

JAPAN INTERNATIONAL COOPERATION AGENCY RABAT

THE FISHERIES TECHNICAL TRAINING
PROJECT IN THE KINGDOM OF MOROCCO

EX-POST EVALUATION REPORT

AGADIR: February 25th, 2005

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ABBREVIATIONS LIST

CAPM : Certificat d'Aptitude Professionnelle Maritime

CQPM : Centre de Qualification Professionnelle Maritime

EG : Evaluation Grid

EPM : École Professionnelle maritime

ISTPM : Institut Spécialisé de Technologie des Pêches Maritimes

ITPM : Institut de Technologie des Pêches Maritimes

JICA: Japan International Cooperation Agency

LM : Lieutenant mécanicien

LP : Lieutenant de Pêche

MAD : Millions of DIRHAMS

OM3 : Officier Mécanicien de 3^{ème} Classe

PDM: Project Design Matrix

PPL : Patron de Pêche au Large

TOR : Terms of reference

TSC: Training Special Contracts

CSF : Contrats Spéciaux de Formation

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FOREWORD

The OPTIM CONSEIL Cabinet thanks people who contributed to the realization of this ex-post evaluation study on the Fisheries technical training project in Morocco.

We also thank the Japanese International Cooperation agency JICA for the confidence that it granted us to achieve this study.

OPTIM CONSEIL cabinet had the responsibility to achieve a post evaluation on the cooperation project financed by JICA entitled "The Fisheries technical Training Project". This project has been realized in the "Institut Spécialisé de Technologie des Pêches Maritimes" (ISTPM) of Agadir and "Institut de Technologie des Pêche Maritimes" (ITPM) of Safi and Al Hoceima.

The study was conducted in accordance with the prescriptions mentioned in the terms of reference (TOR). The aim was to evaluate the impact and the sustainability of the project since its final evaluation in 2001. The study was conducted on the three sites of the JICA project: ISTPM of Agadir, the ITPMs of Safi and Al Hoceima. (see the map in next page)

All informations collected during this study and the report of post evaluation are destined to an internal use and is considered the property of JICA.

These informations are therefore confidential and cannot be communicated to anyone without the direct consent of the persons responsible in JICA.

The present report is distributed in four copies:

- Three copies sent to the JICA;
- One copy for the OPTIM CONSEIL cabinet

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Map of Morocco



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1. SCOPE OF POST EVALUATION STUDY

This report is the result of an ex-post evaluation study of the fisheries technical training project in Morocco. This study has been achieved by M. Hamid EL BENNOURY, and M. El Houssine BOUFOUS, consulting members of OPTIM CONSEIL cabinet. The report contains the following parts:

- Historic and actual situation of the training in Moroccan fisheries
- Evaluation of the project's impact on the technical training and the development of the fishing sector
- Evaluation of the project's sustainability in order to clear the degree of the continuity by the concerned parts of the project fall-out.
- Conclusions
- Recommendations

2. PROJECT OVERVIEW

The overall goal of the project is to improve the teaching level in the "centres de qualification professionnelle maritime" (CQPMs). In a specific way, the project aimed to rise up the technical level of the fishermen, the development of the inshore fishing and the sea products processing.

Initially, the project was planned for 5 years (from June 19, 1994 to June 19, 1999). It started in the ISTPM of Agadir, and extended for two more years. This overtime is due to the delay accused in the realization of the goal related to sea products processing section.

During the realization of the project, some different contributions have been done as well by the Japanese part and the Moroccan part (see the evaluation's reports of March 23, 2001, of December 16, 1998, December 10, 1996, April 18, 1995 and March 31, 1994). These contributions concerned:

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- Material and equipment intended to the processing laboratories, quality control laboratory and other shops. These facilities are affected for the improvement of the training system.
- Practical training for Moroccan instructors in Japan
- Missions of Japanese expert in short and long-term to Morocco
- Construction of buildings and infrastructures like laboratories, residencies and seminaries center.

 These are repercussions of the previous cooperation's projects with the JICA.
- Use of the ships-schools, acquired during the previous cooperation's projects with the JICA, for the practical training

On the other hand, the project allowed the realization of several actions that helped to the reach of the overall goal. Among these actions :

- Organization and animation of seminars by Japanese experts
- Development and standardization of the curriculum and instructor's manuals
- Introduction of processing and valorization section in The ISTPM of Agadir and in the ITPM of Safi
- Elaboration of practical training manuals of fish processing and quality control.

These actions allowed the following effects:

1. Technical effects

The elaboration and standardisation of curriculum leads to the improvement of the training quality in the three institutes concerned by the project. This improvement is shown in the fishing sector (after the acquisition of the ships-schools) and in fish-processing sector. In these areas, the instructors are autonomous to assure the practical training by them selves.

2. Institutional effects

The improvement of the expertise of the instructors (due to the practicum and to the assistance of the Japanese experts) as well as the planning of the educational facilities led to an institutional promotion of the three institutes involved in the project. Thus, the institutes of Safi and Al - Hoceima, which were initially CQPMs, are promoted to "Institut de Technologie des Pêches Maritimes" (ITPMs). The institute of Agadir is promoted to "Institut spécialisé de technologie des pêches maritimes" (ISTPM) while it was ITPM in the beginning of the project.

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3. POST EVALUATION METHODS

3.1. Method used

The post evaluation method used is based on the evaluation grid (hereinafter referred to as EG) and on the Project Design Matrix (hereinafter referred to as PDM). The EG is an efficient tool for evaluating any project post changes in a systematic manner. The PDM shows the logical inter-relations between the elements of the project. The first PDM (see PDM I in ANNEX IV) has been prepared in December 1998 when the Japanese mission visited the project. Then, this PDM (see PDM II in ANNEX IV) has been modified for the project's final evaluation. Now, we correct this PDM to adapt it to the situation of ex post evaluation study in order to analyze the impact and the sustainability after the final evaluation.

The indicators, data sources as well as the data collection method are described in the EG (see EG in ANNEX II). The EG has previously been validated by the JICA office in Rabat. The visits have been done on the project sites (ISTPM Agadir, ITPM of Safi and ITPM of Al Hoceima) and a set of interviews was done with the responsibles of the institutes, the students, the instructors, the directors of the private companies and the Japanese senior volunteers by using a questionnaire established from the EG.

3.2. The post evaluation criteria analysis

3.2.1. Impact

The post evaluation of the impact has been examined according to indicators measuring directly or indirectly the positive and negative changes produced by the project since its achievement in 2001.

3.2.2. Sustainability

The sustainability of the project has been analyzed according to the contributions, activities and results focusing on the autonomous continuity of the project at the institutional, financial and technical levels.

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4. POST EVALUATION RESULTS

4.1. Fisheries training situation in Morocco

4.1.1. Overview

The fisheries training began in Morocco in 1939 with the creation of the maritime professional school (hereinafter referred to as EPM) of Safi. Then, the school of Agadir was created in 1942. Other EPMs have been created, thereafter, in cities like Casablanca, Laayoune and Al hoceima.

The EPMs functioned as training centers in a qualification level. The teaching consisted in preparing some fishermen to practice the fishing at board. The EPMS delivered a "Certificat d'Aptitude Professionelle Maritime" (hereinafter referred to as CAPM) for trainees.

In 1980's, the school of Agadir was erected to the ITPM forming the "Patron de Pêche au Large" (hereinafter referred to as PPL) and the "Officier Mécanicien de 3ème classe".(hereinafter referred to as OM3)

In 1990's, fisheries training sector was reorganized. As a result, the EPMs were promoted to "Centres de Qualification Professionnelle maritime" (hereinafter referred to as CQPMs).

Actually, Moroccan fisheries training is carried out in the "Institut Spécialisé de Technologie des Pêches Maritimes" (hereinafter referred to as ISTPM) in Agadir, in three ITPMs (Safi, Tan tan and Al hoceima) and in four CQPMs (Dakhla, Laâyoune, Casablanca and Larache).

It is very important to mention the primordial role that the Moroccan-Japanese cooperation played especially in the enhancement of the fisheries training and supply of equipment, laboratories and facilities.

4.1.2. Actual situation

The following chart summarizes the level and the characteristics of fisheries training in Morocco.

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Table 01: Level and characteristics of the fisheries training in Morocco

CITY	INSTITUTE	LEVEL	BRANCH	DIPLOMAS
			- Fishing	- LP
		Specialized	- Machine	- LM
Agadir Agadir	ISTPM*	Technician	- Fish	- Fish Processing
			processing	Specialized Technician
			- Fishing	- PPL
			- Machine	- OM3
Safi	ITPM*	Technician	- Fish	- Qualification Certificate
			Processing	in Fish Processing
			- Fishing	- PPL
Al-Hoceima	ITPM*	Technician	- Machine	- OM3
			- Fishing	- PPL
Tan-tan	ITPM	Technician	- Machine	- OM3
	СQРМ	Qualification	- Fishing	- CAPM fishing
Layoune			- Machine	- CAPM machine
			- Fishing	- CAPM fishing
Dakhla	CQPM	Qualification	- Machine	- CAPM machine
			- Fishing	- CAPM fishing
Casablanca	СQРМ	Qualification	- Machine	- CAPM machine
			- Fishing	- CAPM fishing
Larache	CQPM	Qualification	- Machine	- CAPM machine

^{*}Institutes concerned by the Fisheries Technical Training Project

4.1.3. Staff evolution

The trend of the number of students within the three Institutes concerned by the project is presented in the figures 1, 2 and 3 of the Annex I. The student's numbers to be subscribing in the three institutes are fixed by the "conseil de perfectionnement" formed by these institutes and professionals sector members. This counsel organizes, yearly, a meeting in which meet the institutes responsible and industrial

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representatives. These meetings provide an opportunity to discuss the report of each institute and the situation in the fishing sector. It is also an opportunity for the professionals to express their needs in terms of the training and education needs. It's on these bases that, the number of students to be subscribed for the following year is defined.

The number of students subscribed fluctuates in fishing and machine sections. This fluctuation is due to the problems owed to the resource rarefaction and prolonged biologic rests. Concerning fish processing and valorization section, the subscribed students number increases each year because of the increase demand of professionals.

4.2. Post evaluation of the impact

4.2.1. Impact on the functioning of the institutes

4.2.1.1. Impact on the welcome capacity

The project, assisted by the repercussions of the previous projects, permitted a meaningful increase of the welcome capacities of the institutes concerned by the project, via the construction of a school residency and two hotels-residencies for national and international seminaries. These increases are illustrated in figure 04 of the annex I. The figure 04 shows that the ISTPM of Agadir has a more important welcome capacity than the ITPM of Safi and the ITPM of Al Hoceima. This is mainly due to the JICA project.

We also observe that in 2002 the ITPM of Al Hoceima self-financed the construction of a hotel residency for seminaries. In 2003, the ITPM of Safi self-finances the construction of a hotel residency and increases the welcome capacity of its school residency. This result is due to the positive competition that reigns between the institutes of fisheries training that tried to get at the level of the ISTPM of Agadir

4.2.1.2. Impact on the supervising rate

The supervising rate is defined like follows:

Supervising rate = (Teachers' number / Students' number) x 100

According to the figure 05, we note that the supervising rate average during the last four years is about 22% for the ISTPM of Agadir, 12% for the ITPM of Safi and about 16% for the ITPM of Al Hoceima.

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The supervising rate in the three institutes is raised sufficiently (> 10%) to assure the students training activities. But, in order to ensure the continued education of the professionals simultaneously, a supplementary effort of teachers recruiting must be done.

The JICA project permitted the improvement of technical level of the institutes by the supply of equipment and didactical materials, and by standardization of curriculum and training manuals. These acquirements contributed to rising up the training quality and to increasing the students and instructors satisfaction level.

4.2.2. Impact on the laureates insertion

Since the end of the project in June 2001, the 3 institutes trained 597 executives in all sections. The distribution of the laureates graduated per section and per institute is illustrated by the figures 01, 02 and 03 presented in the annex I.

According to the figure 01, shows an increase of the students' registered number in the fishing industries section, whereas, in the two other sections, the evolution of the registered student's number is irregular during the last four years.

The following explanation could be advanced:

At the end of every academic year, "le conseil de perfectionnement" constituted by the directions members of the ISTPM and by representatives of the professionals, decide the students' number of the different sections of the institute according to the needs of the sector. It shows that the need in TS in fish processing is continuously increasing.

The increase of the industrials demand of TS on fish processing is due to:

- The highest technical level of ISTPMs laureates
- The satisfaction of the manufacturers
- The highest educational level within the ISTPM (Curriculum, pedagogical means, material means)

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The figure 02 shows constancy in the students' registered number in the ITPM of Safi. It is about 17 students for "patron de pêche" section and 18 students for OM₃ section.

the figure 03 shows also the constancy in the students' registered number in the ITPM of Al Hoceima. It is about 15 students for "patron de pêche" section and 18 students for OM₃ section.

The figures 06 and 07 illustrate the laureates' insertion rate per section and per institute (ISTPM Agadir and ITPM Safi) during these last three years. The average of the students' insertion rate is about 94,5%. This important rate is the consequence of the contributions of the cooperation project that contributed to the improvement of the technical level.

The figure 06 shows that the average of insertion rate of the LP and the LM sections in the ISTPM of Agadir is about 100%. It is a direct consequence of the governmental politics that aims the "marocanisation" of the over-sea fleet. Of this fact, every over-sea boat is obeyed by law to embark on board two laureates of the ISTPM, one in the deck and the other in the machine compartment.

On the same figure, we also note that the average of the TIP insertion rate is about 88,9%. This rate is considered very important and reflects the interests that have manufacturers of the sector in the laureates of this section.

We foresee that the demand in TIP will remain important because of the following reasons:

- The good reputation of the TIP laureates according to the manufacturers;
- The quality of the formation within the ISTPM (Curriculum, pedagogical means, material means)
- The supervising rate (executives' number / employees' number) in the industrial firms that remains very low. So, it was a great demand on fish processing technicians,
- The conviction of the Moroccan industrials following to the sensitization efforts done by the local authorities (veterinarians' direction, the public health, fraud repressions services), concerning the importance of the recruitment of the qualified and specialized staff.

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- The capacity of the laureates (TIP) to occupy any function within the fish processing firms, (quality chief, attending quality, laboratory responsible, laboratory technician, processing responsible, hygiene responsible, processing line chief, storage responsible, raw material purchasing responsible).

In the ITPM of Safi, the figure 07 shows that the average of insertion rate of the PP laureates is about 93% and the average of the insertion rate of the OM3 laureates is about 95%. Even if it is below to the governmental goal, this rate is judged very important and reflects the interest that carries the fishing professionals to the laureates (PP and OM3).

The insertion rate of 100% has not been reached because the governmental politics insertion is only concerned the future executive of the fishing over-sea fleet.

The interviews with professionals (fishing and processing), show a great improvement of level of the laureates inserted in private sector during last three years.

4.2.3. Impact on the other CQPMs

The contribution of the cooperation project was passed on to other CQPM not directly involved in the JICA project, by other means; CQPM of Tan-Tan has use practical training manuals and curriculum elaborated in ISTPM of Agadir. In order to transfer the acquired knowledge, other CQPMs like CQPM of Larache, Laayoune, Casablanca and Dakhla benefited from the knowledge of the Moroccan instructors of ISTPM of Agadir and those of ITPM of Safi. Furthermore, the students of these CQPMs participated in training activities organized by ISTPM of Agadir and ITPM of Safi.

4.2.4. Impact on the fishing sector development

The project permitted the improvement of technical training in the fishing sector by the transfer of the technological knowledge to the Moroccan instructors. This knowledge was passed on to the fisherman who improved the level in ISTPM of Agadir and the fish processing firms' workers in the ITPM of Safi. This situation has a favorable effect on the socio-economic situation of vulnerable groups like fishermen, workers and women.

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Also, the JICA projects contributed directly to increase the hygiene level and healthiness of the fisheries industry by introducing of the modern techniques of quality control. Such improvement is essentially due to the TIP laureates graduated in ISTPM of Agadir and inserted in theses firms.

4.2.5. Effect of external factors on the project goal realization

4.2.5.1. Contribution of the government policy

The Moroccan government has established a socio-economic development plan focusing on the promotion of the sea product processing. Moroccan government encourages the development of a new product for national and international markets.

The public institutions as the maritime chamber and fish industry direction continue to play a primordial role in the following areas:

- Awareness of the fishing sector operators for the importance of training and for roles that the three institutes play in the sectors' promotion.
- Awareness of the manufacturers to invest in research and development of new products using the means and services offered by the institutes.

Besides, the Moroccan government encourages the industrial to invest in the human resources via the financing and the repayment of the training actions and to benefit by the expertise of the consulting cabinets in the setting of the program of the Training Special Contracts "TSC".

This program aims to help the enterprises, the associations and the professional branches to identify and to action the continued education programs by financing all actions that aim to determine the needs in training of the recipients as well as the financing of the training actions, that are planned or not. (See detail in Annex VI).

For this fact, and follows the program of TSC, the fisheries training institutes can intervene deeply, because of their human and material means, in the improvement of the sectors of fishing and fish

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processing via the training programs in place. It could constitute, for the institutes, a supplementary financial source that will be very useful for the sustainability of the fall out of the JICA project.

4.2.5.2. Contributions of other cooperations

During and after JICA project, other cooperations also contributed to the improvement of training level in maritime fisheries. We can mention: The Portuguese project in 2000 (training to use fishing gear lake longline), the Canadian project (from 1998 to 2003) for training in responsible fishing, valorization of the capture, quality and marine environment and the Spanish project (in 2001) focusing on hygiene and healthiness on board of the boats.

The figure 08 shows, that between 2001 and 2004, 55 sessions of teachers training have been organized and financed by the ISTPM of Agadir and 08 others have been organized by the ISTPM of Agadir and financed by other cooperation.

It shows the positive and complementary role that plays the ISTPM and the other cooperation for reaching of the overall goal of the JICA project.

The figure 09 shows that during these last four years, 27 sessions of teachers training have been organized and financed by the ITPM of Safi and 26 sessions of teachers training have been organized by the ITPM of Safi and financed by other cooperations.

It shows also the positive and complementary role that plays the ISTPM and the other cooperation for reaching of the overall goal of the JICA project.

In the ITPM of Safi we observe an important presence of the other cooperation. It can be explained by the fact that this institute requires more effort for upgrading. Otherwise, the ISTPM of Agadir is very well equipped mainly because of the Moroccan-Japanese cooperation.

The figure 10 shows that during the last four years, only 04 sessions of teachers training has been organized by the ITPM Al Hoceima and has been financed by other cooperation. We observe that there is no teachers training session who has been financed by the ITPM of Al Hoceima it self.

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The low level of achievement of the overall goal by the ITPM of Al Hoceima is owed to the fact that it didn't benefit from the fall out of the project like the other institutes.

4.3. The evaluation of project in term of sustainability

4.3.1. Institutional sustainability

The institutional change of the 3 JICA project sites has been maintained and used as an enhancement of the technical level of the laureates and a total satisfaction of the whole staff of the 3 institutions. After the achievement of the project, the instructors and the staff of the administration use the equipment, facilities and infrastructures in an autonomous way.

Teachers who have received some practicum in Japan contributed directly or indirectly to the transfer of the technological knowledge at a national and continental level. They use their knowledge in their profession daily, these teachers animate the seminaries and workshops (third part project Japan African Morocco). This training program, that took 8 years (1998-2005), focused on the reinforcement of expertise and the retraining of the instructor and administrative staff of African countries. The study coincided with an individual third part training organized at ISTPM. An investigation with the seminaries showed a high satisfaction degree.

During this period, several consultancy and African executives training actions have been led.

The following charts present the regional groups seminaries, the individual practicum and the consultancy missions achieved.

The table 02 shows that between 1998 and 2004, six seminars for six groups were organized. 101 African executives belonging to 14 countries could also developed their knowledge in the following domains:

- Fisheries training institutes management
- Hygiene and quality control
- Sea products processing and valorization

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Table 02: Regional seminars held

Period	Title	Participants' number	Represented countries' number
From 09/11 to 04/12/1998	fisheries training Management of the fisheries training in 18/10 to Management of the fisheries training in attitutes and development of training		10
From 18/10 to 12/11/1999			10
From 23/10 to 17/11/2000	Realization and upgrading of the fisheries training institutes	15	09
From 07/01 to 01/02/2002	Hygiene and quality control of the sea products	21	14
From 13/01 to 14/02/2003	, 1 1		11
From 12/01 to Fish and sea products processing and valorization techniques (2nd part)		20	13

The table 03 shows that 12 individuals practicum have been organized to profit of African executives.

Thus, 37 executives belonging to 5 countries have been formed in the following domains:

- Maritime navigation
- Chips exploitation
- Sea products processing and valorization
- Marine machinery
- Maritime security
- Fishing gear
- Sanitary inspection
- Maritime conventions

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Table 03: Individual training's achieved

Period	Title	Participants' number	Represented countries
From 25/01 to 24/04/1999	Navigation and exploitation of the fishing ships	01	Guinea conakry
From 13/09 to 22/10/1999	Navigation and fishingProcession and valorizationNaval mechanics	07	Mauritania Ivory Coast Republic Senegal Tunisia
From 02/10 to 10/11/2000	Fishing industryNaval mechanics	02	Tunisia
From 11/11 to 20/12/2002	Machinery marines	01	Tunisia
From 16/02 to 19/03/2004	- Machinery marines - GMDSS	02 04	Guinea Mauritania Senegal
From 22/11 to 24/12/2004	Sanitary inspectionMaritime conventionsTechnologies of the fishing gear	07 07 06	Guinea Mauritania Senegal

The table 04 shows that during the years 2003 and 2004, five Moroccan experts from ISTPM of Agadir and ITPM of Safi have been sent in expertise mission, to Senegal, Mauritania and Guinea to contribute to development of the fisheries training institutes by the revision of training curriculums.

Table 04: Consignment of Moroccan experts in Africa

Period	Place	Experts number
From 19/03 to 18/04/2003	CNFTPM of Dakar	1
From 20/02 to 19/03/2004	Conakry	1
From 21/02 to 19/03/2004	Nouadhibou	2
From 15/04 to 15/05/2004	Conakry	1

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Three years after the final evaluation of the JICA project, the Moroccan part contributed with a financial effort to maintain and to reinforce the capacity of the institutes. Thus, Nine teachers were recruited in the fisheries institutes during the last four years and are distributed like presented in the figure 11 (three teachers in ISTPM of Agadir and six in the ITPM of Safi). No teachers have been recruited in the ITPM of Al Hoceima.

We can confirm that the Moroccan sides do an effort to maintain and to reinforce the training capacity of the institutes.

4.3.2. Financial sustainability

The fisheries training institutes concerned by the technical cooperation project are managed financially in an autonomous way. Every institute has an annual budget. Several categories of this budget are reserved for the didactic material acquirement and the construction of administrative and educational facilities.

These budgetary allowances allow the institutes to provide the financial sustainability of the technical cooperation project by their own means, especially purchasing of the equipment effort and construction of laboratories and the educational premises.

In ISTPM of Agadir, from 2000 to 2004 the average of the budgetary allowances planned was around 0.9 MAD (millions of Dirhams) and 0.7 MAD respectively for the acquirement of facilities and for the construction of infrastructures.

In addition to the budgets foreseen by the law of finance, the training institutes can generate some returns mainly through the auction of the ships-schools captures. These returns are poured in the state coffers and would permit to increase the budgets of the institutes thereafter.

Besides, a decree has been signed lately and foresees the generation of other returns by the institutes through:

- Use of the shops and laboratories by the professionals for the realization of tests,
- > Use of the facilities,

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- > Use of the training room and the seminaries center;
- > Organization of training sessions to the profit of the professionals;
- > Expertises and research
- ➤ Aid and technical advice

The financial sustainability of the project is also assured by financings by other cooperations projects, mainly the Portuguese project (2000), the Spanish project (2001) and the Canadian project (1998-2003).

4.3.3. Technological sustainability

The investigations on the JICA project sites revealed the sustainability in a good state of the facilities and infrastructures provided by Japanese government.

The figure 12 shows the data concerning the present state of the facilities and the infrastructures of the three institutes. These data have been collected by conducting a survey within the three institutes. The state of the infrastructures is a descriptive criterion. To convert it to measurable one we assign some marks for each state:

Mark 0: Bad state

Mark 1: State judged satisfactory

Mark 2: Very good state

The result of this survey is presented in the following chart:

Table 05: State of the infrastructures and facilities

	State of the infrastructures and facilities		
Infrastructure and facilities	Agadir	Safi	Al Hoceima
School residency	2	2	-
Seminaries center	2	2	-
Quality control laboratory	2	2	-
Processing laboratory 1	2	-	-
Processing laboratory 2	2	-	-
Machines' Shop	2	2	-
Machines' simulator	1	2	-
trial basin	2	2	-
ship school	2	1	1
Popularization car	-	2	2
Average mark	1,89	1,88	1,5

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As shown in the chart, the facilities and the infrastructures of the three institutes are generally in good state. Their marks are included within the tolerance area between the mark 01" satisfactory state" and the mark 02 " very good state".

The facilities and the infrastructures of the ISTPM of Agadir and the ITPM of Safi are globally in very good state, because their marks are successively about 1,89 and 1,88 in the scale of 2 (the mark 02 means very good state).

The facilities of the ITPM of Al Hoceima are in good state because the average mark is about 1,5 witch is included within the tolerance area.

However, the equipment hourly volume use shows that an effort must be granted for a better exploitation. In order to optimize their exploitation, the three institutes must open up on their environment and achieve a technological transfer to professionals.

The technology transferred by the Japanese experts through the seminaries and the practicum has been judged adapted to Moroccan conditions. Otherwise, the sea products valorization must take in account the specificities of the food habits of the Moroccan consumer.

Since the evaluation of the project, the curriculums elaborated have been reviewed one time while opting for the expertise approach.

On the other hand, the senior volunteers contributed directly to the technical level sustainability of apprentices, mainly concerning the maintenance of the navy machinery. Such action is to promote subsequently for the fish industry section.

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5. CONCLUSIONS

The Moroccan-Japanese cooperation project carried on fisheries training development was aimed to:

- To improve the fisheries training institutes level
- To improve the fishermen technical level
- To develop the sector of the inshore and artisanal fishing
- To develop the sea products processing and valorization

The project that concerned the institutes of Agadir, Safi and of Al Hoceima, has lasted 08 years between 1994 and 2001. Several studies have been done before to value, in different phases, the overall goal realizations. These proved to be conclusive.

The present survey intervenes to verify the impact and sustainability of the aforesaid project 03 years after its completion.

The survey of ex post assessment revealed a positive impact of the project on the fishery sector in Morocco. This impact appears multilevel:

- The positive impact on the training quality within the training institutes because of the fall-out of the project, as the increase of the welcome capacity, the acquirement of the educational facilities, the development and the standardization of the programs.
- The meaningful impact on the laureates expertise that explains itself by the importance of the insertion rate that is about 94,5%. This impact, result of the improvement of the training quality, contributed to the heightening of operating human technicality level in the sector.
- Transfers of the fall-out toward the others fisheries institutes not directly beneficiary of the project.
 This impact will result in the generalization of the acquirements of the project on the whole national maritime territory.
- The fishing sector development by the improvement of the technical level of the fishermen, and the workers due to the sessions of the training place organized by the beneficiary institutes of the project.

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- The sea product development and upgrading of the processing firms by the introduction of the good hygiene practices and the new techniques of quality control.
- The survey also revealed the existence of external factors that encourages the attack of the project global objective. Among these factors we may mention:
- The contribution of the Moroccan government by the forecasting of the budgetary allowances for the purchase of the material, the construction and the recruitment of formative.
- The contribution of the public institutions by the continuous awareness of the sector operators on the importance of the retraining and on the role that the institutes play at this level.
- The encouragement of the operators by the Moroccan government in return for the possibility to financing continuing training to the profits of their staffs.
- The contribution of other international cooperations in the teachers training, the didactic supports production and the concession of grants in materials and facilities.

The survey reveals also the existence of external factors that inhibits reached of the global objective of the project also. We mention:

- The prolonged biological rest periods influence seriously the fishing activity. The exploitation rate of the boat-schools is also influenced by this problem.
- The 3 JICA project sites have to promote its technological knowledge to professionals and industrials. This action is handicapped by the reticence of these operators.

The survey of ex-post evaluation to shows that the fall-out again of the project are maintained during the three years that follow the completion of project:

- The capacity of the teachers to assure by autonomous way the realization of practical work to the profits of the students

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- The development of expertise of teachers that ensure transfer of this knowledge is to be maintained by continuing education sessions.
- The opening of the beneficiary institutes of the project on the African continent as assuring in the setting of South-South training transfers it of the knowledge.
- The maintenance in good state of the equipment and infrastructures to the level of the three beneficiary institutes of project.

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6. **RECOMMENDATIONS**

The ex-post evaluation study shows that the JICA project contribution is not only the catalyst for the enhancement of fishing technical training level in Morocco, but permitted the development of many ways of opportunities. This JICA project is one of the most successful cooperation projects in Morocco for multiple reasons:

- The project has been realized in sites covering the whole coastal area in Morocco (Al Hoceima ITPM in the North, Safi ITPM in the Center and Agadir ISTPM in the South),
- The contribution pursuit by JICA after 3 years of the project end.
- The project overall goal corresponds to the real problems and constraints that knows the sector.
- The deep involvement cooperation of Moroccan government for the success of the project.
- The convergence of all taking parts of the project toward the overall of the overall goal.

However, for a better sustainability of the fall-out of the project, it is reasonable to schedule a future assistance in order to realize the following recommendations:

- At institutional level, a decentralization policy will be considered by the Moroccan government in fishing training sector. This policy allows the 3 institutes to perform the exploitation of the facilities and the infrastructures financed by any foreign cooperation. Also, The decentralization policy will facilitate the next institutional promotion of the ISTPM of Agadir to an autonomous higher academic institute.
- Assist the 3 institutes to convert into technological centers for industrial sector in order to increase their income.
- With the fish resource rarefaction, especially the stock of octopus, the fish sector shows actually a decrease in its exploitation speed. Others ways of development are to be studied such as introducing aquaculture techniques and the enhancement of a new sea products valorization.

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- A better use of the working hourly capacities of the material acquirements of the project is recommended. It will generate needy supplementary financial entries for a better durability of the advantages acquired by the project.
- The JICA outputs allowed ISTPM of Agadir and ITPMs of Safi and Al Hoceima to open up other ways of opportunities for many other partners. These opportunities are to be promoted depending on the needs of the area in which each institutes, operates. Among these opportunities, we can mention the introduction of cultural techniques of edible seeds. The Agadir new center financed by Japan Government (centre régional de valorisation des produits de la mer) should play a great role in the sea products valorization. The success of such valorization is largely dependant on foreign assistance.

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7. ANNEXS:

Annex I : Graphics

Annex II : Evaluation Grid

Annex III : Summary of evaluation report

Annex IV : Project Design Matrix (PDM)

Annex V : Photos

Annex VI : Government Program "Special Training Contracts"

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EX-POST EVALUATION REPORT

ANNEX I GRAPHICS

Figure 01: Students number evolution per branch in the ISTPM Agadir between 2000 and 2004

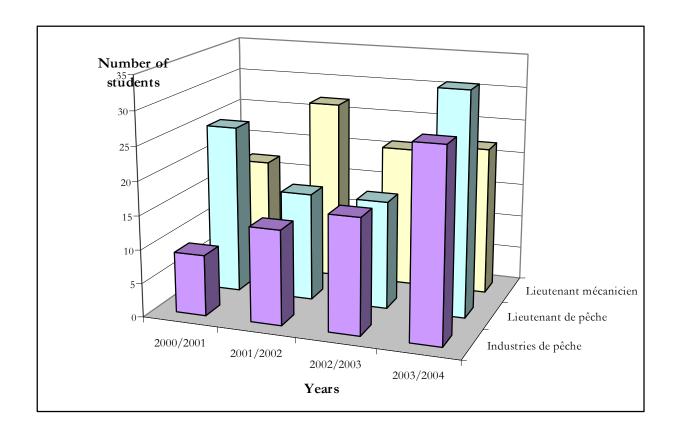


Figure 2 : Students number evolution per branch in the ITPM of Safi between 2000 and 2004

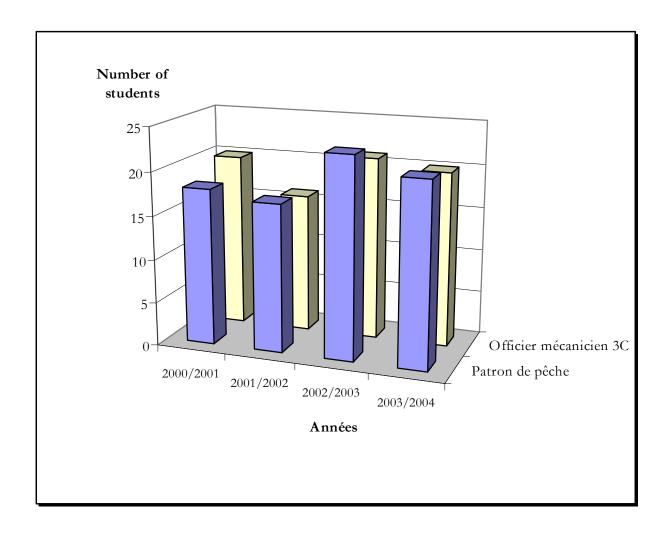


Figure 3 : Students number evolution per branch in the ITPM of Al hoceima between 2000 and 2004

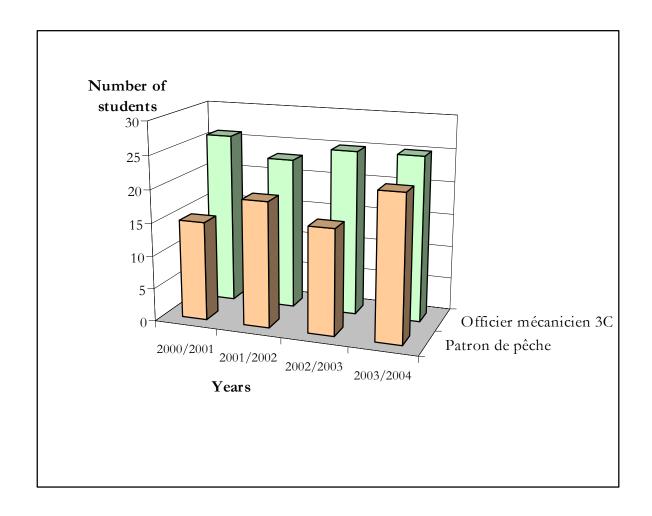


Figure 04: The welcome capacity in the three institutes

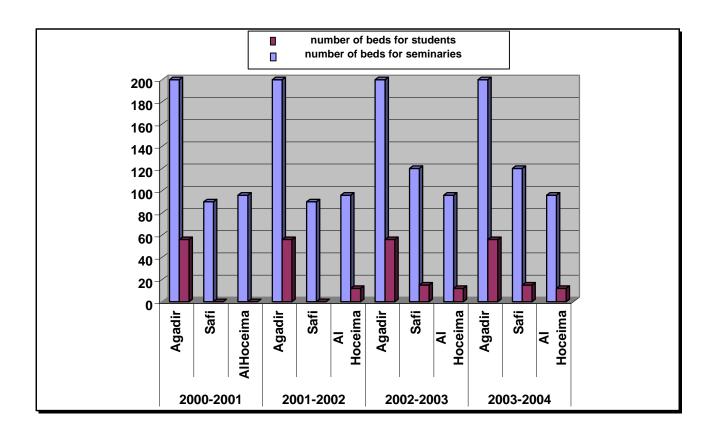


Figure 05: Presentation of the supervision rate in the three institutes

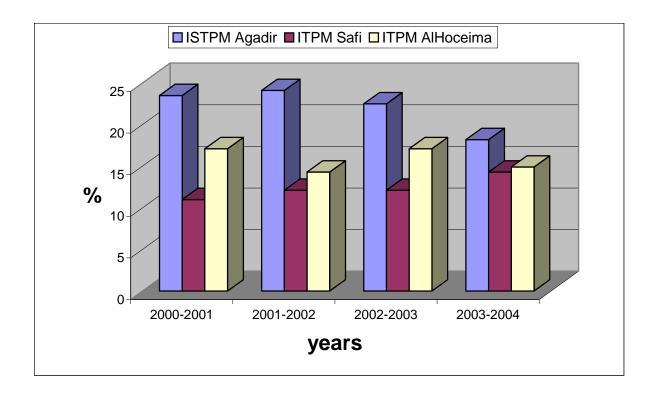


Figure 06: Laureates insertion rate in the ISTPM - Agadir

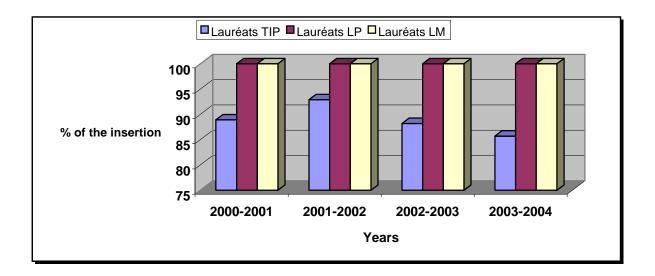


Figure 07: Laureates insertion rate in the ITPM of Safi

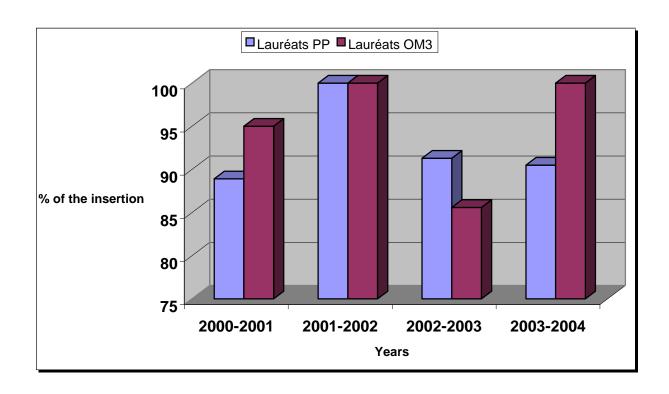


Figure 08: Number of teachers training session not financed by JICA organized in ISTPM - Agadir

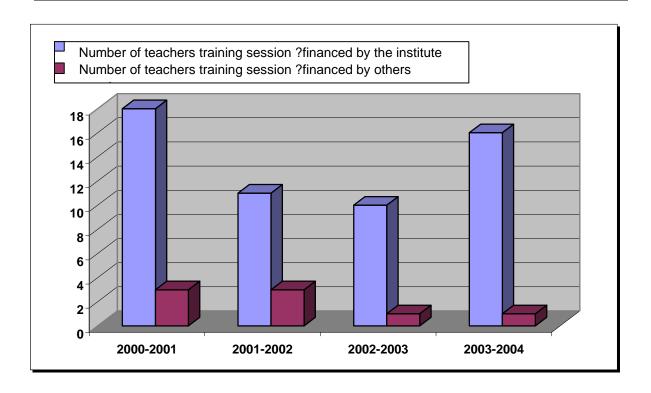


Figure 09: Number of teachers training session not financed by JICA organized in the ITPM of Safi

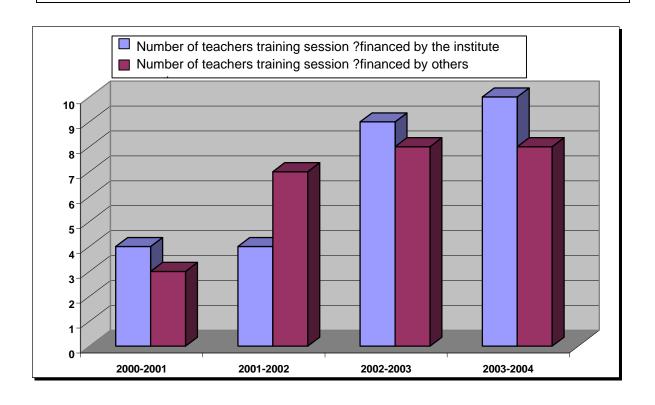


Figure 10: Number of teachers training session not financed by JICA organized in the ITPM of Al Hoceima

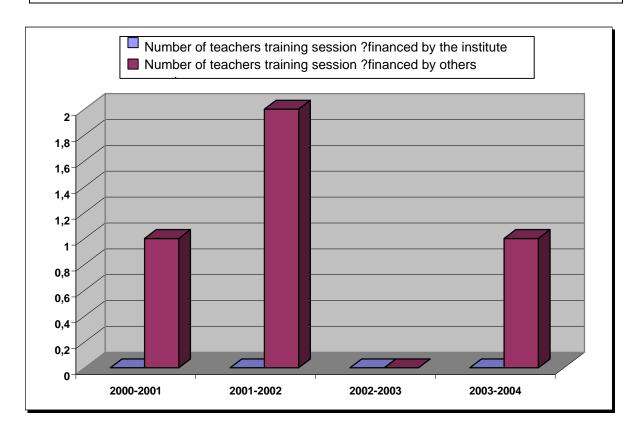


Figure 11: Teachers number recruited between 2001 and 2004

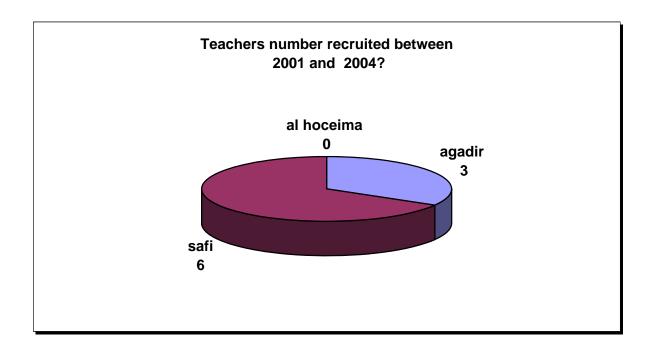
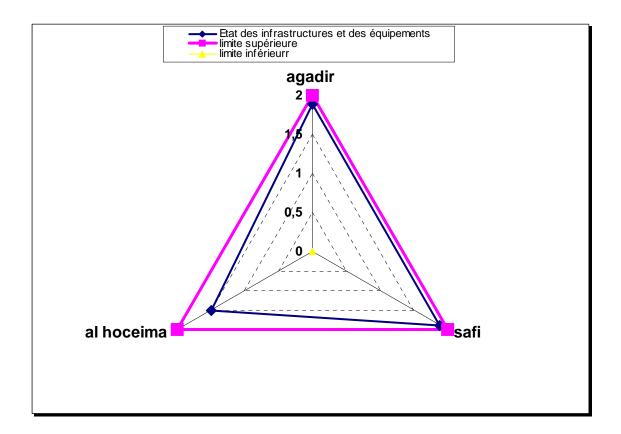


Figure 12: Infrastructures and equipments states



ANNEX II EVALUATION GRID



	Evaluation questions					Data collection
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods
IMPACT	1. What is the achievement level of the global objective since the final assessment	1.1. What is the insertion level of the laureates since the end of the project? 1.2. What is the judgment that carry the professionals on the laureates of the institutes? 1.3. Is there an improvement in the fishing practices that has been felt after the project? 1.4. Has an improvement been felt in the working of the fish processing firms? 1.5. Did others maritime institutes benefit from the outcomes of the project?	- Comparison of the information with the previous reports - Insertion rate - Satisfaction Level of the professionals - Improvement Degrees of the fishing sector ** - Using Level of the facilities and the didactic material by others CQPMs	- Number of laureates - Number of the laureates inserted - Opinion of the professionals on the laureates and on the sector - Didactic Material used by the other institutes - Number of demonstrations (courses, practical training) organized to the profit of the others CQPMs	- Director of the maritime chamber - Employers (firms, administration, offices) - Pedagogical director - Department chiefs	- Questionnaire survey - Interview - Documentary Survey (Report of activity, unfolding, Booklet)

 $[\]ensuremath{^{**}}$: in shore fishing, overseas fishing and artisanal fishing



	Evaluation ques	stions				Data collection
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods
IMPACT	2. Are there any positive or negative impacts resulting from the project?	2.1. What are the improvements observed in the working of the institutes and who are assigned to the project? 2.2. What are the positive contributions of the project? 2.3. What are the negative results assigned to the project?	 Analysis of the discussion results with the institutes and with the professionals Welcome capacity Framing rate (number of teachers / number of students) Standardization of the curriculums Negative impact (cf. points 4.1 and 4.2) 	 Number of beds for the residential course Number of beds for seminaries and training Number of teachers Number of students The curriculums 	Pedagogical directorGeneral secretaryDirectors	- Interview - Documentary survey Report of activity, unfolding, Booklet)
IMPACT	3- Did the project permit the institutional development of the institutes?	3.1. Has the project contribute to the institutional changes in the institutes? 3.2. Has the project permitted the development of the institutes human factor?	 Institutional Changes Satisfaction level of the administrative staff, teaching staff and students (training, material, laboratories) 	Status of the institutesOpinion of the public target	Pedagogical directorChief of departmentsStudents	 Questionnaire survey Documentary survey Report of activity, unfolding, Booklet)



	Evaluation questions					Data collection	
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods	
		3.3.Had the grants in material resources permitted the institutes development during the last three years?					
IMPACT	4. Are there any negative socio-economic impacts on the vulnerable groups?	4.1. Are there any negative impacts of the project on fishermen and workers?	- Description of the discussion results with the concerned parts	Opinion of the concerned partsOpinion of the teachersOpinion of the institutes directors	DirectorsTeachersFishermen and workers	 Interviews Documentary survey Report of activity, unfolding, Booklet) 	
IMPACT	5. Do an external factors contribute to the overall goal achievement?	5.1. Did the changes of the general government's politics contribute to the overall goal achievement? 5.2. Did others technical cooperations encourage the goal achievement?	 Investment level in the formation Strategic orientation of the government Level of interventions of the other cooperations 	 Budgetary Allowances Governmental Politics The number of teachers training actions The grants and helps 	 Directors General secretary Other projects Coordinators 	 Budget consulting Interviews Documentary survey Report of activity, unfolding, Booklet) 	



Evaluation of		ation questions				Data collection
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods
Sustainability	1. Do the project management maintain the positive outcomes?	 1.1. Does the Moroccan part pursue the effort of investment in the human and material factors? 1.2. Is there any evolution of the budgetary allowances dedicated to the development of the training? 1.3. Is there any evolution of the registered students during the last 5 years? 1.4. Is there any evolution of the teachers competence level? 1.5. Is there any plan of career evolution for the teachers? 	 Recruiting rate of the teachers Level of investment in material Evolution of categories of budget relatives to the training Evolution of the registrations Maintenance level of teacher training Career evolution 	 Budgetary allowances Number of the new recruits Quantity of bought material Number of the registered persons Number of teacher training actions Training Plan Opinion of the direction and the teaching staff 	- Directors - General secretary - Pedagogical director - Chiefs of department - Teachers	- Interview - Budget consulting - Observations



	Evaluation questions					Data collection
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods
Sustainability	2. How the project outcomes are maintained?	2.1. Do the institutes have revision methods of the curriculums? 2.2. What are the methods and the frequencies of the revisions? 2.3. What are the present states of the constructions? 2.4. What is the present state of the facilities acquired during the project? 2.5. What is the exploitation level of the laboratories and the pilot units? 2.6. what is the exploitation level of the training-vessel?	 Revision of the curriculums Revision frequency The approach chosen for revision The preservation degree of the constructions The maintenance level of the facilities The exploitation rate (laboratories, pilot units and training-vessel) 	- Former curriculums - present curriculum - Number of revisions - Method of revision - ate of the constructions - State of the facilities - Maintenance program - Using level	- Directors - General secretary - Courses directors - Chiefs of departments - Responsible of the laboratories shops and training-vessel	 Visits Interviews Documentary survey Report of activity, unfolding, Booklet)
Sustainability	3. What are the	3.1. What is the effect of	- Influence degree of the	- Opinions of the	- Chiefs of	- Interviews



	Evaluation ques	stions				Data collection
Criteria	Main Questions	Sub Questions	Achievement criteria - measures	Data needed	Data sources	methods
	factors that have contributed or inhibited the Sustainability of the project outcomes?	the scheduling of the project on its sustainability? 3.2. Was the transferred technology adapted? 3.3. Are there any external factors that influence the Sustainability of the outcomes of the project? 3.4. If yes, mention these factors	scheduling - Adaptation Level of the technology transferred - Influence degree of the others factors	persons responsible - General politics	project - Chiefs of the departments - Shops responsible - Laboratories and pilot units responsible	- Documentary survey Report of activity, unfolding, Booklet)
Sustainability	4. What is the present form of the cooperation and what are the perspectives?	4 .1. Are there any cooperation South-South who took birth after the end of the project? 4. 2. What are the nature and the reputation of these cooperation? 4.3. What is the role that can play the seniors volunteers to improve the technical level of the institutes?	 Presence of cooperation Number of activities Success degree of these activities Implication degree of the seniors volunteer in the training 	 Satisfaction of the users Opinion of the persons responsible and the teachers Opinion of the seniors volunteers 	 Directors Courses directors Chiefs of departments Seniors volunteer Users of the South-South cooperation 	 Interviews Documentary survey Report of activity, unfolding, Booklet)

ANNEX III PROJECT DESIGN MATRIX



P1 ANNEX.III

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
OVERAL GOAL To improve the technical level of the profession of the fishing and the processing of the sea product	 To increase the output of the fishing while preserving resources To improve level of valorization of the sea products 	Statistics of the ministry of the fisheries maritime	No marked change in the coastal environment and marine resources
PROJECT PURPOSE ■ To improve the technical training level in the sector of the fishing and fish processing	 The technological level of the infrastructures, the facilities and the training tools The level of internal expertise of the institute The quality of curriculum 	 Reports of the previous missions of the project curriculum 	 The affaires of offshore and coastal fishing don't slip down sharply. The affairs of fish processing industry don't slip down sharply.
OUTPUTS ■ The assessment of the impact of the project on the level of the technical training in the maritime fishing sector ■ The assessment of the sustainability of the project to value the degree of maintenance of them fallen again of the project by the concerned parts	 Results of survey of the impact of the project on the level of the technical training in the maritime fishing sector (c.f. INPUTS) Result of the survey of the sustainability of the project (c.f. INPUTS) 	 Survey by the institute of formation All document in relation with the project Photos 	■ There is no decrease in the number of CQPM students



P2 ANNEX.III

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
ACTIVITIES 1. Impact of the project on the working of the institutes	 Capacities of welcome of the institutes Rate of framing in different institutes Level of technicality of the institutes Curriculum and practical manuals Quality of the fisheries training Level of satisfaction of the recipients 		 The trained instructors will continue to work at the CQPM s The facilities and equipments of CQPMs will not be used for other purposes.
 2. Impact of the project on the level of the laureates of the establishments To take out again the impact of the project on the level of the laureates To solve the point of view of the professionals on the level of the laureates of the institutes 	 Number of laureates formed since 2001 Distribution of the laureates formed by branch and by institute Rate of insertion mean all branches and all disconcerted institute Rate of insertion of the laureates by branch and by institute Level of the laureates of point of view the of professionals 		 Precondition CQPMs participate to this project. Ministry of maritime fisheries fully support the project.



P3 ANNEX.III

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
3. Impact of the project on the other institutes not included in the project.	 Use of the curriculum and the practical manual by other CQPM Consignment of the Moroccan instructors of the ISTPM of Agadir and those of the ITPM of Safi in the other CQPM Number of messengers by the ISTPM of Agadir and by the ITPM of Safi Number of formation demonstrations organized within the ISTPM of Agadir and the ITPM of Safi 		
 4. Impact of the project on the sector of the maritime fisheries To discover the impact of the project on the working of the enterprises of the fishing To discover the impact of the project on the working of the project on the working of the processing firms 	 Level and quality of the fishers training Rate of framing in the sea product processing Level of hygiene and healthiness in the sea product processing firms Introduction of modern technics of the quality control 		



P4 ANNEX.III

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
 5. The impact of the external factors for the attack of the global goal of the project To reveal the contributions of the Moroccan governmental politics for the attack of the overall goal of the project To reveal the contributions of the other cooperations for the realization of the overall goal of the project 	 Quinquennial plan (2000-2004) of the Moroccan government encourage the development of new products Encouragement of the government all action of training and advice via lines of financing Role of the public institutions in: the sensitization of the operators to invest in the training the sensitization of the operators to invest in research and development of new products 		
 6. To value the project of cooperation in term of its institutional sustainability To enumerate the actions undertaken by the beneficiary institutes of the project, concerning investment in human and material resources, To enumerate the number of teacher recruted 	 Number of teacher recruited Autonomous management of the cooperation acquirements 		



P5 ANNEX.III

NARRATIVE SUMMARY OBJECTIVELY VERIFIABLE INDICATORS MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
 7. To value the project of cooperation in term of its financial sustainability To analyze the budgetary allowances dedicated to the maintenance of them fallen again of the project concerning development of the training To analyze the budgetary allowances in matter development of the internal expertises To show the role of the other cooperations in the maintenance of them fallen again of the project 	



P6 ANNEX.III

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OBSERVATION	IMPORTANT ASSUMPTIONS
 8. To value the project of cooperation in term of its technological sustainability To value the state of the facilities and infrastructures offered in the setting of the project 	 State of the acquirements of the project concerning construction and facilities Number of revision of curriculum Rate of exploitation of facilities acquired by the project 		
 To ascertain the improvement of the formation programs by revisions to the needs 	Level of adaptation of the technology transferred		
 To value the level of exploitation of facilities acquired due to the project 			
 To demonstrate the adaptation of the technology to transfer to the Moroccan conditions 			

Project Design Matrix (Logframe) of the Fisheries Technical Training Project

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF OVSERVATION	IMPORTANT
OVERALL GOAL The skills of Moroccan fishing boat crew members are improved. Moroccan coastal fishing and fish processing are promoted.	 Increase of fish production Increase of fish processed food Number of moroccan mariners Improvement of mariner's quality Modernization of fishing boat, gear, and method 	 Statistics of fish production Statistics of processed seafood Progress about the number of fishing boats Change of fishing method 	ASSUMPTIONS No marked change in the coastal environment and marine resources
Project Purpose Educational standards at the CQPMs are renewed and improved.	 Progress of the equipments and facilities of CQPMs Progress of the number of students and the situation of their employment 	 Data of shipowner's association Data of maritime companies Data of graduates from CQPMs 	 The affaires of offshore and coastal fishing don't slip down sharply. The affairs of fish processing industry don't slip down sharply.
 Outputs The educational materials for existent courses at CQPMs are improved and standardized. The fishing practice of CQPM is improved. Fish processing course is introduced. Capabilities of instructors at the CQPMs are improved. 	 State of use of the equipments and facilities Contents and frequencies of instructor's training Elaboration of teaching materials Fishery extension activities in the region 	 Documents related to the project Study at the CQPMs 	• There is no decrease in the number of CQPM students.
Activities 1-1.Elaborate the standard curriculum of CQPM (fishing and maritime machine) 1-2.Elaborate the teaching guidelines of CQPM (fishing and maritime machine) 2. Fostering the personnel who can train CQPM instructors in fishing practice on board 3-1. Elaborate the standard curriculum of fish	Inputs (1) Japanese side • 7 long term experts • 15 short term experts • 13 C/P training in Japan • Provision of equipments 156 millions yen • Local cost 49 million yen		The trained instructors will continue to work at the CQPM s The facilities and equipments of CQPMs will not be used for other purposes.
processing course 3-2. Elaborate the teaching guidelines of fish processing course 3-3. Fostering the personnel who can train CQPM instructors in fish processing 4. Retrain the CQPM instructors	 (2) Moroccan side 28 Counterpart land, buildings, and facilities local cost 33 million yen 		CQPMs participate to this project. Ministry of maritime fisheries fully support the project.

ANNEX IV EVALUATION SUMMARY REPORT

Project Summary

Evaluation conducted by: JICA Morocco Office

I. Outline of the Project					
Country: Morocco		Project title : Ex-post Evaluation Study on "The Fisheries Technical Training Project"			
Issue/Sector: Fisheries Technical Training Cooperation scheme:		Cooperation scheme: Technical cooperation			
Section in charge :		Total cost :yen			
Period of Cooperation	June 1994 to June 2001	Partner Country's Related Organization(s): Mini Agriculture, Rural Development, and Ma Fisheries Supporting Organization in Japan:	·		
Related Cooperation	none				

1 Background of the Project

JICA technical cooperation in Fisheries Training has started in 1987 at the "Institut de Technologie des Pêches Maritimes d'Agadir" (ITPM). Following the Moroccan government request, JICA implemented "The Fisheries Technical Training Project" from June 1994 to June 2001 with the aim of improving the educational program at the ITPM of Agadir and the Centre de Qualification Professionnelle Maritimes (CQPMs) of Safi and that of Al Hoceima. The ITPM of Agadir was chosen as the pilot project—site because there were more instructors and facilities assisted by the former JICA project. Three years after the end of the project, an ex-post evaluation study was decided to be carried-out.

2 Project Overview

The JICA Fisheries Technical Training Project carried out the 4 following activities:

- The improvement of CQPMs and ITPM of Agadir's curriculums,
- The improvement of fishing practices on board,
- The introduction of fish processing,
- Brush-up training of the CQPMs and ITPM instructors.

(1) Overall Goal

The overall goal was to promote coastal fisheries as well as fish processing industry in the Kingdom of Morocco by enhancing capability and improving skills of fishing boat crewmembers.

(2) Project Purpose

The aim of the project is to strengthen the education level of ITPM of Agadir and the CQPM of Safi and Al Hoceima. In ordert to

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acheive this goal, JICA standardized the CQPM's educational program and trained Moroccan instructors. This led upgraded Agadir ITPM to the "Institut Spécialisé des Pêches Maritimes" (ISTPM), and CQPMs to ITPMs. The project reinforced also the equipments and facilities of both kinds of institutions.

(3)	O	ut	pu	ts

- 1. The impact of the project on the institutes functioning
- 2. The impact of the project on the students technical level and their skills
- 3. The impact on the institutes not directly involved in the project
- 4. The impact of the project on Moroccan fishing sector
- 5. The impact of the external factors on the project overall goal
- 6. The post evaluation of institutional sustainability
- 7. The post evaluation of financial sustainability
- 8. The post evaluation of technological sustainability

(4) Inputs			
Japanese side :			
Long-term Expert	07 Equipment	156 millions Yen	
Short-term Expert	15 Local cost	49 millions Yen	
Trainees received	13 Others	Yen	
Moroccan side :			
Counterpart _	28 Equipment	NA local currence	ey (<u>NA</u> Yen)
Land and Facilities Y	<u>Yes</u> local currency (<u>NA</u> Ye	en) Local Cost Yes	local currency (33 millions Yen)
Others N	A local currency (NA Yes	n)	
II. Evaluation Team			
Members of Evaluation	Hamid El Bennoury- Consult	ant	
Team	El Houssine Boufous-Consult	ant	
Period of evaluation	29 th November 2004-21 Jan	nuary 2005	Type of Evaluation: Ex-post Evaluation
III. Results of Evaluation			

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1 Summary of Evaluation Results

(1) Impact

The project, assisted by the repercussions of the previous projects, permitted a meaningful increase of the welcome capacities of welcome of the institutes concerned by the project, via the construction of school residency and two seminaries centers (see Table above). The JICA project permitted also the improvement of technical level of the institutes by supplying the facilities and didactic materials and standardization of training programs. The supervising rate in the three institutes is raised sufficiently to assure the students training activities. The average insertion rate of the laureates is about 94,5% (all section). This important rate is the consequence of the contributions of the cooperation project that contributed to the improvement of the technical level. The professionals (fishing and processing) show a great improvement of level of the laureates inserted in private sector during last three years. The fall-out of the project influenced positively also the other CQPMs non-enrolled in the project. The Manuals and training programs were sent to these CQPMs to be used. The project also improved the training technical level and the transfer of the technological knowledge within the Moroccan fishing sector. Also, the JICA projects contributed directly to increase the hygiene level and healthiness of the fisheries industry by introducing of the modern techniques of quality control. The table above shows the evolution of measurable indicators used in the ex post evaluation study.

Measurable criteria	ISTPM Agadir		ITPM Safi		ITPM Al Hoceima	
Measurable Criteria	2000	2004	2000	2004	2000	2004
Number of beds for students	200	200	90	90	96	96
Number of beds seminaries	56	56	00	15	00	12
Supervising Rate (Number of teachers / Number of students) x100	23,5%	18,2%	11%	14,3%	17,1%	14,9%
Number of laureates formed	51	83	38	41	41	47
Rate insertion average	96,3%		93,9%		-	
Number of training actions for teachers auto-financed by the 3 institutes between 2000 and 2004	55		27		00	
Number training actions for teachers financed by the others foreign cooperation between 2000 and 2004	08		26		04	
Number of teachers recruited between 2000 and 2004	03		06		00	
The state of the infrastructures 0: bad; 1: middle; 2: good	1,89		1,88		1,5	

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(2) Sustainability

The institutional change of the 3 JICA project sites has been maintained and induced an improvement of technical level of the laureates and favored the satisfaction of the institutes staff. The constructions, equipments and facilities have been managed by the formed autonomous teachers and the administration staffs. The teachers, who received the technological knowledge in Japan, transferred it well to Moroccan and African trainers. An investigation showed a higher level satisfaction of these trainers. Three years after the end of the JICA project, the Moroccan side made an effort to maintain and to reinforce the training capacity of the 3 institutes. Thus, Nine teachers were recruited in the fisheries institutes during the last four years (three teachers in ISTPM of Agadir and six in the ITPM of Safi).

Concerning the financial sustainability, although the problem of the prolonged biologic rest affected the sector of Moroccan fishing, the Moroccan Five Year Plan 2000-2004 fixed the budgetary allowances focusing on the autonomous management of the 3 JICA sites. In addition to the budgets foreseen by the law of finance, the training institutes can generate some returns mainly through the auction of the ships-schools captures. These returns are poured in the state coffers and would permit to increase the budgets of the institutes. The financial sustainability of the project is also assured by financings by other cooperations projects such as the Canadian project "Forquapêche" (1998-2003) focusing on processing technology of and quality management, and the Spanish project in 2001 carried on hygiene management.

Concerning the technological sustainability, our investigations revealed the maintaining in a good state of equipments, facilities and infrastructures provided by JICA project. However, the rate of hourly use per year shows that an effort must be granted for a better exploitation of these equipments and infrastructures. In order to optimize their exploitation, the three institutes must achieve a technological transfer to private enterprises. The technology transferred by the japans experts have been judged adapted to the Moroccan conditions. Since the end of the project, the training curriculums have been reviewed one time while opting for an expertise approach. On the other hand, the senior volunteers contributed directly to update of the teachers and students technical level mainly in the area of the maintenance of the navy machinery. Such action should be promote subsequently for the fish industry department in the future.

2. Factors that have promoted project

(1) Impact

- ✓ The government policy promoted the social evolution of fishermen through a training approach
- ✓ Government budgetary allowance for material and human resources.
- ✓ The encouragement of the operators by the Moroccan government in return for the possibility to financing continuing training to the profits of their staffs.

(2) Sustainability

✓ Role of others external cooperation such as the Canadian fishing "Forquapêche" project (1998-2003) that allowed the

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teachers and the purchase of equipment and facilities.

✓ Interest of African countries: this interest permitted the exchange of Moroccan and Japanese expertise with Africans through training actions.

3. Factors that have inhibited project

(1) Impact

- ✓ *The rarefaction of marine resources*: the prolonged biological rest periods influence seriously the fishing activity. The rate exploitation of the ship-schools is also influenced by this problem.
- ✓ Reticence of private sector and manufacturers: the 3 JICA project institutes have to promote their technological knowledge to professionals and manufacturers. This action is handicapped by the reticence of these operators.

(2) Sustainability

Financial Resources: the financial sustainability is necessary to perform the materials and infrastructures exploitation.

4. Conclusions

Since the final evaluation step, the fall-outs produced by JICA project were revealed that the Moroccan fishing sector are reasonably sustainable. As a result, various goals such as technical training improvement of the 3 JICA project sites and the development of some fish processing transformation mainly smoked and pickled fish. These goals have been reached and maintained. In spite of the financial difficulties, the contributions of the two sides (Moroccan and Japanese) have enhanced human and material capacities of ISTPM of Agadir and ITPMs of Safi and Al Hoceima.

Also, our ex-post evaluation study revealed that the Japanese technological knowledge has not only been adapted and maintained but also transferred to Moroccan and African trainers. Thus, JICA project allowed ISTPM of Agadir to open up others ways of opportunities. Development of these opportunities with private sector is to be promoted. The success of such opportunities is largely dependant on foreign assistance.

5. Recommendations

The ex post evaluation study shows that the JICA project contribution is not only a catalyst for enhancement of fishing technical training level in Morocco, but permitted the development of many opportunities. This project is one of the most successful cooperation projects in Morocco. However, for a better sustainability of the fall-out of the project, it is reasonable to schedule a future assistance in order to realize the following recommendations:

At institutional level, a decentralization policy will be considered by the Moroccan government in fishing training sector. This policy allows the 3 institutes to perform the exploitation of the facilities and the infrastructures financed by other foreign

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cooperation. Also, The decentralization policy will facilitate the next institutional promotion of ISTPM of Agadir to an autonomous highest academic institute.

Assist the 3 institutes to convert into technological centers for industrial sector in order to increase their income.

With the fish resource rarefaction, especially the stock of octopus, Moroccan fishing sector shows actually a decrease in its exploitation speed. Others development ways will be studied like introducing aquaculture techniques and enhancement of new sea products valorization.

6. Lessons Learned

Considering the out-come results, the project can be considered a successful example to be followed for the sustainability of the sector.

However, in order to adapt the technology transfer, it will be hopeful to take into consideration the socio-cultural and economic specification of the country. It is notably about the sea products valorization that must take in account the specificities of the food habits of the Moroccan consumer.

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ANNEX V PHOTOS

Photos taked in ISTPM Agadir: dec. 20th. 2004



Seminary center



Negative chambers of the pilot unit 1



Some materials of the pilot unit 2

Photos taked in ISTPM Agadir: dec. 20th. 2004



African trainees still preparing the final training report



Smoking-room of the pilot unit 2



Control laboratory

Photos taked in ITPM Al Hoceima: dec. 20th. 2004



Ship-school



Mobil unit of vulgarization

ANNEX VI CSF

Government Program "Special Training Contracts"

ANNEX VI

Encouragement of the continuing training by the government via the CSF

1. Application fields of the CSF

The Moroccan government, via the ministry of the professional training put a program titled "Special Contracts of Formation" "hereinafter referred as CSF" that aim to help the enterprises, the associations and the professionals to identify in place and to put in work of the continuing training schedules while financing the following actions:

- training engineering actions;
- the planned training actions;
- non planned training actions;
- the actions of functional literacy;
- the sectional education programs and the engineering studies.

• training engineering actions

The training engineering actions are defined like being the actions of diagnosis of the needs in training and development of the training plans that answer needs. They can cover the certification of expertises or the balances of expertises necessary to the development of a plan of formation:

They benefit notably at the enterprises having achieved a survey financed by the Interprofessional Groupings of help to the Council (hereinafter referred as GIAC), recognized by the Ministry of the professional education.

These actions of engineering can be achieved either by the enterprise though it has the necessary appraisal, either with the aid of specialized organisms of education in the domain.

• The planned training actions

These actions correspond to cycles of formation, seminaries and/or technical training that enrol in a yearly training plan according to the engineering demarche.

These training actions can be achieved either in the enterprise by internal or external expertises, either by public or private training organisms.

The actions carrying on the basic and/or strategic professions of the enterprise must constitute at least 50% of the training plan.

• non planned training actions

It is about realized training actions out of the training plan.

• the actions of functional literacy

These realized training actions to the profit of the salaried employees in the setting of the upgrading of human resources of the enterprise, can enrol or no in a training plan.

• the sectional education programs and the engineering studies

The sectional studies of engineering aim the identification of the training needs for a special activity sector in the goal to elaborate a training schedule to the profit of the enterprises of this sector.

2. Conditions and financing modes

All enterprise submitted to the Tax of professional training (referred as TFP) and in regular situation with the CNSS can benefit of a financing of the training actions presented in the previous paragraphs.

3. Resources of the CSF

They are constituted by:

- ➤ of the budget determined by the administration Council of the OFPPT in accordance with arrangements of the decree n° 2-73-633 of May 22, 1974 carrying creation of the TFP, as modified and completed;
- > of the carried budget that has not either been hired and justified by the enterprises;
- ➤ of subsidies and grants poured by the state, the establishments and public collectivises or throughout other institution and/or national or foreign organization;
- > of the grants and bequests made in the setting of the law;
- > of product of the investments of the available resources.

ANNEXE VI

Encouragement de la formation continue par le gouvernement via les CSF

« Extrait du manuel des procédures des CSF $\,$ - janvier 2002 - $\,$ Département de la formation professionnelle $\,$ ministère chargé de la formation professionnelle $\,$ »

1. Champs d'application des CSF

Le gouvernement marocain, et précisément le ministère chargé de la formation professionnelle à mis en place un programme intitulé « Contrats Spéciaux de Formation » « CSF » qui vise à aider les entreprises, les associations et les branches professionnelles à identifier et à mettre en œuvre des programmes de formation continue en finançant des actions qui rentrent dans l'une des catégories suivantes

- les actions d'ingénierie de formation ;
- les actions de formation planifiées ;
- les actions de formation non planifiées ;
- les actions d'alphabétisation fonctionnelle;
- les programmes sectoriels de formation et les études d'ingénierie y afférentes.

Les actions d'ingénierie de formation

Les actions d'ingénierie de formation sont définies comme étant les actions de diagnostic des besoins en formation et d'élaboration des plans de formation, qui répondent à des besoins en compétences des entreprises. Elles peuvent également couvrir la certification de compétences ou les bilans de compétences lorsque ces derniers sont nécessaires à l'élaboration d'un plan de formation ;

Elles bénéficient notamment aux entreprises ayant réalisé une étude financée par les Groupements Interprofessionnels d'Aide au Conseil (GIAC), reconnus par le Ministère Chargé de la Formation Professionnelle.

Ces actions d'ingénierie peuvent être réalisées soit par l'entreprise elle même si elle dispose de l'expertise nécessaire, soit avec l'assistance de cabinets-conseil ou d'organismes de formation spécialisés dans le domaine.

Les actions de formation planifiées

Ces actions correspondent à des cycles de formation, séminaires et/ou stages techniques qui s'inscrivent dans un plan de formation annuel selon une démarche d'ingénierie telle que définie au paragraphe 2.1. précédent.

Ces actions de formation peuvent être réalisées soit en intra-entreprise par la mobilisation d'une expertise interne ou externe, soit par des organismes de formation publics ou privés.

Les actions portant sur les métiers de base et/ou stratégiques de l'entreprise doivent constituer au moins 50 % du plan de formation.

Les actions de formation non-planifiées

Il s'agit d'actions de formation réalisées hors du cadre d'un plan de formation.

Les actions d'Alphabétisation fonctionnelle

Ces actions de formation réalisées au profit des salariés dans le cadre de la mise à niveau du personnel de l'entreprise, peuvent s'inscrire ou non dans un plan de formation.

les études sectorielles d'ingénierie et les programmes de formation sectoriels

Les études sectorielles d'ingénierie visent l'identification des besoins en formation au niveau d'un secteur ou une branche d'activité dans le but d'élaborer un programme de formation au profit des entreprises du secteur ou de la branche d'activité.

2. Conditions et modalités de financement

Toute entreprise assujettie à la Taxe de Formation Professionnel (TFP) et en situation régulière vis à vis de la CNSS au titre de cette taxe peut bénéficier d'un financement pour des actions correspondant aux champs d'application définis aux paragraphes précédents.

3. Les ressources des CSF

Elles sont constituées:

- du budget déterminé par le Conseil d'Administration de l'OFPPT conformément aux dispositions du décret n° 2-73-633 du 22 mai 1974 portant création de la TFP, tel que modifié et complété;
- du budget reporté qui n'a pas été engagé ou justifié par les entreprises ;
- de subventions, dons et libéralités versés par l'Etat, les établissements et collectivités publiques ou par tout autre institution et/ou organisation nationale ou étrangère;
- des dons et legs qui pourront être faits dans le cadre de la législation en vigueur ;
- de produit des placements des ressources disponibles.