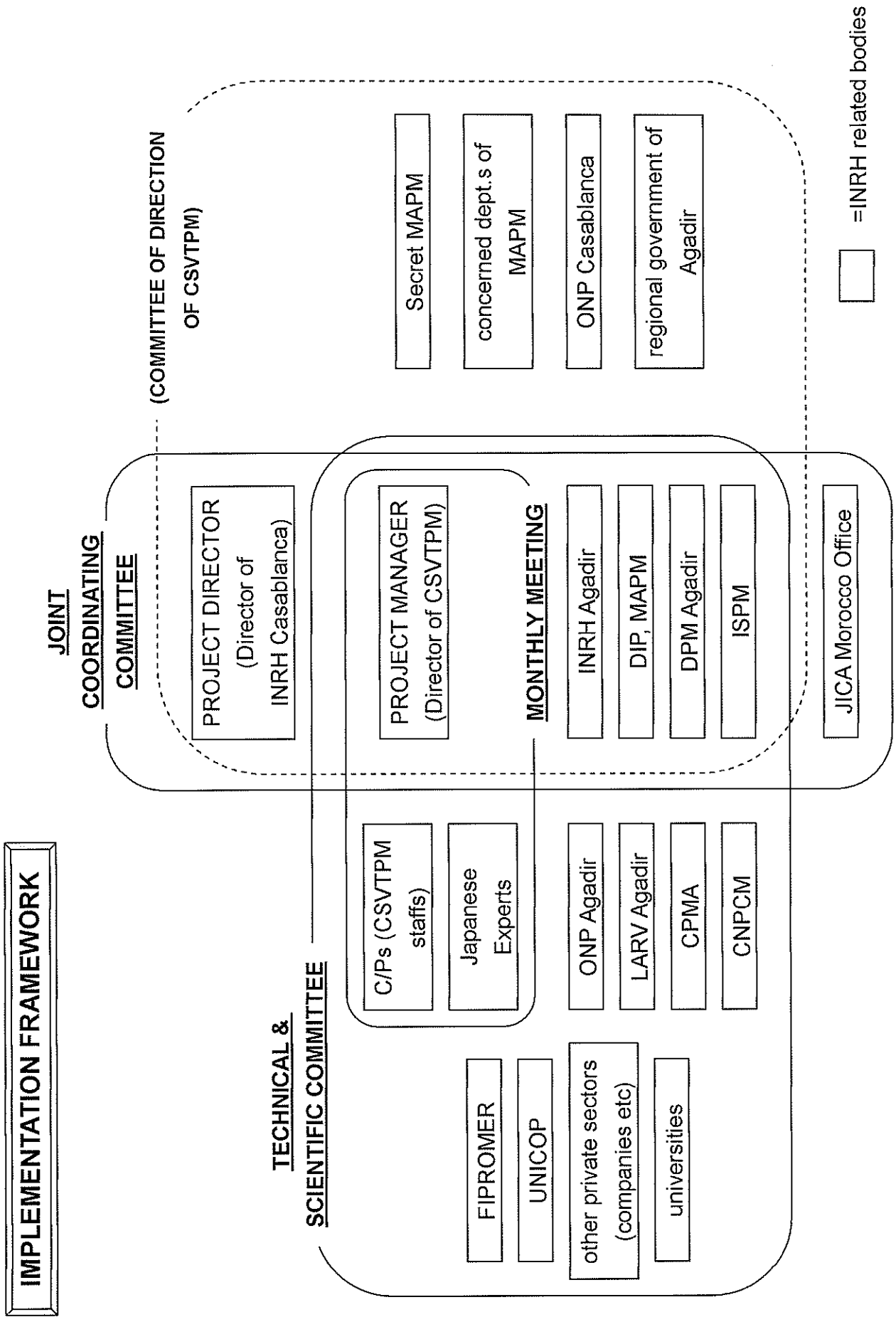
Target Area and Target Groups: Staff of CSVTPM, and Fisheries Processing Sector as whole (including artisanal fishery, workers and inspectors in fish markets)

Date: 1 December, 2006

Project summary	Indicators	Means of obtaining data	External conditions
<b>[Overall goal]</b> New processed fish products and measures for quality and sanitary control, developed with the cooperation of the CSVTPM, are applied in the fisheries sector (producing, transporting and processing sub sectors).	<ul style="list-style-type: none"> <li>• Several numbers of processed fish products developed with the contribution of CSVTPM's technologies are merchandized.</li> <li>• Several numbers of technologies for quality and sanitary improvement on fish products are introduced to the industry.</li> <li>• Artisanal fish processing is occurred in local communities.</li> <li>• Quality of fish harvested by artisanal fishers is improved</li> </ul>	<ul style="list-style-type: none"> <li>• Interviews and questionnaire surveys with consumers, retailers, and wholesale dealers of processed fishery products and producers (including artisanal fishery) responsible for hygiene and quality control</li> <li>• Reports from the CSVTPM</li> <li>• Interview with artisanal fishers</li> </ul>	<ul style="list-style-type: none"> <li>• Artisanal fishery is promoted.</li> <li>• Export of fishery products is promoted.</li> <li>• Diet with more seafood is promoted.</li> </ul>
<b>[Project purpose]</b> Proposal for value adding methods for fisheries products are compiled through the CSVTPM's activities.	<ul style="list-style-type: none"> <li>• At least 3 types of trial products are proposed for merchandize</li> <li>• Sanitary and quality control guideline for Morocco is proposed</li> </ul>	<ul style="list-style-type: none"> <li>• Project activity reports</li> <li>• Evaluation Report of the Steering Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Artisanal fishery is continuously promoted</li> <li>• Export of fisheries products is continuously promoted</li> <li>• Diet with more seafood is prompted</li> <li>• The Steering Committee will promote the technologies developed by the CSVTPM and information obtained by the CSVTPM's research so that they are utilized by fisheries training and extension entities such as fisheries training institutes.</li> </ul>
<b>[Outcomes]</b> 1. The CSVTPM's research themes reflect the needs of the fisheries sector.  2. Research ability of the fish processing section of the CSVTPM is enhanced and the potential for new products development is increased.  3. Research ability of the hygiene and quality control section of the CSVTPM is enhanced and hygiene and quality control guideline for Morocco is studied.  4. Post harvest quality improvement techniques and fishery products processing techniques for artisanal fisheries villages are proposed.  5. Management ability of CSVTPM is strengthened.	<p>1-1 Feed back from the fisheries sector is reflected to the research activities of the Center</p> <p>2-1 C/Ps master the usage of facilities and equipments necessary to conduct research themes on fish processing</p> <p>2-2 C/Ps master the fish processing procedures instructed by the JICA experts</p> <p>2-3 C/Ps can conduct training courses on fish processing</p> <p>2-4 More than 10 sample products are produced in collaboration with technicians from the fisheries industry</p> <p>2-5 Participate in trade fairs and/or organize processed product testing exhibitions in collaboration with relevant organizations at least 2 times</p> <p>3-1 C/Ps master the usage of facilities and equipments necessary to conduct research themes on hygiene and quality control.</p> <p>3-2 C/Ps master the analysis procedures instructed by the JICA experts</p> <p>3-3 Freshness control in the fisheries sector is improved</p> <p>3-4 C/Ps can conduct training courses on fisheries products quality improvement</p> <p>3-5 Hygiene and quality control procedures in Morocco are drafted</p> <p>3-6 Data on hygiene and quality control is presented at trade fairs and exhibitions at least 2 times</p> <p>3-7 C/Ps understand the research planning method for new issues</p> <p>4-1 A Fisheries products quality improvement manual for artisanal fishery is published</p> <p>4-2 A Fish processing manual for the use of artisanal fishing villages is published</p> <p>5-1 News letters and Website are revised on a regular schedule</p> <p>5-2 Over 30% of fisheries processing industries have information exchange (including their participation in seminars) with CSVTPM constantly</p> <p>5-3 Activities collaboration with concerned organization is added to CSVTPM's action plan</p> <p>5-4 Draft of medium-term action plan (not less than 3 years) is proposed to INRH</p>	<ul style="list-style-type: none"> <li>• Minutes and reports of the steering committee</li> <li>• Minutes and reports of the technical committee</li> <li>• Project activity report</li> <li>• Project activity report</li> <li>• Interview and/or questionnaire for the Industry</li> <li>• Interview with C/Ps</li> <li>• Technical manuals and scientific reports</li> <li>• Reports of seminars and training sessions</li> <li>• Project activity report</li> <li>• Interview and/or questionnaire for the Industry</li> <li>• Technical manual and scientific reports</li> <li>• Interview with C/Ps</li> <li>• Reports of seminars and training sessions</li> <li>• Project activity report</li> <li>• Manuals made by C/Ps</li> <li>• Project activity reports</li> <li>• News letters and Website</li> <li>• Interview and/or questionnaire for the Industry</li> <li>• Interview and/or questionnaire for concerned organizations</li> <li>• Seminars, training sessions, exhibitions, etc.</li> <li>• Draft of medium-term action plan</li> </ul>	<ul style="list-style-type: none"> <li>• Organizations such as fishery training school cooperate in disseminating know-how to artisanal fishing villages.</li> </ul>

<p><b>[Activities]</b></p> <p>1. The CSVTPM's research themes reflects the needs of the fisheries sector.</p> <p>1-1 Visit fish processing factories to grasp and analyze the problems</p> <p>1-2 Grasp the problems on hygiene and quality control as well as the response of Morocco correspond to the needs of the international market</p> <p>1-3 Examination and follow-up of CSVTPM's research activities</p> <p>2. Research ability of the fish processing section of the CSVTPM is enhanced and the potential for new products development is increased.</p> <p>2-1 Train the C/Ps on producing processed products (multiple times)</p> <p>2-2 Prepare manual for manufacturing processed products by the C/Ps</p> <p>2-3 Workshop for the technicians of the industry on manufacturing processed products by the C/Ps</p> <p>2-4 New products development trials in collaboration with the industry</p> <p>2-5 Introduce samples at trade fairs and taste testing sessions</p> <p>3. Research ability of the hygiene and quality control section of the CSVTPM is enhanced and hygiene and quality control guideline for Morocco is studied.</p> <p>3-1 Train the C/Ps on hygiene and quality analysis technique (multiple times)</p> <p>3-2 Analyze and report the relationship between preservation method and quality change</p> <p>3-3 Hygienic and chemical analysis of fisheries products (components analysis of the raw material and quality analysis of processed products)</p> <p>3-4 Conduct trainings and seminars on quality improvement of processed products by the C/Ps</p> <p>3-5 Introduce the result of the analysis of contents of healthy components of fisheries products at trade fairs and taste testing sessions</p> <p>3-6 Establish a system of quality management in the pilot processing unit of CSVTPM</p> <p>4. Post harvest quality improvement techniques for artisanal fishing villages are proposed.</p> <p>4-1 Study on present quality control and processing situation for harvested fish (study the possible options)</p> <p>4-2 Select at least one model fishing villages</p> <p>4-3 Propose a training plan to concerned organizations for the artisanal fishing villagers on fish processing techniques and fish quality control techniques</p> <p>5. Management ability of CSVTPM is strengthened.</p> <p>5-1 Public Relations (PR) of CSVTPM's research activities are come to stay</p> <p>5-2 Reinforce a technique and information provision system for fisheries processing sector</p> <p>5-3 Reinforce collaboration with concerned organizations</p> <p>5-4 Draft of medium-term action plan of CSVTPM's is made</p>	<p><b>[Inputs]</b></p> <p>{Moroccan side}</p> <p>(1)C/Ps</p> <p>a. Director</p> <p>b. More than 3 C/Ps on fishery product processing</p> <p>c. More than 3 C/Ps on hygiene and quality control</p> <p>d. More than 4 CSVTPM technicians (Assistant C/P)</p> <p>e. C/Ps from the Ministry if necessary</p> <p>(2) Combined coordination committee from the Ministry</p> <p>(3)Administrative services secretaries, office space, and stationery</p> <p>(4)Costs for facilities and operation costs for facilities, equipment and operation of CSVTPM</p> <p>(5)Costs for consumables for research and development and quality inspections costs for consumables such as samples and medications</p>	<p>{Japanese side}</p> <p>(1)Long-term experts</p> <p>a. Chief advisor / fishery product processing technology expert</p> <p>b. Coordinator / hygiene and quality control expert</p> <p>(2)Short-term experts</p> <p>2 to 3 technical experts per year</p> <p>(3)Training of C/P</p> <p>1 to 2 C/P per year in each technical field</p> <p>(4)Provision of equipment</p> <p>About 8 million yen</p>	<p>Preconditions</p> <ul style="list-style-type: none"> <li>• Morocco's economic situation does not deteriorate.</li> <li>• Morocco's fishery resources and fish catches remain stable.</li> <li>• Morocco's export C/Ps do not change export regulations drastically.</li> <li>• Materials for tests and research can be sustainably obtained.</li> <li>• Partnership and cooperation with private processors are possible.</li> <li>• The CSVTPM's know-how can be disseminated to artisanal fishing villages.</li> <li>• Fishery promotion policy of local government is sustained.</li> <li>• The CSVTPM maintains cooperation with other fishery-related organizations in Morocco.</li> </ul>
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## Dispatched Japanese Experts

ANNEX 3-1

### Long-term Japanese Experts

No.	Name of Expert	Field	Period of Assignment						
			From	To	2005	2006	2007	2008	
1	Mr. SHIRATORI Yoshinobu	Chief adviser Fish Processing	12/06/2005	11/06/2008	←				→
2	Mr. NOMURA Shigeto	Quality Control	12/06/2005	11/06/2008	←				→
3	Ms SAKAI Kikuko	Coordinator Public Relations	28/05/2007	10/06/2008				↔	

### Short-term Japanese Experts

ANNEX 3-2

No.	Name of Expert	Field	Period of Assignment						
			From	To	2005	2006	2007	2008	
1	Mr. TAKENO Noboru	Powder processing technology in fish feed	24/09/2006	23/11/2006		↔			
2	Mr. ISHIMOTO Ryou	Microanalysis operation	24/09/2006	23/11/2006		↔			
3	Mr. YAMAGUCHI Toshiyasu	Polyunsaturated fatty acids' analysis	03/02/2007	03/04/2007				↔	
4	Mr. SATOMI Shigeki	Retort food and spray dried food technology	28/05/2007	26/07/2007				↔	

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Assignment of Counterpart/Training in Japan

ANNEX 3-3

No.	Name of Counterpart	Field	Present Post Post at assignment time	Employment status*	Period of Assignment				Training in Japan			
					From	To	2005	2006	2007	2008	Year	Name of Training Course
	Dr. Abdellatif BERRAHO	Administration Project Director	Director of the INRH Same as above	(P)	Assigned as the PJ director by the R/D, 05/04/2005							
1	Dr. Naima BOU-MHANDI	Administration Project Manager	Director of the CSVTPM Same as above	(P)	~					2005	Food Processing Technology	2 weeks
2	Mr. Youssef RADI	Processing Technical CP	Engineer of the CSVTPM Same as above	(P)	~					2007	Food Processing Technology and Quality of Products	1 month
3	Mr. Alahiane LHASSAN	Processing Technical CP	Engineer of the CSVTPM Same as above	(P)	~							
4	Mr. Issam LAZIOUZ	Processing Technical CP	Technician of the CSVTPM Same as above	(P)	~							
5	Mr. Jamal CHAIRA	Quality Control Technical CP	Engineer of the CSVTPM Same as above	(P)	~					2006	Chemical analysis in fish quality control	1 month
6	Mr. Abdelliah AKASBI	Quality Control Technical CP	Technician of the CSVTPM Same as above	(P)	~							
7	Dr. Mariem KHARROUBI	Quality Control Technical CP	Engineer of the CSVTPM Same as above	(P)	~					2008	Analysys in fat-soluble vitamines	1 month
8	Dr. Mariem CHIKHAOUI	Quality Control Technical CP	Engineer of the CSVTPM Same as above	(P)	~							
9	Dr. Khbaya BOUCHAIB	Quality Control Technical CP	Engineer of the CSVTPM Same as above	(P)	~							
10	Mr. Fayssal EL FILALI	Quality Control Technical CP	Engineer of the CSVTPM Same as above	(P)	~							
11	Mr. Saïd HANOUNE	Quality Control Technical CP	Technician of the CSVTPM Same as above	(P)	~							

\*Note: Permanent (P) or Temporary (T)

# Provision/Procurement/Maintenance of the Equipment

ANNEX 3-4

**Note:**

R/P:Route of Procurement (J: From Japan,L: Local,E: With Expert)

Frequency of Use (A: Always B: Often C: Sometimes)

Condition (A: Good B: Fair C: Bad)

No.	Date of Arrival	Item	Description		Amount	Unit Price	S-total	Place of Storage	Frequency of Use	Condition	Remarks
			Manufacture	Model Number							
1	16/02/2006	Car (Pick up Type)	TOYOTA	11CV/04CY	1	215,300 DH	215,300 DH	CSVTPM	B	A	
2	18/04/2007	Forming Machine	Nippon Carrer Industry Co., LTD.	CF-15V	1	1,388,000 Yen	4403,700 Yen (including Tax)	CSVTPM	B	A	
3	18/04/2007	Stirring Tank	YANAGIYA	STI1000L	1	1,556,000 Yen	(302,446.32 DH)	CSVTPM	B	A	
4	18/04/2007	Fish Washer	YANAGIYA	SW80	1	1,250,000 Yen		CSVTPM	B	A	
5	26/07/2007	Seaming machine	STE GRAFROID	S220	1	287,373.75 DH	287,373.75 DH	CSVTPM	B	A	

Total: 805,120.07 DH 11,722,765.61 Yen

Rate&Date: 1DH=14.56027 Yen (October 2007)



**Other Expenditure by Japanese Side**

**ANNEX 3-5**

Unit: DH

No.	FY2005	FY2006	FY2007	Total (DH)	Total (Yen)
1	29 226	386 819	129 825	545 870	7 915 110
2	19 776	51 866	23 765	95 407	1 383 402
3	9 080	145 213	10 800	165 093	2 393 852
4			14 761	14 761	214 037
5	26 162	20 000	81 584	127 746	1 852 317
Total	84 244	603 898	260 735	948 877	13 758 718

*The consumable supplies and the equipments which were purchased in Japan were not included in this table.*

**Expenditure by Moroccan Side**

**ANNEX 3-6**

Unit: DH

No.	FY2005	FY2006	FY2007	Total (DH)	Total (Yen)
1	251 000	143 000	107 000	501 000	7 264 500
2	274 000	403 000	378 000	1 055 000	15 297 500
3	408 000	345 000	405 000	1 158 000	16 791 000
4	143 000	152 000	94 000	389 000	5 640 500
5	135	183	0	318	4 611
Total	1 076 135	1 043 183	984 000	3 103 318	44 998 111

## Evaluation Grid

## Achievement of Project

Narrative Summary	Verifiable Indicators	Source of Data	Result
<p><u>Overall Goal</u> New processed fish products and measures for quality and sanitary control, developed with the cooperation of the CSVTPM, are applied in the fisheries sector (producing, transporting and processing sub sectors.)</p>	<ul style="list-style-type: none"> <li>• Several numbers of processed fish products developed with the contribution of CSVTPM's technologies are merchandized.</li> <li>• Several numbers of technologies for quality and sanitary improvement on fish products are introduced to the industry.</li> <li>• Artisanal fish processing is occurred in local communities.</li> <li>• Quality of fish harvested by artisanal fishers is improved.</li> </ul>	<ul style="list-style-type: none"> <li>• Interviews and questionnaire survey with consumers, retailers, and wholesale dealers of processed fishery products and producers (including artisanal fishery) responsible for hygiene and quality control.</li> <li>• Reports from the CSTPM</li> <li>• Interview with artisanal fishers.</li> </ul>	
<p><u>Project Purpose</u> Proposal for value adding methods for fisheries products are compiled through the CSVTPM's activities.</p>	<ol style="list-style-type: none"> <li>1. At least 3 types of trial products are proposed for merchandize</li> <li>2. Sanitary and quality control guideline for Morocco is proposed</li> </ol>	<ul style="list-style-type: none"> <li>• Project activity reports</li> <li>• Evaluation Report of Management Committee</li> </ul>	<p><u>1. Product development</u></p> <ul style="list-style-type: none"> <li>• There has been no product developed with the collaboration with private sector companies.</li> <li>• However, it was confirmed that some companies have been expressing the interest of enter into the joint product development. Therefore, the possibility of partial achievement (e.g., at least one product) may be realised in future.</li> </ul> <p><u>2. Hygiene and quality control</u></p> <ul style="list-style-type: none"> <li>• Hygienic Control Guideline ("Guide des Bonne Pratiques d' Hygiene") covers the fisheries industry comprehensively with sufficient details. Therefore, the project's approach has been not to create the new one but to provide the supplementary information with the adequate and sufficient scientific analysis and recommendations which can facilitate easy implementation of the Guideline.</li> </ul>

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<p><u>Outputs</u> 1. The CSVTPM's research themes reflect the needs of the fisheries sector.</p>	<p>Feedback from the fisheries sector is reflected to the research activities of CSVTPM. &lt;Activities&gt; 1-1 Visit fish processing factories to grasp and analyze the needs of the fisheries sector. 1-2 Grasp the problems on hygiene and quality control as well as the response of Morocco correspond to the needs of the international market. 1-3 Examination and follow-up of CSVTPM's research activities</p>	<ul style="list-style-type: none"> <li>• Minutes and reports of the Management committee</li> <li>• Minutes and reports of the technical committee</li> <li>• Project activity reports</li> <li>• Interview with fisheries industry</li> </ul>	<ul style="list-style-type: none"> <li>• At least one area (Histamine control for semi-preserved anchovies) completed the research phase and expected to undertake the seminar by C/P in February 2008.</li> <li>• Reports and recommendations will be prepared and distributed to the relevant stakeholders by the end of the project period.</li> <li>• The proposal for value adding methods for fisheries products are compiled through the CSVTPM's activities.</li> </ul>
<p>2. Research ability of the fish processing section of the CSVTPM is enhanced and the potential for new products development is increased.</p>	<p>2-1 C/Ps master the usage of facilities and equipments necessary to conduct research themes on fish processing. 2-2 C/Ps master the fish processing procedures instructed by the JICA</p>	<ul style="list-style-type: none"> <li>• Project activity report</li> <li>• Interview and/or questionnaire for the industry</li> <li>• Interview with C/Ps</li> </ul>	<p><u>1-1. Understanding the needs of the industry</u></p> <ul style="list-style-type: none"> <li>• The joint needs assessment toward the fisheries industry was done in the period of December 2005 to February 2006.</li> <li>• CSVTPM has also undertaken surveys and situational analysis on the specific pertinent issues of the fish processing industries such as whitish particles of canned fish and cadmium contamination of canned sardines.</li> <li>• Needs assessment survey is to be one around October for the further planning.</li> </ul> <p><u>1-2. Reflecting the needs of the industry</u></p> <ul style="list-style-type: none"> <li>• Research topics reflect the needs of the industry. Cadmium research was added into the activity based on the request from the industry.</li> </ul> <p><u>1-3. Verification of the relevance and quality</u></p> <ul style="list-style-type: none"> <li>• In terms of the Project activities, monitoring and evaluation functions did not fully functioned: The Technical Working Group (CTS) held on October 2006 discussed PO developed based on the needs assessment. However, this PO was not further vetted by the Management Committee. Based on the recommendation by the Consultative Study, PO was revised, and approved by JCC held in December 2006.</li> <li>• JCC was also held in June 2007 and progress of the project was reported. Subsequently, technical information and opinions were exchanged.</li> <li>• For the technical issues, CTS small meetings were held as a forum for discussion regarding the cadmium issue with FIPROMER and MADRPM.</li> </ul> <p><u>2-1. Usage and Maintenance of facilities and equipment? : Instruction on the maintenance of equipment and facilities instructed.</u></p> <p><u>2-2. C/P skills levels: (Trainings)</u></p> <ul style="list-style-type: none"> <li>• Texts on basic processing skills and technique (English/French)</li> <li>• Practicum: Basic production methods of dried, salted, sterilized under high pressure and temperature, smoked, canned product and retort-pouched products, feed for aqua farming, and sardine paste and seasoned food (pre-cooked foods)</li> <li>• Fermented food started in December 2007.</li> </ul>

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<p>experts.</p> <p>2-3 C/Ps can conduct training courses on fish processing.</p> <p>2-4 More than 10 sample products area produced in collaboration with technicians from the fisheries industry.</p> <p>2-5 Participate in trade fairs and/or organize processed product tasting exhibitions in collaboration with relevant organizations at least 2 times.</p> <p>&lt;Activities&gt;</p> <p>2-1. Train the C/Ps on producing processed products (multiple times).</p> <p>2-2. Prepare manual for manufacturing processed products by the C/Ps.</p> <p>2-3. Workshop for the technicians of the industry on manufacturing processed products by the C/Ps.</p> <p>2-4. New products development trials in collaboration with the industry.</p> <p>2-5. Introduce samples at trade fairs and taste testing sessions.</p>	<ul style="list-style-type: none"> <li>• Technical manuals and scientific reports</li> <li>• Reports of seminars and training sessions</li> <li>• Records of maintenance</li> </ul>	<p>(Special training by short-term experts)</p> <ul style="list-style-type: none"> <li>• Fish feed, retort-pouch and atomization (spray dried food) (Manuals of processing techniques developed by C/P)</li> <li>• Smoked and retort-pouched technology</li> <li>• Fish paste will start the development of manuals in Feb 2008.</li> </ul> <p><u>2-3. Training courses conducted by C/P</u></p> <ul style="list-style-type: none"> <li>• Seminar and workshop were held mainly for the on smoked (May 2007) and retort-pouched processing (July 2007) technology. The evaluations by the participants were favourable.</li> </ul> <p><u>2-4. Sample product produced with the collaboration with technicians from the fisheries industry</u></p> <ul style="list-style-type: none"> <li>• Produced 18 samples in various processing methods by CSVTPM. Trial of paste products is in progress and to be developed by the end of the project.</li> <li>• There was an example of collaboration of developing sardine-based products before the launch of the project. Though the result seems to be acceptable, the firm was not ready to invest and start the business yet.</li> <li>• On-going discussion with FENIP about the joint product development agreement, though the concrete action plan and the list of the research themes are yet to be discussed and developed.</li> </ul> <p><u>2-5. Participation in trade fairs and exhibitions</u></p> <ul style="list-style-type: none"> <li>• The samples of the products were presented in the various fora, specifically in the below-listed occasions.</li> <li>• CSVTPM has also the plan to hold a tasting session of the product samples in February 2008 inviting the private sector and other relevant institutions.</li> </ul>															
<table border="1"> <thead> <tr> <th data-bbox="502 138 646 257">Name of the Fairs/Exhibition</th> <th data-bbox="502 257 646 369">Period</th> <th data-bbox="502 369 646 1243">Contents of Exhibition/presentation</th> </tr> </thead> <tbody> <tr> <td data-bbox="646 138 774 257">The World Food Day</td> <td data-bbox="646 257 774 369">Oct 2005 Oct 2007</td> <td data-bbox="646 369 774 1243">Introduction of CSVTPM, exhibition of the products samples Introduction of the Project activities, exhibition of the product samples, tasting</td> </tr> <tr> <td data-bbox="774 138 885 257">Forum at IAV Hassan II</td> <td data-bbox="774 257 885 369">Nov 2005 Oct 2007</td> <td data-bbox="774 369 885 1243">Introduction of CSVTPM, exhibition of the product samples Introduction of the Project activities, exhibition of the product samples, tasting</td> </tr> <tr> <td data-bbox="885 138 1029 257">Fish Morocco Agadir</td> <td data-bbox="885 257 1029 369">Nov 2006 Nov 2007</td> <td data-bbox="885 369 1029 1243">Introduction of the Project activities, C/P's presentation about the project activities, tasting Introduction of the Project Activities, exhibition of the product samples, tasting, C/P's presentation of the research outcomes of the area of quality control</td> </tr> <tr> <td data-bbox="1029 138 1077 257">Sea-Mer</td> <td data-bbox="1029 257 1077 369">Dec 2005</td> <td data-bbox="1029 369 1077 1243">Introduction of the CSVTPM, exhibition of the product samples, C/P's presentation on the Project activities</td> </tr> </tbody> </table>			Name of the Fairs/Exhibition	Period	Contents of Exhibition/presentation	The World Food Day	Oct 2005 Oct 2007	Introduction of CSVTPM, exhibition of the products samples Introduction of the Project activities, exhibition of the product samples, tasting	Forum at IAV Hassan II	Nov 2005 Oct 2007	Introduction of CSVTPM, exhibition of the product samples Introduction of the Project activities, exhibition of the product samples, tasting	Fish Morocco Agadir	Nov 2006 Nov 2007	Introduction of the Project activities, C/P's presentation about the project activities, tasting Introduction of the Project Activities, exhibition of the product samples, tasting, C/P's presentation of the research outcomes of the area of quality control	Sea-Mer	Dec 2005	Introduction of the CSVTPM, exhibition of the product samples, C/P's presentation on the Project activities
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CGIAR	Dec 2005	C/P's presentation on the Project activities, tasting	
Festival of the Sea and Desert in Dakhla	Feb 2007		
COMHAFAT in Abidjan	July 2007	Tasting of the retort pouched foods	
Evaluation of the trial products at JICA Europe Office in Paris	July 2007	Tasting	
<p>3-1. Usage and Maintenance of facilities and equipment:</p> <ul style="list-style-type: none"> <li>Instruction on the maintenance of equipment and facilities instructed. The contact with the equipment manufactures should be established in case of the troubles of the machinery.</li> <li>Pilot processing Unit quality control: manuals developed, training done.</li> </ul> <p>3-2. C/P skill level</p> <ul style="list-style-type: none"> <li>Hygienic and chemical analysis methods and skills technology transfer</li> <li>K value, VBN, histamine, Cadmium, TMA</li> <li>Histamine control: C/P acquired the skill of histamine analysis and identified the Critical Control Point. Based on the request from 3 companies, the data was collected and analysed. Control methods for semi processed anchovies will be proposed. The report is completed in Dec 2007 and a seminar will be held in Feb 2008.</li> </ul> <p>(Analysis of nutrients)</p> <ul style="list-style-type: none"> <li>Fatty acids including ω 3, vitamins</li> </ul> <p>(Verification of shelf-life of canned products)</p> <ul style="list-style-type: none"> <li>Sardine in tomato sauce and vegetable oil and oiled mackerel. The programme will be continued until Oct. 2008 and the report to be completed in December. The report should be shared with UNICOP and relevant institutions.</li> </ul> <p>(Other)</p> <ul style="list-style-type: none"> <li>Control of the production of whitish particles in the canned sardines. The result was shared with a canning firm. The result will be submitted to the company which asked requested the research.</li> <li>Research on cadmium</li> </ul> <p>(Trainings by short-term experts)</p> <ul style="list-style-type: none"> <li>Theoretical and practical trainings for HPLC, AAS and GC to examine and obtain K value, heavy metal contents, and fatty acids.</li> </ul> <p>(Trainings in Japan)</p> <ul style="list-style-type: none"> <li>One C/P in 2006 on chemical analysis in fish quality control.</li> <li>Training on analysis in fatty acid and vitamins for a C/P will be held in February 2008.</li> </ul> <p>3-4. Trainings and seminars conducted by C/P</p>	<ul style="list-style-type: none"> <li>Project activity report</li> <li>Interview and/or questionnaire for the Industry</li> <li>Technical manual and scientific reports</li> <li>Interview with C/Ps</li> <li>Reports of seminars and training sessions</li> <li>Records of maintenance</li> </ul>	<p>3-1 C/Ps master the usage of facilities and equipments necessary to conduct research themes on hygiene and quality control.</p> <p>3-2 C/Ps master the analysis procedures instructed by the JICA experts</p> <p>3-3 Freshness control in the fisheries sector is improved</p> <p>3-4 C/Ps can conduct training courses on fisheries products quality improvement</p> <p>3-5 Hygiene and quality control procedures in Morocco are drafted.</p> <p>3-6 Data on hygiene and quality control is presented at trade fairs and exhibitions at least 2 times</p> <p>3-7 C/Ps understand the research planning method for new issues</p> <p>&lt;Activities&gt;</p>	<p>3. Research ability of the hygiene and quality control section of the CSVTPM is enhanced and hygiene and quality control guideline for Morocco is studied.</p>

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	<p>3-1 Train the C/Ps on hygiene and quality analysis technique (multiple times)</p> <p>3-2 Analyze and report the relationship between preservation method and quality change</p> <p>3-3 Hygienic and chemical analysis of fisheries products (components analysis of the raw material and quality analysis of processed products)</p> <p>3-4 Conduct trainings and seminars on quality improvement of processed products by the C/Ps</p> <p>3-5 Introduce the result of the analysis of contents of healthy components of fisheries products at trade fairs and taste testing sessions</p> <p>3-6 Establish a system of quality management in the pilot processing unit of CSVTPM</p>	<p>3-1 Train the C/Ps on hygiene and quality analysis technique (multiple times)</p> <p>3-2 Analyze and report the relationship between preservation method and quality change</p> <p>3-3 Hygienic and chemical analysis of fisheries products (components analysis of the raw material and quality analysis of processed products)</p> <p>3-4 Conduct trainings and seminars on quality improvement of processed products by the C/Ps</p> <p>3-5 Introduce the result of the analysis of contents of healthy components of fisheries products at trade fairs and taste testing sessions</p> <p>3-6 Establish a system of quality management in the pilot processing unit of CSVTPM</p>	<ul style="list-style-type: none"> <li>• Seminars were held twice (Smoked fish: May 2007, hygienic and quality control: Oct 2007.)</li> <li>• Seminar on the methods to control production of histamine will be held in Feb 2008.</li> </ul> <p>3-5. <u>Draft of hygienic and quality control procedures</u></p> <ul style="list-style-type: none"> <li>• Research on the histamine control for semi-preserved anchovies has been completed to complete the necessary data. The result will be presented at the Seminar scheduled in the end of February or March 2008.</li> </ul> <p>3-6. <u>Presentation of the research findings</u></p> <ul style="list-style-type: none"> <li>• Presentation was done in the different forum (see 2-5)</li> <li>• In addition, the seminar on the control of Histamine for semi-preserved anchovies will be held in the end of February or March 2008.</li> </ul> <p>7. <u>Research planning method for new issue</u></p> <ul style="list-style-type: none"> <li>• Possible to develop research plans if within the basic level.</li> <li>• Application skills and knowledge should be further acquired.</li> </ul>	<ul style="list-style-type: none"> <li>• Seminars were held twice (Smoked fish: May 2007, hygienic and quality control: Oct 2007.)</li> <li>• Seminar on the methods to control production of histamine will be held in Feb 2008.</li> </ul> <p>3-5. <u>Draft of hygienic and quality control procedures</u></p> <ul style="list-style-type: none"> <li>• Research on the histamine control for semi-preserved anchovies has been completed to complete the necessary data. The result will be presented at the Seminar scheduled in the end of February or March 2008.</li> </ul> <p>3-6. <u>Presentation of the research findings</u></p> <ul style="list-style-type: none"> <li>• Presentation was done in the different forum (see 2-5)</li> <li>• In addition, the seminar on the control of Histamine for semi-preserved anchovies will be held in the end of February or March 2008.</li> </ul> <p>7. <u>Research planning method for new issue</u></p> <ul style="list-style-type: none"> <li>• Possible to develop research plans if within the basic level.</li> <li>• Application skills and knowledge should be further acquired.</li> </ul>
<p>4. Post harvest quality improvement techniques and fishery products processing techniques for artisanal fisheries villages are</p>	<p>4-1 A Fisheries products quality improvement manual for artisanal fishery is published.</p> <p>4-2 A Fish processing manual for the use of artisanal fishing villages is published.</p>	<ul style="list-style-type: none"> <li>• Project activity report</li> <li>• Manuals made by C/Ps</li> </ul>	<p>4-1. <u>Manuals for the artisanal fishery</u></p> <ul style="list-style-type: none"> <li>• Current situation of quality control and processing of artisanal fishery was reviewed through the investigation of Imsouane, the model village.</li> <li>• Processing and quality control methods of dried mussels in Imsouane were reviewed based on the findings and analysis.</li> <li>• The manual was developed.</li> <li>• There is a plan of developing a brochure and tools for easy understanding of the women will be also developed.</li> </ul>	<p>4-1. <u>Manuals for the artisanal fishery</u></p> <ul style="list-style-type: none"> <li>• Current situation of quality control and processing of artisanal fishery was reviewed through the investigation of Imsouane, the model village.</li> <li>• Processing and quality control methods of dried mussels in Imsouane were reviewed based on the findings and analysis.</li> <li>• The manual was developed.</li> <li>• There is a plan of developing a brochure and tools for easy understanding of the women will be also developed.</li> </ul>

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<p>proposed.</p>	<p>&lt;Activities&gt;          4-1 Study on present quality control and processing situation for harvested fish (study the possible options)          4-2 Select at least one model fishing villages          4-3 Propose a training plan to concerned organizations for the artisanal fishing villagers on fish processing techniques and fish quality control techniques</p>	<p>4-2. Utilisation of the manuals and research result</p> <ul style="list-style-type: none"> <li>• The feed-back of the research results and training for the model village has been undertaken.</li> <li>• The manual was submitted to the INRH Agadir Regional Centre for further popularisation of the research findings.</li> </ul>	<p>5. Management ability of CSVTPM is strengthened.</p>
<p>5. Management ability of CSVTPM is strengthened.</p>	<p>5-1 News letters and Website are revised on a regular schedule          5-2 Over 30% of fisheries processing industries have information exchange (including their participation in seminars) with CSVTPM constantly          5-3 Activities collaboration with concerned organization is added to CSVTPM's action plan          5-4 Draft of medium-term action plan (not less than 3 years) is proposed to INRH</p> <p>&lt;Activities&gt;          5-1 Public Relations (PR) of CSVTPM's research activities are come to</p>	<ul style="list-style-type: none"> <li>• Project activity reports</li> <li>• News letters and Website</li> <li>• Interview and/or questionnaire for the Industry</li> <li>• Interview and/or questionnaire for concerned organization</li> <li>• Seminars, training sessions, exhibitions,</li> </ul>	<p>5-1 News letters and website</p> <ul style="list-style-type: none"> <li>• Website developed and launched in Jan. 2008</li> <li>• News letter: the publication started from Oct 2007 and 4 issues have been developed and circulated to the relevant private sector organisation, companies, and the Government institutions.</li> </ul> <p>5-2 Information exchange with fish processing industry</p> <ul style="list-style-type: none"> <li>• New information system including periodic needs assessment is in place.</li> </ul> <p>5-3 Collaboration with other organisations</p> <ul style="list-style-type: none"> <li>• Participation in the various conferences: Regional meeting for the marine development programme (Oct 2007)</li> <li>• FENIP agreement is to be signed in the end Jan: details and the action plan to be agreed after the signing.</li> <li>• Cadmium research in collaboration with UNICOP, MARDPM and the Official Laboratory of the Veterinary.</li> </ul> <p>5-4. Mid-term action plan drafted and proposed to INRH</p> <ul style="list-style-type: none"> <li>• Drafted and submitted to INRH.</li> </ul>

	<p>stay</p> <p>5-2 Reinforce a technique and information provision system for fisheries processing sector</p> <p>5-3 Reinforce collaboration with concerned organizations</p> <p>5-4 Draft of medium-term action plan of CSVTPM's is made</p>	<p>etc.</p> <ul style="list-style-type: none"> <li>Draft of medium-term action plan</li> </ul>	
<p><u>Inputs</u></p> <p>Japanese side</p>	<p>(1) Long-term experts</p> <p>a. Chief advisor / fishery product processing technology expert</p> <p>b. Coordinator / hygiene and quality control expert</p> <p>(2) Short-term experts</p> <p>2 to 3 technical experts per year</p> <p>(3) Training of C/P</p> <p>1 to 2 C/P per year in each technical field</p> <p>(4) Provision of equipment</p> <p>About 8 million yen</p>		<p>1. <u>Long-term experts</u></p> <p>Total of 3 long-term experts were dispatched.</p> <p>Mr. Yoshinobu Shiratori (Chief Adviser/Fish Processing) 06.2005~06.2008</p> <p>Mr. Shigetomo Nomura (Quality Control) 06.2005~06.2008</p> <p>Ms. Kikuko Sakai (Coordinator/Public Relations) 05.2007~06.2008</p> <p>2. <u>Short-term experts</u></p> <p>Total of 4 short-term experts were dispatched to cover different research themes.</p> <p>Mr. Noboru Takeno (Powder Processing Technology in fish feed) 09.2006~11.2006</p> <p>Mr. Ryou Ishimoto (Microanalysis Operation) 09.2006~11.2006</p> <p>Mr. Toshiyasu Yamaguchi (Polyunsaturated Fatty Acid's Analysis) 02.2007~04.2007</p> <p>Mr. Shigeki Satomi (Retort Food and Spray Dried Food Technology) 05.2007~07.2007</p> <p>3. <u>C/P trainings</u></p> <p>Due to the shortage of staff member at CSVTPM, C/P training for the food processing was delayed.</p> <p>Ms. Naima Bou-M'Handi (Director) Food Processing Technology 2 weeks 2005</p> <p>Mr. Jamal Chaira (Quality Control) Chemical Analysis in Fish Quality Control 1 month 2006</p> <p>Mr. Youssef Radi (Processing) Fish Processing Technology and Quality of Products 1 month 2007</p> <p>4. <u>Equipment</u></p> <p>The equipment, which amounts to 802,120.07DH or ¥11,722,765.61, was provided. The following is the list of the items:</p> <p>FY2005 Pick-up truck DH215,300DH</p> <p>FY2007 Forming Machine ¥1,388,000</p> <p>FY2007 Stirring Tank ¥1,556,000</p> <p>FY2007 Fish Washer ¥1,250,000</p> <p>FY2007 Seaming Machine DH 287,373.75</p>

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	<p>and stationery</p> <p>(4) Costs for facilities and operation costs for facilities, equipment and operation of CSVTPM</p> <p>(5) Costs for consumables for research and development and quality inspections costs for consumables such as samples and medications</p>	<p>Dr. Mariem Kharroubi (Engineer) June 2005~          Dr. Mariem Chikhaoui (Engineer) June 2006~          Dr. Bouchaib Khabaya (Engineer) June 2005~          Mr. Fayssal El Filali (Engineer) June 2005          Mr. Abdeliah Akasbi (Technician) June.2005~          Mr. Said Hanoune (Technician) June 2005~</p> <p>2. JCC          - JCC was held 3 times on Dec 2006 , June 2007 and January 2008.</p> <p>3. Administrative          Ms. Halima Elbaiki (Secretary) 06.2005~          Ms. Zahrh Bendraia (Secretary) 11.2007~          Mr. Abdelaziz El Omrani (Finance) 06.2005~10.2005          Mr. Moulay Said Idrissi (Finance) 10.2005~          Mr. Abdellah Belhal (Driver) 06.2005~          Mr. Abdelaziz Kebib (Driver) ?~          Cleaners 2, Security 3</p> <p>4.&amp;5 Cost of the maintenance of facilities, operation, and consumables for research (except HR cost)</p>
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	FY2005	FY2006	FY2007	Total (DH)	Total (Yen)
Consumable and supply for R&D	251,000	143,000	107,000	501,000	7,264,500
Non Stockes Supply (Utilities)	274,000	403,000	378,000	1,055,000	15,297,500
External expense (Land, maintenance of the building and the premise etc)	408,000	345,000	405,000	1,158,000	16,791,000
Other External Charges (Administrative Cost and Travel Expense)	143,000	152,000	94,000	389,000	5,640,500
Expense of the equipment	135	183	0	318	4,611
Total	1,076,135	1,043,183	984,000	3,103,318	44,998,111

Implementation Process

Main Questions	Sub-Questions	Source of Data	Result
Comparison with the plan	Have the activities been implemented as planned? What are reasons for delay and changes?	- Progress report	
Project Implementation Structure	Have project implementation structure been well functioned? If no, what are problems?	<ul style="list-style-type: none"> <li>• Progress report</li> <li>• Japanese experts</li> <li>• C/Ps</li> <li>• Minutes of meetings of Management Committee and Technical Working Group (CTS)</li> </ul>	<p>1) <u>Management structure</u> The JCC and the Management Committee did not take place in the first year. Based on the recommendation by the Consultative Study, the function of the implementing structure also improved. As the Centre's activities were gradually activated, the function, it would become necessary to have the management and coordination function.</p> <ul style="list-style-type: none"> <li>• The implementing structure consists of the Management Committee and the Technical Working Group (Comite de Technique Scientifique, CTS) as well as the Joint Coordination Committee which is more for the monitoring and evaluation of the project. During the first year, only CTS was held for once to discuss and approve the Plan of Operation (PO) of the project: the Management Committee did not take place. As the project activities started being activated and incurring some results, the first Management Committee was held in May 2007. In terms of the CTS, the role was defined as the forum for the information exchange and discussion for the specific technical issues for the relevant parties. As a result, in May 2007, a meeting to discuss the issue of Cadmium was held with the attendance of the relevant institutions including the private sector. It can be analysed that the implementation structure have increased its effectiveness overtime as the Centre was activated and the needs for the liaising and coordination of the in-house management as well as the external relationship increased.</li> </ul> <p>2) <u>Project management and necessary communication and procedures</u></p> <ul style="list-style-type: none"> <li>• It was observed that from the certain point during the project period, C/P and Japanese experts have the feeling of difficulty in achieving the Project Purpose. However, there was no adjustment proposed.</li> <li>• The proposal of the adjustment of the project including the modification of PDM should be considered and the ideas should be properly shared by the relevant parties.</li> </ul>
	Have project monitoring system been well functioned? If no, what are problems?	<ul style="list-style-type: none"> <li>• Progress reports</li> <li>• Minutes of JCC</li> <li>• Project Consultation Study report</li> <li>• Japanese experts</li> </ul>	<ul style="list-style-type: none"> <li>• In the first year, JCC, which role is monitoring and evaluation of the project, was not held. Following the recommendations submitted through the Consultative Study, it was activated and increased the effectiveness in the second and third years.</li> <li>• The reason of inactiveness may be due to the rather inactiveness in the first year where the establishing the Centre's basis of operation and capacity with the trainings of basic skills were</li> </ul>

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	<ul style="list-style-type: none"> <li>the first priority of the activities.</li> <li>Regarding the JCC's level of participating institutions, it can be pointed out that JCC was not necessarily an optimal institution for the monitoring of new institution like the Centre. The young institution may require monitoring system which can be flexibly operate in order to be able to keep up with the various and changing demand of the advisory.</li> <li>CTS or similar level and flexible form may be more adequate.</li> <li>In general, it should be recognised that the Moroccan side took a maximum efforts to allocate the most suitable C/Ps available.</li> <li>Despite the allocation agreed in the Minutes of the Meeting on 6<sup>th</sup> April 2005 which stipulates 2 C/P (Engineers) to be allocated for the processing unit, the project started with one in the unit. The Unit had to wait for the additional C/P after the Consultative Study in December 2006. The shortage of the staff members affected the project progress by postponing the C/P trainings in Japan and the possible number of the subjects of techniques to be transferred. However, it should be also noted that the increase of the staff members cannot be easy under the circumstances of the civil service retrenchment.</li> </ul>	<ul style="list-style-type: none"> <li>• C/Ps</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• Minutes of meetings</li> <li>• Progress reports</li> <li>• Japanese experts</li> <li>• C/Ps</li> <li>• INHRS and the Ministry of Agriculture, Rural Development and Fisheries</li> </ul>
<p>Ownership of Moroccan side</p>	<p>Have appropriate C/Ps been appointed for the Project?</p>	<p>Have the Morocco's relevant government institutions and the relevant organizations indicated the sufficient understanding and participated in the activities within the project actively?</p>	<p>Have the relevant parties been communicating smoothly?</p>
<p>Communication between Japanese Experts, C/P, JICA and other relevant parties</p>	<p>Have there been any issues and factors (both positive and negative) affecting project implementation?</p>	<p>• Japanese experts</p> <p>• C/Ps</p> <p>• Other stakeholders</p>	<p>• Japanese experts</p> <p>• C/Ps</p>
<p>Effects on project implementation</p>	<p>• The communication between the C/Ps and Japanese Experts was in general smooth and functioned. However, it was observed that the more efforts to share the view on the project management may be necessary. This situation has been improved through the despatching of the long-term expert in charge of public relations/Deputy Chief Adviser.</p> <p>• Due to the organisational structure and administrative procedures of INRH and the Centre, frequent consultation and approvals to process the various administrative matters from INRH. However, it was observed that this system reduces the promptness of the Centre's activities and causes some delays.</p> <p>• Despite of the agreement on the expenses for the consumable supply for the research and development, it did not meet the demand.</p> <p>• The chemical agents and other necessary items require long waiting time to be delivered after placing the orders.</p>		

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ANNEX 4

	If yes, what were they?		
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## Evaluation Five Criteria

Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
Relevance	Are the Project Purpose and Overall Goal still relevant to Morocco's government development policies?	Are the Project Purpose and Overall Goal still relevant to Morocco's government development policies?	<ul style="list-style-type: none"> <li>Fishery sector's roles in Morocco's government economic development policies</li> </ul>	National Social Economic Development Plan (Plan d'Action)	<ul style="list-style-type: none"> <li>The National Initiative for Human Development (L'Initiative Nationale pour le Développement Humain) highlights poverty reduction which are consistent with the assistance to the artisanal fisheries villages.</li> </ul>	A
	Is the Project relevant to Japanese ODA policy?	Are the Project Purpose and Overall Goal relevant to Morocco's government policies for the fishery sector development?	<ul style="list-style-type: none"> <li>Focus and the strategy of the fishery sector development policies</li> </ul>	<ul style="list-style-type: none"> <li>Five-Year Plan (2005-2007) for Fisheries and Social Development</li> <li>Ministry of Agriculture, Rural Development and Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>The Action Plan (Le Plan d'Action 2005-2007) for fisheries sector development sets modernisation of fishery sector as one of the pillars. It includes increasing value added of the fisheries products as well as improvement of the hygiene and quality control in various stages from fish boat to consumers. The project is consistent with the Plan as it promote the value addition through new product development and promotion of the hygiene and quality control.</li> </ul>	A
Relevance	Is the Project relevant to Japanese ODA policy?	Is the Project relevant to key issues of Japan's country assistance policy for Morocco?	<ul style="list-style-type: none"> <li>Assistance strategy and areas of assistance of Japan toward Morocco</li> </ul>	Japanese ODA policy toward Morocco	Fisheries sector development is in line with the discussion at the Economic Cooperation Policy Dialogue in 1997 between the Government of Morocco and Japan. Two governments agreed on the development assistance to the agriculture and fisheries sector development as the one of the six areas of cooperation.	A
	Is the Project relevant to the JICA Country Program for Morocco?	Is the Project relevant to the JICA Country Program for Morocco?	<ul style="list-style-type: none"> <li>JICA's strategy and focus areas of assistance toward Morocco</li> </ul>	JICA Country Program for Morocco	<ul style="list-style-type: none"> <li>JICA Country Program in 2006 identifies the building competitiveness of the domestic industries as a mean of employment generation. The fisheries sector development is one of the focus areas and the promotion of better the technical capacity of artisanal fisheries sector.</li> <li>However, the Program focuses more on the fisheries resource management and artisanal fisheries. It may have diversion from the Project which focuses more on the strengthening the established enterprise sector</li> </ul>	B

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
	Is the selection of the target group (target area and scale of target group) appropriate?	Is selection of the target (area and scale) appropriate in light of the fishery sector's structure and needs?	<ul style="list-style-type: none"> <li>Stakeholders' views</li> <li>Structure of supply chain</li> </ul>	<ul style="list-style-type: none"> <li>Ex-ante evaluation report</li> <li>Project document</li> <li>Needs assessment reports</li> <li>Fish processing companies and their organizations</li> </ul>	<ul style="list-style-type: none"> <li>Fishery products export earns 16% of the total value of the Moroccan export and 55% of the value of agricultural and fishery products in 2002. The total population employed in the fisheries industry including fishing, distribution/ logistics, and processing maintains the employment for 400,000 people in total.</li> <li>In the processing companies, women are the major work force. Development of the processing sector can generate the employment for women.</li> <li>The fisheries industry faces the gradual decrease of the catch and scarcity of resource and, at the same time, the increase competition with the new market entrants into their traditional markets, i.e., Europe. Therefore, the diversification of the fish and marine products and increasing the value added are becoming significant issues.</li> </ul>	A
		Are needs for project activities still high for the target?	<ul style="list-style-type: none"> <li>C/P</li> <li>Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>Japanese experts</li> <li>C/P</li> <li>Government Officials</li> <li>Fisheries industry</li> </ul>	<ul style="list-style-type: none"> <li>C/Ps expressed the demand for the technical capacity building in order to meet the demand of the fisheries industry.</li> <li>The private sector fish and marine products processing firms exhibited the needs for the diversification and improvement of the quality control.</li> </ul>	A
		Is the project strategy adequate vis-à-vis the target sector's development needs?	Does the project approach to assist organizational and technical capacity building of CSVTPM fit to the development needs of fisheries sector?	<ul style="list-style-type: none"> <li>Stakeholders' views</li> <li>Structure of supply chain</li> </ul>	<ul style="list-style-type: none"> <li>Ex-ante evaluation report</li> <li>Project document</li> <li>Needs assessment reports</li> <li>Fish processing companies and their organizations</li> <li>Japanese experts</li> <li>C/P</li> </ul>	<ul style="list-style-type: none"> <li>The demand for the research and development institutions which can provide the adequate advises and technical capacity building were observed.</li> <li>As the fish and marine processing industry in Morocco is largely connected to the European clients, they are relying on the technical information and the distribution channels. In order to change the established, the long-term efforts of awareness building and capacity building of the fisheries industry through provision of technical information and services that can be useful for the industry. Therefore, establishing the organisational capacity of the entity which can play these roles is significant.</li> </ul>
Effectiveness	To what extent was the project purpose achieved?		(Achievement of the Project)	<ul style="list-style-type: none"> <li>(Achievement of the Project)</li> </ul>	<p>The degree of the achievement of the Project Purpose is evaluated using the following indicators.</p> <p>[Indicator 1:] At least 3 types of trial products are proposed for merchandize.</p>	B

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
					<ul style="list-style-type: none"> <li>The indicator were further clarified by the Moroccan and Japanese Evaluation Team with the acknowledgement of the C/P as follows: the trial products can be regarded as the one "proposed for merchandize" when the product are developed through the actual collaborative research and development work with the private enterprise.</li> <li>According to this criterion, there has not been a trial product qualified.</li> <li>However, it was confirmed that some companies have been expressing the interest of enter the joint product development. Therefore, the possibility of partial achievement (e.g., at least one product) may be realised within some certain timeframe.</li> </ul> <p><b>[Indicator 2.]</b> Sanitary and quality control guideline for Morocco is proposed</p> <ul style="list-style-type: none"> <li>The currently available Hygiene Control Guideline ("Le Guide des Bonnes Pratiques d'Hygiene") covers the fisheries industry comprehensively with sufficient details.</li> <li>The Project's approach was not to create the new one but to provide the supplementary information with the adequate and sufficient scientific analysis and recommendations which can facilitate easy implementation of the Guideline.</li> <li>At least one area (Histamine control for semi-preserved anchovies) completed the research phase. It is, therefore, expected that the information packages such as reports and recommendations will be prepared by the end of the project period. A seminar will be held on this issue in Feb or Mar 2008.</li> <li>The Output 1, 4 and 5 proved to be high degree of achievement.</li> </ul> <p><b>[Output 2]</b></p> <ul style="list-style-type: none"> <li>The transfer of basic skills and knowledge for research and development (R&amp;D) in the area of food processing, maintenance of the equipment and facilities were substantially completed, and C/Ps developed manuals and reports and organised seminars. The skills of the application level are yet to be acquired. (Indicators 2-1~2-3 and 2-5.)</li> </ul>	B
	To what extent was the project outputs achieved?		(Achievement of the Project)	<ul style="list-style-type: none"> <li>(Achievement of the Project)</li> </ul>		

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
					<ul style="list-style-type: none"> <li>The trials were developed without collaboration with the private companies due to the difficulty in identifying the partners.</li> <li><b>[Output3]</b></li> <li>The transfer of basic skills and knowledge for conducting research and analysis in the area of hygiene and quality control and maintenance of the equipment and facilities were substantially completed. C/Ps developed manuals and reports and organised seminars. The skills of the application level are yet to be acquired. (Indicators 3-1, 3-2, 3-4, 3-6 and 3-7.)</li> <li>Regarding the comprehensiveness of the Hygiene Guideline with sufficient detail, the project did not undertake the review of the Guideline as a whole. Instead, the project focused to develop information supplements and recommendation for the easy implementation of the Guideline for the limited areas (e.g., histamine control of Semi-preserved Anchovies.)</li> </ul>	
Have the outputs of the Project been contributing to achievement of the Project Purpose?	Does the Project comprise sufficient number of the Outputs in order to achieve the Project Objective?	<ul style="list-style-type: none"> <li>Views of Japanese Experts</li> <li>C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>Japanese Experts</li> <li>C/Ps</li> </ul>	<p>The number of the Outputs can be regarded as enough to achieve the Project Purpose in principle. However, it was not possible to achieve the Project Purpose with the some external conditions such as the stiffness of the industries for the change and the project design. Due to the delay of the progress in Output 2, the necessary amount of activities for information dissemination with the result obtained was not able to be done sufficiently.</p>	B	
Do the proper understandings of the fishery sector's needs contribute to the achievement of the Project Purpose?	Do the activities of CSVTPM have complementarities to the other public and private institutions in the areas	<ul style="list-style-type: none"> <li>Views of the fisheries industry</li> <li>Views of the government institutions</li> <li>Views of C/Ps</li> <li>Views of the Japanese experts</li> <li>C/Ps views</li> <li>Japanese experts' views</li> <li>INRH, Government organisations'</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries industry</li> <li>Government institutions</li> <li>C/Ps</li> <li>Japanese Experts</li> <li>C/P</li> <li>Japanese experts</li> <li>INRH and other Government</li> </ul>	<ul style="list-style-type: none"> <li>The research results were reflected into the PO and approved by CTS.</li> <li>It was contributed for CSVTPM to grasp the needs of the fisheries industry.</li> <li>It also contributed to the capacity building of CSVTPM to undertake similar research in future (already applied to the Information System is in place. Companies visit for specific research topics.)</li> <li>The private companies are now started to recognise the complementarities of CSVTPM with their own and with other government institutions.</li> <li>Due to the confusion in demarcation, other Government institutions are yet to perceive the complementarities.</li> </ul>	A	
						C

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
		of fish and marine product processing and hygienic and quality control for the fisheries sector?	view • Fisheries industry's view	entities • Fisheries industry	<p>1) Processing</p> <ul style="list-style-type: none"> <li>Private sector can provide the idea of new products, identification of markets, investment for the production facilities, securing the channels, whereas the Centre can provide the technical information on the new products as well as to conduct the testing and analysis.</li> <li>Official laboratories' main function is the regulatory side for controlling exported goods. There are also the private laboratories, but the main functions of these laboratories are provision of the certification.</li> </ul> <p>2) Hygiene and quality control</p> <ul style="list-style-type: none"> <li>There are official laboratory and certified laboratory accredited for certification. But private sector does not go to the former as it is related to the export licensing.</li> <li>The Centre can use its facilities for the spot testing.</li> </ul>	B
		Does the enhancement of C/Ps' research ability of the fish processing section of the CSVTPM contribute for products development?	<ul style="list-style-type: none"> <li>Fisheries industry's view</li> <li>Evaluation of the participants of the seminars</li> <li>Japanese experts' evaluation</li> <li>C/Ps' self-evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries industry</li> <li>Feedbacks of the seminar participants</li> <li>Partner companies</li> <li>Japanese experts</li> <li>C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>In order to deal with the demand for the new technology, the Centre's staff members are required to be familiarised with the applied technology.</li> <li>Though the technical transfer is more or less finished, the actual product development is yet to be achieved.</li> </ul>	B
		Do the enhancement of the research ability of CSVTPM in the area of hygiene and quality control contribute for CSVTPM to undertake review of the guideline?	<ul style="list-style-type: none"> <li>Japanese experts' evaluation</li> <li>C/Ps' self-evaluation</li> <li>INRH and the government' evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Japanese experts</li> <li>C/Ps</li> <li>INRH etc</li> </ul>	<ul style="list-style-type: none"> <li>The revision of the Guideline requires wide areas of the knowledge and research ability. Therefore, the enhancement of the research ability of the Centre contributed to undertake the review of the Guideline as partially materialised by the histamine control study.</li> </ul>	B
		Is the research on the artisanal fisheries' post-harvest handlings effective tools for the improvement of the fish	<ul style="list-style-type: none"> <li>Fisheries industry</li> <li>C/Ps view</li> <li>Other relevant institutions'</li> </ul>	<ul style="list-style-type: none"> <li>Fisheries industry</li> <li>C/P</li> <li>Fishery training</li> </ul>	<ul style="list-style-type: none"> <li>As the artisanal fishing is also a source of significant amount of the fish catch, it is adequate to support it as one of the major suppliers of the industry.</li> </ul>	B

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
		<p>products processing industry?</p> <p>Does the management ability of CSVTPM for public relations contribute to the effective identification of the research theme and partner companies for product development and hygiene and quality control?</p>	<p>view</p> <ul style="list-style-type: none"> <li>• Feedbacks from partner companies</li> <li>• Views of the fisheries industry</li> <li>• Views of C/Ps</li> <li>• Number of the inquiries and the relations of any PR, seminars and other activities</li> </ul>	<p>schools</p> <ul style="list-style-type: none"> <li>• Partner enterprises</li> <li>• Fisheries industry</li> <li>• C/P</li> <li>• Records of the training and the record of the inquiry</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• Some enterprises testified that they became interested in the Centre through the participation in the seminars and exhibitions, and reading news letters and brochure.</li> <li>• There were a few companies contacted for the new production methods.</li> <li>• However, in order to start the product development, the companies also have to ensure the issues other than technical matters, i.e., possible source of finance, market channel, and so on. Therefore, the joint product development is yet to be achieved.</li> </ul>	B
	<p>Are there any positive or negative factors affecting achievement of the Project Purpose?</p>		<ul style="list-style-type: none"> <li>• Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder</li> </ul>	<ul style="list-style-type: none"> <li>• The determinants for the companies to start product development are not only the technical issues, but also various factors. It is especially true for the Moroccan fish and marine product processing industry which has traditionally led by European markets, and not many experience in the development by its own. The sensitisation and building up the capacity of the industry are necessary. For this kind of work requires long-term commitment, The delay in starting communicating the industry, the Project is not able to have sufficient time to search and interact with candidates for joint product development.</li> <li>• For the hygiene and quality control, the logics between the Overall Goals, Project Purpose, Outputs and the Activities are not well aligned.</li> <li>• As the hygiene guideline was found out and, subsequently, the Project Purpose revised, some part of the activities could not fit to produce the output to eventually contribute to the achievement of the Project Purpose.</li> </ul>	
			<ul style="list-style-type: none"> <li>• Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder</li> </ul>		

Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
Efficiency	Are quality, quantity and timing of the Project inputs and activities appropriate for generating outputs?	Are the number, the expertise, and the timing/duration of dispatching Japanese experts appropriate?	<ul style="list-style-type: none"> <li>Actual of inputs provided</li> <li>The results of the experts' activities</li> <li>C/Ps view</li> <li>Japanese experts' view</li> <li>Other stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>(Actual inputs provided)</li> <li>Project progress reports</li> <li>Experts' reports</li> <li>Japanese experts</li> <li>C/P</li> <li>The government and other institutions</li> </ul>	<ul style="list-style-type: none"> <li>The inputs from Japanese side were sufficiently provided.</li> <li>Regarding the wide range of the works to establish CSVTPM's technical and operational function as a new organisation, it was understood that the work load for the long-term experts who have to do both administrative and technical works. Therefore, one long-term expert in charge of communication was assigned in the 3<sup>rd</sup> year. The public relations activities have activated with this additional allocation of the expert.</li> </ul>	B
		Are items, quantities, and timing of procurement of equipments appropriate? Are materials/equipment procured effectively utilized?	<ul style="list-style-type: none"> <li>Actual of inputs provided</li> <li>The degree of the utilization of the equipment</li> <li>Japanese experts' view</li> <li>C/Ps view</li> <li>Other stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>(Actual Inputs provided)</li> <li>Japanese expert</li> <li>C/P</li> <li>The government and other institutions</li> </ul>	The equipment provided by the Project was installed in the right time and utilised.	A
		Are the selection of timing/duration, contents and methods of trainings appropriate?	<ul style="list-style-type: none"> <li>Actual trainings provided</li> <li>Japanese experts' view</li> <li>C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>(Actual trainings provided)</li> <li>Japanese experts</li> <li>C/P</li> </ul>	The effectiveness of the C/P training was affected by insufficient number of the C/Ps in the Processing Unit. As there was only one C/P in the Unit, it was not able to send the C/P for the training for a long term.	B
	Are the number, the distribution with in CSVTPM, and the qualification, background and the capacity of C/Ps appropriate?	<ul style="list-style-type: none"> <li>Dispatched C/P's back ground</li> <li>Japanese experts' view</li> <li>C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>(Actual allocation of C/Ps)</li> <li>Japanese experts</li> <li>C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>Moroccan side ensured the number of the C/P in general.</li> <li>There were the differences in understanding on the number of the C/P between Japanese and Moroccan side. Japanese side understood that the 2 engineers should be in place for the Processing unit, whereas the Moroccan side provided the number specified in the M/M at the time of R/D regardless of the section and the titles (engineer and technician.)</li> </ul>	B	

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
		Is the budget allocation of Moroccan side adequate in terms of the size, items and the timeliness of the allocation?	<ul style="list-style-type: none"> <li>• Actual allocation of budget from Morocco's government</li> <li>• Total annual budget of CSVTPM</li> <li>• C/Ps views</li> <li>• Japanese experts</li> <li>• Opinion from the Government</li> </ul>	<ul style="list-style-type: none"> <li>• Actual allocation of budget from Morocco's government</li> <li>• Total annual budget and financial statements of CSVTPM</li> <li>• C/Ps</li> <li>• Japanese experts</li> <li>• Other stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Based on the recommendation by the Consultative Study, an additional C/P was dispatched for the Processing Unit</li> <li>• Generally, the cost of maintaining the building and premises, utilities and other operational costs were covered by the Moroccan side.</li> <li>• Despite the agreement stipulated in the M/M at the time of R/D, out of 1,046,869DH which consumed for the supply for R&amp;D in the three years (2005-2007), 545,000DH (52%) was expended from the Japanese side.</li> </ul>	C
		Are the research themes, contents, duration and timing of training to C/Ps adequate to attain output 2?	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• The activities are effective to achieve the Output2, but the link from the trainings, seminars to actual identification of the partner enterprises may require additional activities in collaboration with the information and communication in Output5.</li> <li>• It is also observed that the trainings takes relatively long-time until started to interact with the enterprises through the first Seminar in 2007. The delay in training is partially due to the insufficient number of C/P.</li> <li>• Due to the delay of the progress and inability of identify a partner for joint product development, trainings in the application environment have not been done.</li> <li>• Considering the wide range of the processing techniques, it may be reasonable to continue the trainings through OJT throughout the project.</li> <li>• Seminar has to be waited until 2007 to hold the first seminar. The maturity of the skills of C/P might have to wait until this time for the presentation. However, it revealed to be effective in developing the relationship with the enterprises.</li> <li>• For the further identification of the partner companies, though, another step with extensive communication may be required before going into the actual joint research activities. By</li> </ul>	B

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result
	Main Questions	Sub-Questions				
		Are the research themes, contents, duration and timing of training to C/Ps adequate to attain output 3?	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<p>discussing cost of the research and eventual investment and other relevant information should be provided.</p> <p>Though the Outcome is targeting the preparation of the hygiene and quality guideline, there is no activity planned explicitly for the preparation of the guideline in PDM.</p> <p>Nevertheless, basic trainings and subsequent research in the various areas have been undertaken and the results which may be able to be presented as a part of the contribution to the overall betterment of the hygiene and quality improvement of the industry if not for the guideline.</p> <ul style="list-style-type: none"> <li>• There have been some results produced such as histamine control of semi-preserved anchovies and studies in nutritional contents such as unsaturated fatty acids and vitamins.</li> <li>• Other researches have been also done based on the request of the industries (e.g., research on white particles in canned sardines and research on cadmium of canned foods)</li> </ul>	B
		Are the coordination and collaboration arrangement of the activities under the output 4 adequate in order to entail the output?	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<p>The collaboration with other institution is in progress with the discussion started with INRH Agadir Centre. However, it was not yet submitted to the other agencies such as CNV etc.</p>	B
		Are the strategy, contents, timing and frequency/coverage of PR and promotion activities effective to achieve output5?	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> <li>• Fisheries industry's view</li> </ul>	<ul style="list-style-type: none"> <li>• (Actual activities undertaken)</li> <li>• Japanese experts</li> <li>• C/Ps</li> <li>• Fisheries industry's view</li> </ul>	<ul style="list-style-type: none"> <li>• The public relation activities have activated mainly after the arrival of the long-term expert in charge in May 2007. During the <i>training phase</i> (from the launch of the Project until the first Seminar) to be up to May 2007, there were not many activities undertaken (the participation in the exhibition was decreased also compared with 2006.)</li> <li>• Timing/frequency of the PR activities are not easy to measure as it has not been yet considered as routine, but rather trial basis.</li> <li>• The information dissemination is effective to establish network with the private sectors as it is perceived favourable as many companies witnessed that they became interested in the Centre through information disseminated.</li> </ul>	B

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Five Evaluation Criteria	Evaluation Questions		Data Required	Source of Information	Analysis	Result	
	Main Questions	Sub-Questions					
Impact	What were positive or negative factors affecting efficiency of the Project?		<ul style="list-style-type: none"> <li>Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders</li> </ul>			
		Is it expected that the overall goal of the Project will be achieved?	<ul style="list-style-type: none"> <li>Is it expected that the research results for the new fish processing technology be utilized and commercialized?</li> </ul>	<ul style="list-style-type: none"> <li>Japanese experts' view</li> <li>C/Ps' view</li> <li>Fisheries industry's view</li> <li>Number of inquiries from fisheries industry and participants of the seminars</li> <li>The number of the pipeline projects under negotiation</li> </ul>	<ul style="list-style-type: none"> <li>Japanese experts</li> <li>C/Ps</li> <li>Fisheries industry</li> <li>Records of inquiries</li> <li>The number of participants of the seminars</li> <li>Pipeline projects under negotiation</li> </ul>	<ul style="list-style-type: none"> <li>The Project has been increasing the effectiveness for the awareness building of the fisheries processing industry. The agreement with FENIP for the joint product development can be regarded as the sign.</li> <li>It would be able to predict that finding partner organisations may be still not easy. By the continuous efforts to interact with enterprises, it would be possible to find the partners.</li> <li>To attract the private sector, the research and development planned from the aspect of the private enterprise should be further promoted.</li> </ul>	B
	Are any positive and negative impacts of the Project expected?	Is it expected that the adequate hygiene and quality control technologies developed by CSVTPM utilized and practiced by the fisheries industry?	<ul style="list-style-type: none"> <li>Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>Some on-going research in the area of hygiene and quality control is done based on the request of the private sectors, the possibility of the utilisation of the findings are high.</li> </ul>	B
		Is it expected that the artisanal fishing industry improves its hygiene and quality control practices by adopting the guidances developed by CSVTPM?	<ul style="list-style-type: none"> <li>C/Ps views</li> <li>Plan of the other fishery training organizations and their willingness for cooperation</li> <li>Ministry of Agriculture, Rural Development and Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>C/Ps</li> <li>Fishery training organizations</li> </ul>	<ul style="list-style-type: none"> <li>The manuals of the dried mussels are to be developed to the brochures and other tools of the easy implantation. With the further collaboration with other institutions, the utilisation of the research outputs can be facilitated, and the Overall Goals concerning the artisanal fisheries are expected to be achieved.</li> </ul>	A	
		Will the Morocco's government policies and the institution fish processing sector development be	<ul style="list-style-type: none"> <li>Ministry of Agriculture, Rural Development and Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of Agriculture, Rural Development and</li> </ul>	<ul style="list-style-type: none"> <li>Through the research findings such as the histamine control of semi-preserved anchovies, CSVTPM can provide the information for the regulatory authorities to improve the quality control system with sufficient scientific analysis.</li> </ul>	B	

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	Main Questions	Sub-Questions				
		strengthened?	<ul style="list-style-type: none"> <li>• INRH</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• Fisheries</li> <li>• INRH</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• The Regional Government project, "Pole de Competite" is the opportunity for CSVTPM to provide R&amp;D and other services. The industry-academic collaboration can be strengthened.</li> </ul>	
		Are there any other positive and negative impacts expected?	<ul style="list-style-type: none"> <li>• Stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder</li> </ul>	Nothing particular.	
	Does the project contribute to entail the expected impacts?	Can CSVTPM's activities be strengthened by the project be expected to entail the synergy and complementarities with other institutions' activities?	<ul style="list-style-type: none"> <li>• INRH</li> <li>• Other support institutions</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• INRH</li> <li>• Other support institutions</li> <li>• Japanese experts</li> <li>• C/Ps</li> </ul>	<ul style="list-style-type: none"> <li>• The research activities of hygiene and quality control can complement the function of the Official Laboratory of Veterinary and DIP for the control: the Centre's research activities can be able to assist the problem solving in order to satisfy the standard set for the Export or any certification.</li> <li>• This function can be also applied for the product development.</li> </ul>	B
Sustainability	Are the vision and roles of CSVTPM clearly defined and understood by the stakeholders?	Does the mid-term action plan clearly stipulate the vision and roles of CSVTPM?	<ul style="list-style-type: none"> <li>• Mid-term action plan</li> <li>• Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>• Mid-term action plan</li> <li>• Stakeholder</li> </ul>	<ul style="list-style-type: none"> <li>• The Mid-Term Action Plan comprises the many activities which are continuation of the current activities. Therefore, the direction set by the Project and the vision are maintained in the Mid-Term Action Plan.</li> <li>• However, the vision and the functions started to be formed and need to be sharpened. The interaction with the industry and their needs are expressed more explicitly than before. The clear demarcation with other Government institutions is necessary.</li> </ul>	B
		Are the stakeholder well familiarized with the service of CSVTPM?	<ul style="list-style-type: none"> <li>• Stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholder</li> </ul>	<ul style="list-style-type: none"> <li>• Whereas the private sectors started to recognise, the understandings of the Government institutions should be enhanced.</li> </ul>	
	Is it expected that policy support for the activities of CSVTPM will be continued after the Project completion?	Is it expected that policy support from Morocco's government for fish processing industry development will be continued after the Project completion?	<ul style="list-style-type: none"> <li>• National Social Economic Development Plan, Fishery sector plan</li> <li>• Ministry of Agriculture, Rural Development and Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>• National Social Economic Development Plan, Fishery Sector development plan</li> <li>• Ministry of</li> </ul>	<ul style="list-style-type: none"> <li>• The Regional Government is currently promoting the plan of "Pole de Competitivite" where the cluster of the fisheries industry is constructed and the networks of relevant institutions are facilitated. This is to increase the value added.</li> <li>• CSVTPM can play the significant roles in it as R&amp;D institution.</li> </ul>	A

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	Main Questions	Sub-Questions				
	Has C/P agency acquired capacities for continuing the activities for sustaining the effects of the Project?	Has C/P acquired sufficient technical knowledge and skills to sustain the effect of the Project?	<ul style="list-style-type: none"> <li>Evaluation on the C/Ps' level of acquisition of technical skills</li> <li>Evaluation on CSVTPM's capacity of networking and PR</li> </ul>	Agriculture, Rural Development and Fisheries <ul style="list-style-type: none"> <li>Japanese expert</li> <li>C/P</li> </ul>	<ul style="list-style-type: none"> <li>C/P acquired basic research and analytical skills in the relevant areas.</li> <li>In case of some problems which may require applied skills, more times for solving the problems and external resource may be required.</li> </ul>	B
		Does CSVTPM establish the sufficient management capacity in order to sustain the activities based on the needs of the fishery sector?	<ul style="list-style-type: none"> <li>Management structure of CSVTPM</li> </ul>	<ul style="list-style-type: none"> <li>C/P</li> <li>Japanese experts</li> </ul>	<ul style="list-style-type: none"> <li>The planning of the activities is done based on the annual needs assessment. Through FENIP agreement, the needs of the private sector may be channelled even more smoothly.</li> <li>Due to the budgeting system which allows the request of the budget only in the year, the difficulty can be found in accommodating the needs arising during the fiscal year.</li> <li>The system also does not allow responding promptly to the needs of the private sector.</li> </ul>	B
	Is it expected that the Morocco's government allocate sufficient budget for the activities for CSVTPM?	<ul style="list-style-type: none"> <li>Annual Budget estimate and financial reports</li> <li>INRH and the Ministry of Agriculture, Rural Development and Fisheries' view</li> </ul>	<ul style="list-style-type: none"> <li>Annual Budget estimate and financial reports</li> <li>INRH</li> <li>Ministry of Agriculture, Rural Development and Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>A significant part of the consumable expenses was covered by the Moroccan side. The Moroccan side needs to ensure the amount to be fully financed after the Project.</li> <li>Some companies expressed the possibility of paying necessary expense if it is perceived to meet their demand. This may be the sign of the possibility of generating income.</li> <li>However, for the product development, it was also expressed that companies will request for some cost-share with the Centre. This is to reduce the risk factor for the companies. The fund to undertake such project should be also necessary to be projected and budgeted.</li> </ul>	B	
	Does the mid-term action plan comprise the feasible actions well-reflecting the	<ul style="list-style-type: none"> <li>Mid-term action plan</li> <li>Japanese experts' view</li> </ul>	<ul style="list-style-type: none"> <li>Mid-term action plan</li> <li>Japanese experts</li> </ul>	<ul style="list-style-type: none"> <li>The Mid-term Action Plan comprises the activities which are the continuation of the Project or some activities which could not be included into the Project. Therefore, it is manageable if the necessary human and financial resources are secured.</li> </ul>	B	

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	Main Questions	Sub-Questions				
Is it expected that skills/knowledge transferred will be sustained and developed by CSVT/TPM?	outputs of the Project?		<ul style="list-style-type: none"> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• C/Ps</li> </ul>		
	Do C/Ps establish good working relationship and network with the fishery sector stakeholders?		<ul style="list-style-type: none"> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> <li>• Other stakeholders' view</li> </ul>	<ul style="list-style-type: none"> <li>• Japanese experts</li> <li>• C/Ps</li> <li>• Other stakeholder's view</li> </ul>	<ul style="list-style-type: none"> <li>• The good and trusted relationship with the industry is now started to grow. C/Ps are started to learn the problem solution and the way to communicate with the private sector actors.</li> <li>• Agreement on joint product development with FENIP is discussed and to be signed.</li> <li>• Some researches such as the problem of white particles in the sardine can and cadmium analysis is started responding the request from the private sector.</li> <li>• The relationship with the Government institutions should be improved by clarification of the Centre's mission and make extra efforts to seek the collaborative work with them.</li> </ul>	B
	Do C/Ps acquire the skills in their fields of specialization to update and develop the skills and knowledge in order to cope with the changing needs of the industry?		<ul style="list-style-type: none"> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• Japanese experts</li> <li>• C/P</li> </ul>	<ul style="list-style-type: none"> <li>• C/P is able to gather the information which can be obtained through Internet and personal networks. Therefore, problems within the limited areas can be solved though it may take time.</li> <li>• It is necessary to expand the areas of the knowledge through interacting and responding to the new demands from the industry.</li> <li>• To collect information, networking as well as to be a member of the academic and industrial organisations should be realised.</li> <li>• One of the areas for the improvement is activating the CTS. CTS has been defined as the small meetings with the experts and technical persons from various institutions and private sectors. It is to exchange information and ideas and discuss specific issues. Many C/Ps expressed CTS as useful.</li> </ul>	C
Are the equipment maintained properly by C/Ps?		<ul style="list-style-type: none"> <li>• Status of the maintenance</li> <li>• Japanese experts' view</li> <li>• C/Ps' view</li> </ul>	<ul style="list-style-type: none"> <li>• Observation of the site</li> <li>• Japanese experts</li> <li>• C/Ps'</li> </ul>	<ul style="list-style-type: none"> <li>• The equipment is properly maintained with the manuals of the usage developed.</li> <li>• C/P was trained for the maintenance.</li> <li>• The list and the contacts of suppliers was also developed in case of any needs.</li> <li>• As C/Ps are yet to experience the serious case, some uncertainty remains in terms of the ability of maintenance and repair.</li> </ul>	B	

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