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**TERMINAL EVALUATION  
ON THE THIRD COUNTRY TRAINING  
PROGRAM  
IN THE FIELD OF POTABLE WATER  
AND SANITATION**

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**CARRIED OUT BY JICA AND ONEP**

**2001 – 2004**

**By Khalid BEN OSMANE**

*Ph.D. Economics*

*Human Resources Management  
And Organization Consultant*

Khalid\_benosmane@menara.ma

**Rabat, Morocco**

**29 November 2004 – 21 January 2005**

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## Summary

Evaluation conducted by : JICA Overseas Office

<b>I. Outline of the Project</b>		
<b>Country :</b> The Kingdom of Morocco		<b>Project title:</b> Third Country Training Program in the Field of Potable Water and Sanitation
<b>Issue/Sector :</b> Water Resource Development		<b>Cooperation scheme :</b> Third Country Training Program
<b>Division in charge :</b> JICA First Water Resources and Disaster Management Team, 3 <sup>rd</sup> Group, Global Environment Department		Total cost : 23 million yen Cost per participant: 400 thousand yen Share of Japan's Contribution: 78.5%
<b>Period of Cooperation</b>	(R/D): December 26, 2000 JFY 2001 - JFY 2005	<b>Partner Country's Implementing Organization :</b> the National Office of Potable Water (ONEP) Supporting Organization in Japan : Japan International Corporation of Welfare Services (JICWELS)
<b>Related Cooperation</b>	Grant Aid Project «Le Projet d'Alimentation en Eau Potable de la Région du Pré Rif»	

**1. Background of the Project**

Abundance and scarcity of water in African countries should be mastered by means of vigilance and relevant knowledge. Thus, these countries are at present in front of a double challenge. They have both to master the availability and distribution of potable water and to maintain its quality. There is, therefore, a strong demand on behalf of the African countries to improve the management of their water. Within the framework of the Moroccan-Japanese cooperation which aims at helping developing countries to benefit from the Moroccan experience and know-how in the field of potable water and sanitation, the Government of Japan and the Government of the Kingdom of Morocco proceeded to the implementation of a tripartite technical cooperation project for the benefit of certain French-speaking African countries.

This cooperation project consists in the realization of 5 training courses scheduled over a period of 5 years going from 2001 to 2005. Every training course takes place over a period of one month and involves both a two-week theoretical course and a similar two-week practical training.

The realization of this cooperation project was entrusted to the National Office of Drinking Water (ONEP) of the Kingdom of Morocco and to the Japanese International Cooperation Agency (JICA), executive governmental organization of technical cooperation within the framework of the Japanese Public Aid to Development.

**2. Project Overview**

The project concerns a continuation of training courses scheduled over five years, at the rate of a one-month session a year. Up to the present time, 4 sessions have been successively organized, namely, June 2001, June 2002, June 2003 and June 2004. Every session involved 14 French-speaking African trainees who work in the sector of potable water and sanitation. On the whole, today, 58 persons were trained. These sessions handled such subjects as "potable water production and distribution management," "potable water quality Control and follow-up", "management of water resources destined to potable water supply" and "liquid sanitation."

**(1) Overall Goal**

To improve the knowledge and skills in the field of potable water and sanitation of African countries.

**(2) Project Purpose**

The purpose of this cooperation program is to contribute to the intensification of developing countries capacities in realizing and managing potable water and sanitation installations (planning, research, realizations, treatment, production, distribution, management, quality control.)

The purpose of the courses is to provide the participants from African countries with an opportunity to improve their knowledge and skills in the field of potable water and sanitation.

**(3) Outputs**

- To be able to plan and manage potable water;
- To improve their knowledge and skills to be able to insure an effective management of potable water production and distribution systems;
- To develop relevant skills to manage sanitation facilities effectively;
- To have the ability to insure water quality monitoring;
- To transfer the knowledge they acquired during the training to other trainees in their own countries;
- To research the new regional cooperation in this area.

**(4) Inputs (2001-2004)****Japanese side :**

- Local currency : 1 828 000.00 DH (23 million Yen)  
(Air fare, Perdiem, Training cost etc.)
- Dispatch of short term experts 2001, 2002, 2003, 2004

**Moroccan's Side :**

- Local currency : 578.800.00 DH (7.3 million Yen)  
(Training facilities, Instructors etc.)

**Participating Countries:**

Benin, Burkina Faso, Burundi, Cameroon, Côte d'Ivoire, Guinea-Conakry, Madagascar, Mali, Mauritania, Niger, Republic of Central Africa, Senegal, Thad, Togo.



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II. Evaluation Team		
Members of Evaluation Team	JICA MOROCCO OFFICE (entrusted to Mr. Khalid Ben Osmane, PhD Economics, Human Resources Management and Organization Consultant)	
Period of evaluation	29th November 2004 to 21st January 2005.	Type of Evaluation : Terminal Evaluation
III. Results of Evaluation		
1. Summary of Evaluation Results		
(1) Relevance		
<p>The project objectives seem to meet the beneficiaries' needs. Indeed, the subjects which are fixed by the agreement and taught during the Four sessions fit into the preoccupations and the policy of the guest countries: the mastery of potable water and sanitation management. This fact proves the project relevance and viability.</p> <p>Both the evaluations realized in the term of the sessions and the final evaluation confirm the importance of the debated issues. The total satisfaction level turned around 88.5 %. After returning home, many participants have put into practice their acquired knowledge in ONEP, and thus, their assessment has been better appreciated by their organization. Overall, the evaluation also confirms the candidate choices relevance and coherence with objectives, as regards the elements of the program.</p> <p>The participants were familiarized with the utilizable techniques within their professional context.</p> <p>The utilizable means as well as the deployed methods are considered relevant by the participants; however, they estimate that more time should be reserved for practical applications.</p>		
(2) Effectiveness		
<p>The sessions' results, which constitute the project considerable output, underline the achievement of the objectives because most participants confirm the effect they felt as regard their level of performance and their technical capacity.</p> <p>The quality of the consultants who were allocated the training was in most cases highly considered and their contribution was appreciated by the participants.</p> <p>The training processes (Alternation between training approaches and methods) were fitted out so as to diversify the teaching/learning process.</p> <p>Material organization, the sessions period, the instructors' utilizable methods and the practical applications were considered effective by the participants. This finding was confirmed by field observation.</p>		
(3) Efficiency		
<p>Most sessions were executed within the limits of the fixed budgets. In many cases, expenditure was lower than the initial budget.</p> <p>The part reserved to theoretical developments was appreciated by the participants; however, they would prefer to extend the time assigned to practical applications. Group's heterogeneity does not allow to go deeper with the themes. On the other hand, the means assigned to the project (human, material and financial resources) were used in an efficient way. There is no unfavorable opinion on this question.</p> <p>The organization of sessions took place in good conditions. The participants estimate that the human and material resources allocated to the execution of the training were quantitatively sufficient and qualitatively relevant. The multiplicity of the instructors was considered as enriching and the administrative supervision appreciable.</p>		
(4) Impact		
<p>According to the questionnaire, all the interrogated participants supported that training had an important impact on their qualification because it raised their technical level and increased their capacity of argumentation, and they were able to use the training output in different manners once back to their own countries. For example, certain participants have been involved in dealing with the different files related to potable water, while others have implemented water quality analytical techniques within their laboratories.</p> <p>Consequently, their organizations benefited from these trainings. Indeed, 75 % of the participants estimate that their organizations, in a way or another, took advantage of their trainings. Certain participants even explained how the technical level of their work place improved thanks to their experience in ONEP.</p> <p>Positive impacts seem also to be due to the consequences engendered by the implementation of the project. Indeed, the reputation of the CFTE(ONEP training center) has positioned itself among the specialized training centers in Morocco.</p> <p>Furthermore, the instructors through their performance feel a positive impact: the preparation of classes and the didactic material has in a way, forced them to do more research and to improve their lectures.</p>		
(5) Sustainability		
<p>The ONEP budget share was increasing from one session to another. Moreover, through the specific objectives, the project has strengthened the development of training expertise in specified fields. To make the project sustainable, ONEP decided to introduce three types of actions:</p> <ul style="list-style-type: none"> <li>- Immediate: renovation and reorganization of the classrooms and the guests' accommodation, as well as the hotel that is reserved for outside guests and the premises allocated to the trainees of the organization itself.</li> <li>- In the short term: a project for the development of the Training Centre is being implemented having for main objective its promotion as a centre enjoying the administrative and financial autonomy.</li> <li>- In the medium term: the development project foresees the transformation of the CFTE to an International Centre for Water Professions (CIME) and the extension of accommodation and training premises.</li> </ul> <p>Overall, impact is certain because the CFTE has started to reach the phase of maturity. Working experience with cooperation organisations seems to have consolidated the CFTE in the training strategy and has incited instructors by strengthening their assurance and their confidence in their competence and in the possibilities of improving their knowledge.</p> <p>Judging from the above-mentioned facts, sustainability is confirmed.</p>		

### III. Results of Evaluation (Continuation)

#### 2. Factors promoting sustainability and impact

##### (a) Factors concerning Planning

The theory and practice combination allowed the training content diversification. The participants are satisfied by the variety of subjects and the relevant experiments which they attended.

##### (b) Factors concerning the Implementation Process

- The quality of the instructors, engineers and technicians, who have not been trained as teachers, was successful in rousing the participants' interest and to transmit their knowledge;
- The financial means of ONEP favors the capacity of equipment in order to meet the expressed needs during the teaching sessions;
- The organization system and the capacity of the CFTE to manage two or several projects at the same time and its ability to mobilize a great number of staff members although they belong to various departments.

#### 3. Factors inhibiting sustainability and impact

##### (a) Factors concerning Planning

Group's heterogeneity and the length of each teaching session do not allow the instructors to cover all the subjects in depth. There is neither time for additional applications (laboratory analyses, tools manipulation, field visits) nor time for the implementation of several theoretical aspects.

##### (b) Factors concerning the Implementation Process

- Insufficient accommodation premises as it is impossible to carry out several sessions at the same time;
- There are some factors that bureaucratic decision making process delays smooth coordination of educational and administrative procedures;
- The low rate remuneration granted to the part-time instructors does not incite them to improve their pedagogical research.

#### 4. Conclusions

Taking into account the entire project, execution and the obtained results can be considered as positive and in a general way can be viewed as being sustainable. The relevance of this type of project and the debated issues has for corollary the efficient achievement of most objectives and the effective management of the facilities and resources assigned to the project.

Quantitatively, results are significant. More than about fifty participants have started to develop similar techniques which improve coordination between the concerned organizations and share a common consciousness of responsibility towards the mastery of water and environment management.

Besides, the exchange framework created by such tripartite projects, constitutes a recognized and manifested opportunity of improving skills by the different members, because it allows each one to meet his/her own challenges and to test his/her capacities.

Participating African countries still have the strong need to manage and improve the water quality, it is desirable to continue the cooperation for this sector.

#### 5. Recommendations

##### (a) Recommendations concerning Planning

- To increase the number of sessions or extend the training period in order to allow the instructors to cover all the subjects in depth.
- To allow enough time for additional applications (laboratory analyses, tools manipulation, field visits) in order to introduce several theoretical aspects.

##### (b) Recommendations concerning the Implementation Process

- The extension of accommodation premises, in particular, to carry out several sessions at the same time;
- The low rate remuneration granted to the part-time instructors should be improved;
- The educational and administrative coordination should be improved by assuring the management autonomy in order to improve its management flexibility;

##### (c) Other recommendations:

- To send ONEP experts to the countries of those trainees to maintain the level of training results.
- To separate the participants: such as executive decision-makers, engineers and technicians for more efficient training ;
- To conduct a re-survey about training needs in the participants work place if this project will be continued.

#### 6. Lessons Learned

The support which is brought to ONEP thanks, notably, to JICA, allowed the organisation to strengthen its potentialities and to better widen its activities in order to position itself as the main actor in the development of expertise in African countries and the Middle East.

From our analysis of the project lessons we learn that African countries still need:

- To better manage water resources;
- To control the pollution problem;
- To control water quantity and quality;

We learn that there is a great need for important investments in human resources within African countries essentially training in water professions and in project management. It is obvious that training is the best means to the achievement of this objective.

#### 7. Follow-up Situation:

Human Resource development in the field of water management is highly needed in African countries, therefore continuous cooperation in this field is seemed necessary.

If it will be continued, increase the number of sessions or extension of length of session have to be considered, allowed within the budgetary measures. And more addressing theme and selection of participants have to also be considered in order to improve the training efficiency.



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## 1. OUTLINE OF EVALUATION STUDY

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## 2. OUTLINE OF EVALUATED PROJECT

THEMES	PERIOD
<b>DRINKING WATER PRODUCTION AND DISTRIBUTION MANAGEMENT</b> 1. Drinking water treatment Techniques 2. Water quality control 3. Installations Exploitation and maintenance 4. Rationalization of running expenses (electrical energy, reagent) 5. Drinking water distribution Management 6. Productivity improvement 7. Maintenance and detection of leaks 8. Management installations and drinkable water supply in rural areas 9. Hygiene and safety of potable water supply	From 11 June to 6 July 2001  15 participants
<b>DRINKING WATER CONTROL QUALITY AND FOLLOW-UP</b> 1. Management of water quality 2. Drinking water Physical-chemical analyses 3. Bacteriological analysis 4. Laboratory equipment; laboratory management	From 17 June to 12 July 2002 14 participants
<b>MANAGEMENT OF WATER RESOURCES</b> 1. Water resources protection Techniques 2. Water quality Management 3. Drinking water Safety supply 4. Environmental impact studies 5. Case studies	From 9 June to 4 July 2003  15 participants
<b>LIQUID SANITATION</b> 1. Physical-chemical analyses of waste water 2. Waste water treatment Techniques 3. Installations Exploitation 4. Re-use of purified water 5. Impact studies on impact	From 14 June to 9 July 2004  14 participants
<b>ECONOMIC PLANNING AND PROJECT MANAGEMENT</b> 1. Project definition 2. water demand Evaluation 3. Balance needs - resources 4. water resources Stoking and releasing 5. Technical-economic evaluation of projects 6. Programming and realization of projects 7. Studies of impact on the environment 8. Geographic information system	From June to July 2005  15 participants (Planned)

## COUNTRIES OF PARTICIPANTS

	2001	2002	2003	2004	
1. Benin	2	1	1		4
2. Burkina Faso	1	1	1	2	5
3. Burundi	1	1	1	1	4
4. Cameroon	2	1	2	1	6
Gabon					0
5. Guinea-Conakry	1	1	1	1	4
6. Madagascar	1		1	1	3
7. Mali	1	1	1	1	4
8. Mauritania	2	1		1	4
9. Niger	1	1	2	1	5
10. Central Africa		1		1	2
11. Senegal	2	1	1	1	5
12. Thad		1	1	1	3
13. Togo	1	2	2	1	6
14. Ivory Coast		1	1	1	3
					58

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### 3. INTRODUCTION

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The report includes an examination of the program results taking into account the objectives fixed by the agreement concerning the realization of the tripartite training cooperation project in the field of potable water signed in December 2000 between O.N.E.P. and the Japan International Cooperation Agency (JICA).

This is a synthetic report which gives priority to qualitative analysis. It also contains some quantitative - key data, as illustration.

This project concerns a number of training courses scheduled over five years, at the rate of a one-month session a year. Up to the present time, 4 sessions have been organized. About 15 trainees from French-speaking African countries who work in the sector of potable water and sanitation have benefited from each one of those sessions. On the whole, today, 58 persons have received the training.

This study is the first as regards the final evaluations related to the technical cooperation project. The idea was to introduce an external evaluation to learn lessons for the purposes of a future design for similar projects, to analyze the project results, to improve cost efficiency and to supply the basic material to be used in reporting activities. The mechanism of financing these activities, which was set up in 2000, foresees a contribution of no less than 15 % by the Moroccan party and around 85 % by JICA to be put in ONEP's account.

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### 4. EVALUATION METHODS

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#### Purposes and Objectives of the Evaluation

The purpose of the project evaluation is to analyze in a systematic and objective way the planning, the organization and the progress of the training courses using relevance, effectiveness, efficiency, impact and sustainability as basic criteria in order to measure results and achieved effects.

To carry out the evaluation, the consultants used data and information ensuing from the following elements:

- Literature review to understand the implementation process, project fulfillment measures and identification challenges to be recovered;
- Questionnaires review sent to the African countries ex-participants with the aim of collecting the necessary information to be used in the evaluation;
- Questionnaires review sent to ONEP instructors and also to the relevant officials of the Ministry;
- Review of the budgetary documentation related to the project in order to assess ONEP's ability to guarantee adequate quantity as well as the quality of the educational activities necessary to the satisfaction of the training requirements;
- Direct Observation to ascertain the use of facilities, equipment and manuals during the Training.

## Approach

Consultants used an approach inspired from participative evaluation taking into account that evaluation concerns all those involved in this project. Following this process, everyone was informed about the necessity of evaluating the project.

Questions were developed beforehand for each identified objective and then put in a grid which was handed to JICA. We also determined the evaluation tools and concluded that a revision of those tools would be made before data collection.

Two evaluation methods were prepared. The first, a questionnaire intended for training instructors and which could also be used by those in charge of the project. The second is a questionnaire developed for participant learners in the different courses. This approach could facilitate close contact either by telephone or direct interview.

Questionnaires annexed to the present report were sent by fax and/or mail at the beginning of the survey to all participants, 76 instructors and 58 participants.

Considering the rate of replies to the questionnaires, an additional survey was carried out with all participants who could be contacted by telephone and a series of direct interviews was handled with a sample of instructors who did not reply to the written questionnaires.

Furthermore, individual meetings with the project organizers allowed us to evaluate the management of the program.

## EVALUATION PARTICIPATION

Nature of the survey	Received on 58 Participants	Received on 76 Instructors	Executives and other resource individuals
Questionnaire (34 sent Faxes / Mail)	21	10	-
Direct Interview	-	16	6
Phone interview	09	-	-
Total	30	26	6

## Data Analysis Process and Interpretation

The method used for analysis and interpretation of data was inspired from the following techniques:

- ✓ Compilation of similar answers to find out the rate of satisfaction;
- ✓ Distribution of answers between interviewee categories and according to the evaluation major questions and sub questions using success indicators;
- ✓ Classification of answers according to teaching methods and effects;
- ✓ Classification of results according to effects and according to learning acquisition;
- ✓ Identification of unexpected results;
- ✓ Analysis of major tendencies and release of conclusions and recommendations.

## Methodology Limits

It is important to note that the results of this research are based on the perceptions of those who participated in this study. In writing this report, we tried to confirm the observations coming out from the questionnaires, the results of the interviews and the direct observation.

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## 5. Evaluation results

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The program's achieved results, through the various sessions, must be appreciated with regard to the project objectives in the initial phase; they are used as a reference to this work and include the following goals:

- ↳ To allow participants to improve their skills in the exploitation and maintenance of potable water installations;
- ↳ To develop strategies of rationalization regarding exploitation expenses and the improvement of potable water supply installations returns;
- ↳ To integrate hygiene and safety aspects into potable water supply projects;

The expected results from the part of the participants, according to the record of discussions between the resident representative of JICA-Morocco office and the relevant authorities of the government of the Kingdom of Morocco on the Third Country Training Program, were:

- To be able to plan and manage potable water;
- To improve their knowledge and skills to be able to insure an effective management of potable water production and distribution systems;
- To develop relevant skills to manage sanitation facilities effectively;
- To have the ability to insure water quality monitoring;
- To transfer the knowledge they acquired during the training to other trainees in their own countries;
- To research the new regional cooperation in this area.

Results were compiled and regrouped under the eight points contained in the terms of reference:

- ❶ Evaluation of the project in terms of relevance;
- ❷ Evaluation of the project in terms of effectiveness;
- ❸ Evaluation of the project in terms of efficiency;
- ❹ Evaluation of the project in terms of impact;
- ❺ Evaluation of the project in terms of sustainability;
- ❻ Factors promoting sustainability and impact;
- ❼ Factors inhibiting sustainability and impact;
- ❽ Other matters related to the evaluation.

First of all, we made a point by point summary of the observations which came out from individual or group meetings, according to perceptions and lived experiences by the participants in meetings. Then, we tried to confirm observations by research reports and by documentation produced during the period of the project. Finally, we formulated general conclusions and recommendations.

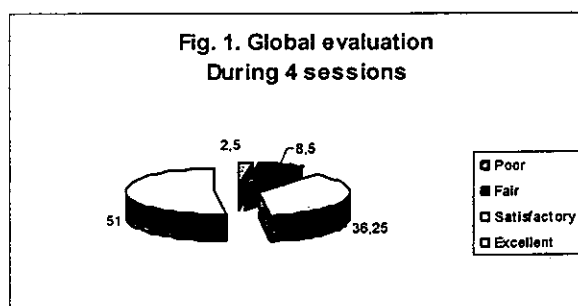
**Table 1. Participants Evaluation Synthesis at the four sessions conclusion (in %)**

		2001	2002	2003	2004	Total %
<b>Global evaluation (Fig. 1)</b>	Poor	-	2	-	3	2,5
	Fair	-	8	-	9	8,5
	Satisfactory	37	32	36	40	36,25
	Excellent	48	58	50	48	51
<b>Theoretical training (Fig. 2)</b>	Poor	-	2	-	-	2
	Fair	-	17	-	-	17
	Satisfactory	-	37	-	-	37
	Excellent	-	44	-	-	44
<b>Practical training (Fig. 3)</b>	Poor	-	5	-	4	4,5
	Fair	-	18	4	15	12,33
	Satisfactory	-	32	7	25	20,67
	Excellent	-	45	89	56	63,33
<b>Objectives / training results / Acquired Experience (Fig. 4)</b>	Poor	6	-	-	-	6
	Fair	16	11	18	-	15
	Satisfactory	54	60	66	57	59,25
	Excellent	24	29	16	43	28
<b>Training Program (Fig. 5)</b>	Poor	-	-	-	-	0
	Fair	6	23	4	-	11
	Satisfactory	54	53	60	-	56
	Excellent	24	12	36	-	24
<b>Management and training organization / Administration and management (Fig. 6)</b>	Poor	5	8	-	-	6,5
	Fair	18	32	-	-	25
	Satisfactory	46	32	-	-	39
	Excellent	31	23	-	-	27
<b>Class Material organization (Fig. 7)</b>	Poor	-	3	-	5	4
	Fair	-	12	19	2	11
	Satisfactory	-	37	36	51	42
	Excellent	-	48	45	42	45

### 5.1. Evaluation of Project in Terms of Relevance

The training evaluation results regarding the four sessions can be considered globally as completely satisfactory. Interviews with learners, teachers and the different level officials allowed us to notice the widely positive effect involving all the actors of this operation.

Both sessions' evaluation (See Tab.1 and Fig. 1.) and the final evaluation confirm the deepness of the debated issues. The total level of satisfaction always turns around 87 %. At present, it is 88.5 %. In fact, after returning home, some participants have put into practice their acquired knowledge in ONEP, and thus, they realized the importance of their training.



Overall, evaluation also confirms the relevance of the carried out choices and coherence with the objectives as regards the elements of the program. The 30 interrogated trainees seem to be satisfied by the training. Thus, there is unanimity of the participants on this question.

*« On the whole, I am satisfied with the training progress and by reception. They helped me a lot because the program coincides with our expectations ». One of the participants wrote.*

Although the countries of the participants had not formulated any official proposition concerning their expectations or the content of the training, the participants estimated that the debated issues fit perfectly with their preoccupations. However, they hinted at the very short time as compared to the importance and variety of subjects.

A Project is viable when its objectives appear to meet the needs of the beneficiaries. Indeed, the subjects fixed by the agreement and implemented during the four sessions fit into the preoccupations and the policy of the guest countries: the mastery of potable water management and that of sanitation. This fact proves the benefits of the project.

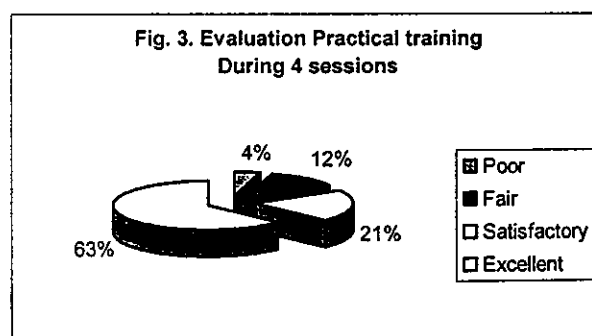
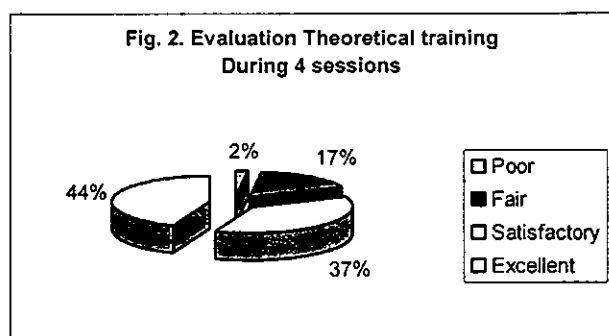
Probably, the choice of the participants who were selected on the basis of certain criteria related to the objectives helped to meet the project objectives with the beneficiaries needs.

However, although sanitation is not yet taken in charge completely by a great number of African countries, the acquired trainings did not only sensitize the participants to challenge this problem, but also familiarized them with the techniques that are used in their professional context.

All the participants answered in the affirmative to the question whether the training was appropriate to means in order to improve the technical level of the participants' countries.

*« My expertise increased as regards the protection of water resources especially on the way of approaching the implemented protection perimeters. My opinion concerns the use of AMDEC method within AEP systems analysis during the technical control. It also concerns the use of my country's water law as a management and appreciation tool ». One of the participants asserted.*

The methods are considered as adapted to the type of competence to be acquired, although the average rate of the theoretical training is about 60 % in comparison with practical training (40 %) according to the survey. It is necessary to remember that the previous evaluations showed a rate of satisfaction of 81 % for the theoretical training (See Fig. 2) and 84 % for the practical training (See Fig. 3).



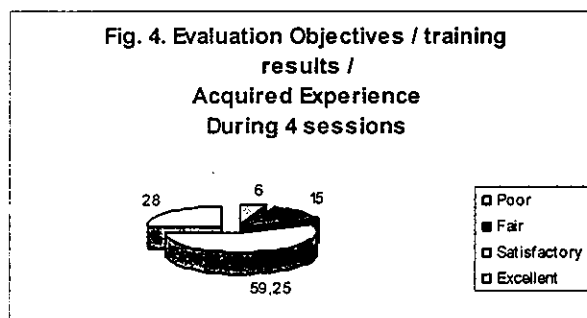
Besides, the interrogated participants estimate that there is a certain equivalence between the pursued objectives and the methods employed (Conferences, courses, visits, practical activities ...) because the equipments used in the ONEP Training Centre (CFTE) and in the practical activities rooms show the presence of practical applications. Moreover, the sites visits organized for the trainees were beneficial.

Equipments are not only adapted to the teaching choices and to the objectives, but they are in sufficient number for all the participants and are compatible with the professional requirements in line with water professions

## 5.2. Evaluation of the Project in Terms of Effectiveness

The evaluation of effectiveness consists in verifying if the implemented project had (or will have) beneficial effects on the targeted group and to determine the effectiveness of the project. As all the anticipated aspects of the program were approached, as underlined in these terms by a participant, one can say that the objectives were achieved according to the planned anticipations.

The sessions' results, stemming from the project outputs, confirm the achievement of objectives, it since the majority of the participants (See Fig. 4) support the effect felt on the level of their performance and on their technical capacity.



### The Instructors/Lecturers

The quality of the training consultants was improved in most cases and their contribution was appreciated by the participants. It is true that pedagogy was sometimes inadequate, but on the other hand, it is necessary to recognize that generally most instructors are first specialists in their own field and were not all prepared to deal with teaching activities. A solution can be envisaged on this subject.

### Methods

The training processes were fitted out so as to encourage the participants to improve: Alternation between the training sequences. According to the participants' testimony, an alternation between approaches and methods allowed the diversification of the teaching / learning process: lectures - illustrating Moroccan specific cases - exchange - field checking activities.

### The Training Content Theory Practice

The 60/40 share between theory and practice represents the average participants' appreciations. Actually, such a large gap between theory and practice could be explained once again by the participants' heterogeneity.

## Materials and Equipment

The importance of equipment was closely linked to the existing installations although the ONEP Training Centre (CFTE) benefited from the training courses to equip itself with teaching materials particularly a scanner, a projecting video and camera, a central unit for projection as well as a satellite receiver in the participants' accommodation.

Equipment needs were evaluated again in the course of the project involving stationery and appliances purchases. However, they only renovated installations and premises without buying new equipment. The usefulness of Equipment in these projects was of major importance.

## Period

The choice of the learning period is suitable and does not seem to disturb the participants. The real problem concerns rather the length of time involving the progress of the program activities. Indeed, the objective of improving the technical capacity of control and analysis, for example, did not seem to achieve the expected effectiveness. This was imputed essentially to the lack of time needed for the manipulation of equipment and tools as learning is before all a question of practice and experience.

However, according to the instructors, this is due to the heterogeneity of the groups, in fact, participants themselves hint at it. Although all participants belong to the water sector and in spite of the process of their selection, the diversity of their horizon creates a multiplicity of expectations. It is, therefore, quite natural that a deep analysis of the subjects will depend on the variety of interests and on the learners' levels of responsibility.

### 5.3. Evaluation of the Project in Terms of Efficiency

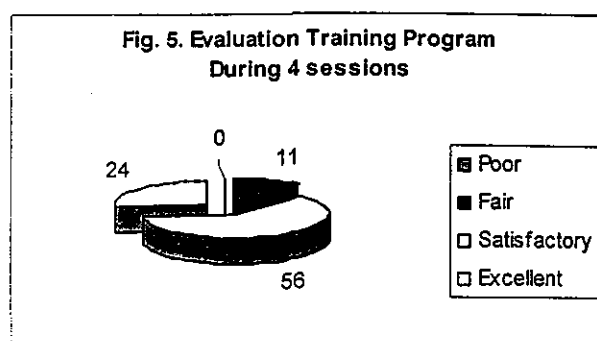
Most projects were carried out within the limits of the fixed budgets or without sensitively deviating from it. In many cases, expenses were lower than the initial budget. The third session, however, recorded overtaking expenses due to the unexpected effect of the transport costs increase during that period.

Table 2 shows the project budgetary shares by JICA and ONEP which are respectively expressed according to value in DH and in percentage. Overall, the largest expenditure was connected with the participants' air transport, which represented about 42 % of the budget of every session.

**Table 2: Budgetary Elements (in DH)**

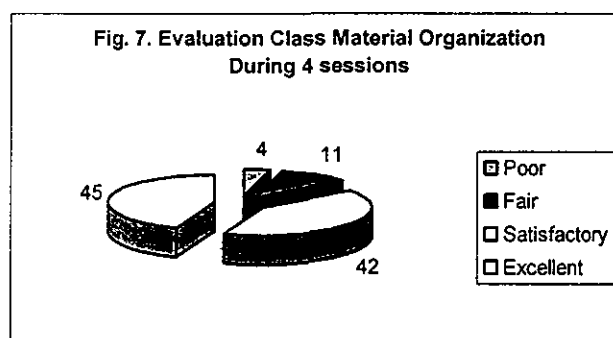
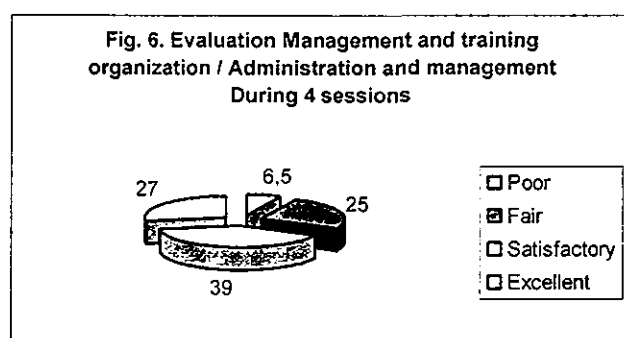
Session	Estimated	JICA's Share		ONEP's Share		Total
2001	550 900.00	416 605,00	81%	133 000,00	19%	549 605,00
2002	522 400.00	432 849,60	79%	139 000,00	21%	571 849,60
2003	475 801.28	486 187,28	79%	144 000,00	21%	630 187,28
2004	687 600.00	492 325,94	75%	162 800,00	25%	655 125,94
<b>TOTAL</b>	<b>2 247 087,28</b>	<b>1 827 967,82</b>	<b>78,5%</b>	<b>578 800,00</b>	<b>21,5%</b>	<b>2 406 767,82</b>

The evaluation results of the previous four sessions displayed a rate of 80 % total satisfaction concerning the evaluation-training program (See Fig. 5). Taken into consideration that the training cost (excluding air transport cost), is relatively small, while the satisfaction rate is high, it might be judged that the training budget was used efficiently.



With respect to the curriculum, if the weekly schedule and the workload are, in fact, considered adequate by the majority, more than half instructors find the curriculum rather dense and did not always succeed in dealing with their issues profoundly. Those who were questioned on this subject confirm that the length of time and groups heterogeneity do not allow them to go deeper with their analysis. Moreover, the learning progress needs additional clarifications and refers to other themes making it difficult for instructors to go into details for fear of neglecting the essential parts.

The participants estimate that human and material resources were sufficient in quantity and convenient in quality for the execution of the training (See Fig. 6 and 7). The multiplicity of instructors was really enriching and the administrative supervision was appreciated. However, some participants referred to a lack of coordination regarding greeting and field visits follow-up.



Besides, training was considered to be carried out at the right moment. The sessions started as scheduled and the participants recommend the preservation of the sessions planning during the same period.

As indicated above, the training program was carried out as planned. Nevertheless, some scheduling changes related to the availability of the instructors took place.

#### 5.4. Evaluation of the Project in Terms of Impact

When the participants were asked about the training impact and effect, they all supported the idea that, in fact, it raised their technical level and increased their argumentation capacity.

*The content of this training had an impact within the framework of our technical activities dedicated to the control of the production and the distribution of potable water. My passage in the ONEP Training Centre (CFTE) constituted for my organization a reference to the extent that I am consulted on questions related to potable water and sanitation management. Said one participant*

Besides, positive effects concerning the question of exchanges established among participants are undeniable. They all appreciated the important participation of colleagues from different countries. They regretted, nevertheless, the non-participation of Moroccans. They estimate that exchange with national colleagues could have been more profitable and would have had a more important effect of integration.

As for the planning of the training actions, both staff and the participants seem to be satisfied.

Once again, unanimously, the participants recognized that they were able to use the results of the training in different manners once back in their countries. This is clearly shown from the answers related to the questionnaires: (improving their co-workers and colleagues acquired knowledge, reproducing training, circulating documents within the departments of their organizations, transferring knowledge, organizing seminars, improving daily work, etc.).

*I shared a part of this knowledge with my co-workers and gave them some of these documents. I also gave my wife documents about management environment. She was granted a UNESCO scholarship in this field. Commented by one of the participants.*

Besides, 75 % of the participants estimated that their organization benefited, in a way or another, from the training acquired skills. Certain participants even detailed the way by which the technical level of the work place was improved thanks to the result of the training. Thus, the following points are worth noting:

- ☞ One participant stated: “a synthetic note was made to the hierarchy on the possibility of setting up the perimeters of protection by clearly identifying the immediate, near and remote perimeters of protection.”
- ☞ Another one pointed out: « my opinion is taken into account seriously because of a relevant argumentation which became important after my training in the ONEP Centre»
- ☞ A third participant asserted: “my boss charges me with all the files which involve the quality of potable water.”

Positive impacts are also seen through the consequences engendered by the project implementation. Particularly, the reputation of the ONEP Training Centre (CFTE) of ONEP places itself among the specialized training centers in Morocco. Thus, LYDEC (potable water and sanitation agency,

Casablanca) has already started a partnership with the ONEP Training Centre (CFTE) involving trainings on water quality management in exchange for its experience in the field of sanitation.

Furthermore, a positive impact, raised by instructors, is represented by consequences felt through their performance. The preparation of courses and didactic tools has, in a way, lead them to put more emphasis on research and to improve their lectures. Assessments are used as a useful element within this context.

The persons in charge and a great number of instructors believe that ONEP should further develop the export of the national expertise related to their field of specialty. The previous experience with the Palestinians and the example of the hydraulic department with several African countries in the field of dams consolidates their position.

### **5.5. Evaluation of the Project in Terms of sustainability**

The ONEP budget share was increasing appreciated from one session to another (see Table 2). The interviewed directors seem to share JICA's idea concerning ONEP's rate of contribution to 30 %. An intention was also manifested regarding a better cost analysis with the help of the cost accounting service.

The will to organize and to intensify the cooperation which is developed within the framework of the project and to insure the institutional support constitutes a preoccupation for ONEP.

Discussions with the persons in charge show that the current project does not aim only to reach the specific objectives, previously described, but also through them to improve the development of training expertise in the specified fields. As a result, ONEP has undertaken three types of action:

- An immediate action: (Field observation confirmed this action) the renovation and reorganization of class rooms and guests accommodation, as well as the hotel which is booked for outside guests and the buildings allocated to the trainees of the organization itself. Thus, the fifth session should benefit from completely renewed premises and new furniture.
- A short-term action: A development project of the Training Centre is under elaboration having as a main objective its promotion as a centre enjoying the administrative and financial autonomy. Autonomy would allow a better flexibility of management and flexibility of action because certain current constraints may slow down the fast display of actions such as the uniqueness of the ONEP budget and the dispersal of the training functions, reception, cooperation and finance.
- A middle-term action: the same development project foresees the transformation of the ONEP Training Centre (CFTE) to an International Centre for Water Professions (CIME) and the extension of accommodation and training premises. This initiative objective is to meet the strong demand of current clients represented by operators and Moroccan private companies operating in the field of water and environment, and potential clients constituted mainly by the Maghreb countries, the Near East and French-speaking Africa.

The ONEP Training Centre (CFTE) repositioning policy is the result of a number of experiences which have either been completed or started with foreign partners:

- ✓ The German INWENT for the development of training in water quality targeting the African countries.
- ✓ The French Conservatoire National des Arts et Métiers (CNAM) for the development of training programs and research action / expertise, the implementation of professional skills validity (engineers , technicians and trainers qualification) and distance learning.

It is also necessary to place the activities of the ONEP Training Centre (CFTE) within a competitive context involving various national training centers. ONEP intends to strengthen its positioning as a leader in the water, environment and sanitation sectors by upgrading its training centre and raising it to the level of international standards.

On the whole, the impact is certain since the ONEP Training Centre (CFTE) is about to achieve the maturity phase. Working experience with several cooperation organizations seems to have consolidated the ONEP Training Centre training strategy and encouraged trainers by strengthening their assurance and their confidence in their competence and in the possibilities of improving their knowledge. Judging from the above-mentioned facts, sustainability is confirmed.

## 5.6. Sustainability and Impact Promoting Factors

Returning to the project's specific and global objectives, results analysis and evaluation show the persistence of the project direct and indirect effects.

Several indicators consolidate the idea of the project sustainability:

- According to the participants statements, the succession of the training sessions allowed ONEP to become popular with the organizations of the candidate countries by offering them the possibility of appropriating concretely the new methods of managing the water resource and the Moroccan experience in this field;
- The recognition of the participants after several months, even several years, of the acquired sustainable skills and their wish to return to Morocco to complete their unfinished technical training;
- The organization system and the capacity of the ONEP Training Centre (CFTE) to manage two or several projects at the same time and its skill to mobilize an important number of employees belonging to several departments under its direct control;
- The ONEP Training Centre (CFTE) will to maintain its position as a leading organization in the field of training specializing in water and its wish to strengthen its capacities in improving the sanitation aspect;
- The quality of instructors, both engineers and technicians, who have not had a considerable teaching training, succeed in rousing the participants' interests and in transmitting their knowledge. Some of them understood the necessity of establishing a trainers' network of experts who could be able to act quickly to an internal or external request and thus by strengthening their teaching capacities and benefiting from the trainer-training Programs;
- ONEP's financial capacity which favors the capacity of equipment, compared with the other Moroccan organizations;
- Since its creation, the ONEP Training Centre (CFTE) experience in water and sanitation techniques has allowed the centre to organize more than 20 000 Man / days training. Organizers and trainers have acquired more knowledge in designing and conducting training projects.

All these indicators tend to the expansion of the Training Centre.

Besides, the tripartite cooperation and the financial support as well as expertise from partners such as JICA, INWENT or CNAM emphasize ONEP's satisfaction because they allowed the opening of Morocco towards a better South / South cooperation, while previously the established custom was more North / South cooperation.

On the other hand, the project experience allowed the emergence of other training needs felt by the participants. All those involved in the project were able to identify training needs to be covered in the future. Collected, these needs revolve around the following subjects:

- Waste water treatment involving laboratory participants;
- Waste water collection and networks management involving developers;
- Managing the extension of water distribution in rural areas;
- Analysis
- Projects administrative and technical Management
- Costs recovering
- Measurement theoretical Aspect and installations design
- More practice as regards the functioning mode and study files and activities management
- water quality evaluation system in connection with exploitation and/or the sanitary effect
- Analytical Quality control
- How to prepare national standards of potable water
- The biologic sector (parasitological, test of toxicity ...)
- How to get possession of accreditation networks cartography
- Data base

### **5.7. Sustainability and Impact Inhibiting Factors**

Numerous irritating elements could prevent the possible multiplicity of projects and training programs from reaching their full potential. Therefore, a certain number of factors should be raised in the short term:

#### **a. Factors concerning Planning**

- Group's heterogeneity and the length of each teaching session do not allow the instructors to cover all the subjects in depth.
- There is neither time for additional applications (laboratory analyses, tools manipulation, field visits) nor time for the implementation of several theoretical aspects.

#### **b. Factors concerning the Implementation Process**

- Insufficient accommodation premises as it is impossible to carry out several sessions at the same time;
- There are some factors that bureaucratic decision-making process delays smooth coordination of educational and administrative procedures ;
- The low rate remuneration granted to the part-time instructors does not incite them to improve their pedagogical research;

These factors can be easily exceeded, given the optimism of the project's various actors and notably the ONEP's administration.

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## 6. CONCLUSIONS

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According to the testimonies which we received, the participants seem to favor the approach by practice. Learners feel better within a practical context and are encouraged with the familiar aspect and the flexibility of the learning environment. Instructors are satisfied to notice that their work brings something to the participants and to their institution.

Besides, the exchange framework created by such tripartite projects constitutes a recognized and obvious opportunity for all parties because it allows each one of the parties to meet its challenges and to test its capacities.

However, in spite of certain small constraints which are mainly related to the length of time devoted to the training, groups heterogeneity or the instructors motivation, our evaluation suggests that these constraints could be relatively easy to relieve.

We have, thus, recommended a series of measures to be used in solving these underlying problems. We suggest a number of relevant actions capable of improving the ONEP Training Centre (CFTE) performance ranging from clarification of roles and responsibilities to the simple recognition of efforts displayed by the various actors of the project, the teachers and the professional trainers as well as the initiators and the project directors.

Concerning the overall project, execution and final results can be considered positive and they, generally, join the sustainability perspective. The relevance accorded of this type of project and the debated issues aim at the effectiveness of achieving most objectives and at the efficiency in managing means and resources assigned to the project.

Equipment bought in conformity with the project was used and there was no wastage of fund in this respect.

Quantitatively, results are significant. More than fifty participants have developed similar techniques which can only strengthen coordination between involved organizations and share a common consciousness of responsibility towards the mastery of water and environment management. All actors converge on the certainty and the commitment in the direction of a better protection of these rare resources constituted by water and earth.

The role of the tripartite cooperation and the financial support and that of expertise on behalf of the partners such as JICA, INWENT or CNAM showed the importance of this type of partnership because it diversifies exchanges and creates interrelations between countries with different development levels. The major impact is particularly important as it contributes to the opening of Morocco and to the intensification of South / South cooperation.

This type of project exercised a guaranteed training effect with both the participants and their respective organizations as well as the training organizations. Consequently, ONEP Training Centre (CFTE) will be able to consolidate its position at the national level and aspire to be positioned at the international level.

Participating African countries still have the strong need to manage and improve the water quality, it is desirable to continue the cooperation for this sector.

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## 7. RECOMMENDATIONS

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Overall and in the light of the observations brought out by the evaluation, it is necessary to maintain the programs flexibility, to increase or to improve the existing documentation to suit learners with special needs and to provide trainings for teachers who have to adapt themselves to more demanding and varied clients, according to the survey.

The training should also be enriched by providing project management courses as well as courses on the practical needs of the participants.

To achieve the new objectives, the project should manage to find a way of continuation because the major argument involves the capitalization of experiences and the intensification of this type of fruitful training which is very appreciated by African countries.

It will be important, however, to pay attention to the following observations in order to promote the sustainability of the project. These observations are presented under six recommendations categories:

- ↳ Recommendations concerning Planning (two recommendations)
- ↳ Recommendations concerning the Implementation Process (four recommendations)
- ↳ Recommendations concerning a strategy vision to reinforce South / South cooperation (two recommendations)
- ↳ Recommendations concerning Integration of competence and current know-how (five recommendations)
- ↳ Recommendations concerning Performance structure (two recommendations)
- ↳ Recommendations concerning Training program and content (six recommendations)

### 7.1. Recommendations concerning Planning

1. To increase the number of sessions or extend the training period in order to allow the instructors to cover all the subjects in depth.
2. To allow enough time for additional applications (laboratory analyses, tools manipulation, field visits) in order to introduce several theoretical aspects.

### 7.2. Recommendations concerning the Implementation Process

3. In the first place, *accommodation premises should be extended* because there are only 15 rooms. This fact explains why the training centre cannot handle several sessions at the same time. The ONEP Training Centre (CFTE) development project would gain a lot once the extension is put into correct form;
4. *The management autonomy of the centre "bureaucratizes" the decision-making process* and delays the capacity of the organizers reaction;
5. *The low rate assigned to trainers for their part time teaching does not seem to motivate them.* The trainers believe that an hourly rate of DH 200 (about US 16\$) taxed at 44 % in conformity with the IGR (General

Income Tax) does not incite them to improve their pedagogical research. It is necessary to recognize, however, that many of them think that their teaching participation is a matter of personal development and satisfaction rather than financial;

6. *The pedagogical and administrative coordination should be reinforced* to better master the participants continuous demanding requests.

### **7.3. Recommendations concerning the Strategy Vision of reinforcing south / South Cooperation**

7. Developing a partnership between ONEP and the organizations whose trainees are involved
8. Sending ONEP experts to the trainees' countries to maintain the level of training results

### **7.4. Recommendations concerning Integration of Competence and Current Know-How**

9. Perfecting some ONEP trainers' know-how in Japan or elsewhere to diversify their apprehension of the problems and to integrate the new techniques to be adapted in African countries;
10. Perfecting trainers teaching methods;
11. Constituting a group of trainers to be available to participate in any training action since the ONEP Training Centre (CFTE) will continuously be in need for their services;
12. Acknowledging the role of the participants. It is recommended to conceive a mechanism by which participants' contribution, efforts and achievements will be acknowledged;
13. Setting up a data base of the participants. It is recommended to set up a network which would allow the tracking down of trainees and the pursuit of their progress. The network would up date a data base including information exchanges and results and would maintain contact with the creation of a discussion forum via Internet allowing exchanges with instructors and creating team correspondents within countries which benefited from the project ...

### **7.5. Recommendations concerning Performance Structure**

14. To endow the ONEP Training Centre (CFTE) with more autonomy to increase its management flexibility;
15. To regroup services in charge of the projects to entail more coordination

### **7.6. Recommendations concerning Training Program and Content**

16. To maintain the training duration, but to multiply its frequency, for example, twice a year;
17. To draw a line of differentiation between participants: executives-decision-makers, engineers and technicians. Both trainers and participants estimate that heterogeneity can be solved by regrouping participants according to their specific needs;
18. To carry out a research on training needs within the participants work place;
19. To privilege the presentation of concrete and complete cases since participants should take more advantage of their presence in ONEP to learn about its experience;
20. To split the major themes to be able to go into details with sub themes

21. To introduce more group work to involve practical activities; Indeed, all participants are unanimous about emphasizing practical trainings in the future. One participant summarized this assertion pertinently:

*To put more focus on the practical experience of the various concepts since the trainees aim mainly at a better understanding to the problems solution, or at a better management of the duties which they handle. Resorting to the theoretical aspects is easily accessible from their respective work places. In fact, the various trainees' testimonies can only enrich the instructor's knowledge.*

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## 8. LESSONS LEARNED

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The lessons taken out of this project are ensued from the obtained results and from the proposed recommendations.

### Lessons Related to The Project:

It is necessary to recognize that the tripartite cooperation project, the object of the present evaluation, constituted one of the results related to the implementation of the Tokyo Conference on the development in Africa (TICAD II), in October 1998. The conference laid the bases of the South - South Cooperation. Indeed, this type of cooperation became one of the priority axes of the Morocco-Japanese cooperation.

Before its completion, which is foreseen for July 2005, the project has already offered tangible results and stressed the interest of this type of approach in the development of the South. Moreover, the training courses revealed the real problems lived by these African countries as regards water cooperation management and showed the necessities of mastering environmental resource and protection.

**For certain participating countries, water is a limiting factor to development.** It is then necessary to emphasize the importance of dialogue on water management resources on the basis of hydrographic pools, even beyond borders. It is also necessary to highlight the need to manage demand and to save water, the need and the importance of information exchanges, as well as training for water professions etc.,

**For other countries, hydraulic resources are more plentiful.** It is then significant to introduce engineering solutions to change the image of nature in order to thwart this irregular temporal and spatial distribution of water. This could be done by building large dams and large pipes so as to regularize and transfer resources to remote places and to make water available when it is necessary and where it is demanded.

It should be said that Morocco has been training people in water management for ages. The training involves employees at all levels of the organization from those in charge of streams supervision or water distribution in the secondary networks to higher-level executive engineers. This experience which,

until lately, has been especially used for the benefit of the Moroccan professionals, showed its capacity to be transposed into other African countries, where the experience of all can be still easily shared because these countries are confronted with similar climatic conditions of ground and cultivation.

During the sixties, seventies and eighties, Morocco managed to set up several water-treatment plants and potable water distribution networks. Meanwhile, the growing pressure of demographic growth was accompanied by the improvement of water supply infrastructures. However, it is necessary to introduce protection measures of the environment against the pollution engendered by greater discharges of wastewater. Therefore, Morocco has opted to concentrate more on the policy of water protection and especially on pool management which is considered as being the optimal structure for integrated management, taking into account economic demands as well as ecological imperatives.

Within this framework, ONEP is considered as the main actor in accompanying this policy thanks to its experience and technical and human capacities. As a result, ONEP grants a particular interest to training in water and sanitation techniques.

Since its creation in 1978, the ONEP Training Centre (CFTE) supports the development of potable water and the sanitation sector and contributes, thanks to the acquired experience, to the upgrading of national and international ONEP partners.

The support which is brought to ONEP thanks, notably, to JICA, allowed the organization to strengthen its potentialities and to better widen its activities in order to position itself as the main actor in the development of expertise in African countries and the Middle East.

It is evident that JICA has considerable technical capacity for the implementation of technical assistance projects aiming at improving water quality and environment control. It realized, in conformance with supported projects in Morocco, a great number of useful actions in the field of fishing and training. Besides, since its involvement in such projects, JICA has established solid contacts with specialized organizations and international experts whom it can consult whenever it is necessary.

JICA contributed to open the way towards a real South - South cooperation. It is capable of bringing more support by developing a common awareness as to water management. Thus, from our analysis of the project lessons we learn that African countries still need:

- ✓ To sort out together water management resources on the basis of hydrographic pools;
- ✓ To forge a solid and acute policy between neighboring countries who should harmonize strictly their approach of water management and to benefit from each other's know-how;
- ✓ To set up biologic water-treatment plants, capable of controlling the pollution problem of the aquatic environment;
- ✓ To manage demand and water saving;
- ✓ To control water quantity and quality;
- ✓ To exchange information,

From what has been said, we learn that there is a great need for important investments in human resources within African countries essentially training in water professions and in project management. It is obvious that training is the best means to the achievement of this objective.

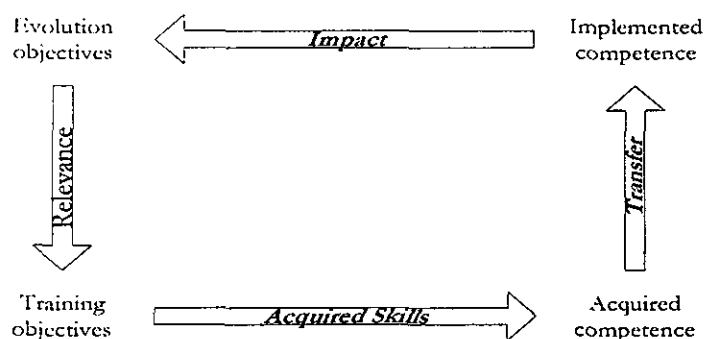
In the light of this successful experience, it is natural to think of improving the acquired knowledge by opening a way to the project continuation, and to favor the intentions related to the development of le

ONEP Training Centre (CFTE). Indeed, the centre has already started working on a “**Development Project of the CFTE**” which would benefit by being supported to make a pilot centre of itself both in the region and in the continent. JICA would also benefit in several ways and, consequently, would consolidate its reputation in the field of water as it has already succeeded in making itself noticeable in the field of fishing.

### Lessons Related to The Evaluation:

Finally, an ultimate lesson is resulted from the analysis of the evaluation system:

❶ The evaluation under study revealed the importance of determining beforehand a certain number of indicators and measure objectives in order to master evaluation. The most effective way of preparing a study of evaluation is doubtless to take into account various levels of evaluation which the organization decides to limit by integrating them into a systematic training perspective, according to the following plan:



❷ A study of the evaluation questionnaire should be conducted also. Beside a survey of the training needs of the guest countries, which allows the setting up of the training bases, it is recommended, in the future, to revise the evaluation form by foreseeing three additional questionnaires:

- A questionnaire at the beginning of the training involving the objectives to be achieved (training objectives, evolution objectives, transfer objectives) and the main measure indicators ;
- A questionnaire should be conducted by the end of the training resuming the same objectives and adding the learned skills. This questionnaire will produce the first elements of evaluation;
- And a final questionnaire resuming the elements of the second questionnaire and completing them with the training impact. This questionnaire will produce measure additional elements.

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## 9. FOLLOW-UP SITUATION

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Human Resource development in the field of water management is highly needed in African countries, therefore continuous cooperation in this field is seemed necessary.

If it will be continued, increase the number of sessions or extension of length of session have to be considered, allowed within the budgetary measures. And more addressing theme and selection of participants have to also be considered in order to improve the training efficiency.

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## 10. PARTICIPANTS QUESTIONNAIRE

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Country: .....

Name: .....

1. Is the training content appropriate to your needs? Are you satisfied?
2. What was the portion of theory as compared to practice during the training?
3. Has the training content achieved the appropriate high level?
4. Has the training programme been carried out as planned?
5. What methods were used by the instructors?
6. Were materials and equipment as well as teaching and equipment organisation appropriate?
7. Do you think your technical level improved after the training?
8. Did you receive a relevant training to the techniques used within your professional context?  
Has the training improved your daily activities?
9. Did you use any acquired skills related to the training once back home (teaching colleagues, organising seminars, circulating course texts ...?)
10. Have you perceived any consequences within the work place as a result of the training?
11. Do you think your country / organisation still needs this type of training?
12. What aspects of the training course should be modified (course level, duration, equipment/organisation, theory / practice equation?)
13. Have you identified any training additional new needs in comparison with the initial training?

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## 11. INSTRUCTORS QUESTIONNAIRE

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Name: .....

Position: .....

1. Do you think the granted training contributed to the improvement of the participants' technical level?

2. Were materials and equipment as well as teaching and equipment organisation appropriate?

3. If you have to participate again, will you approach your subject differently? Why?

4. What aspects of the training course should be modified? (Course level, duration, equipment /organisation, theory / practice equation?)

5. Do you think that ONEP has acquired an experience in handling such a project? In what way can one see a continuation of the project?

6. Have you identified any training new needs with the participants? What are they?

Any other possible comment: ...

## 12. EVALUATION GRID

Criteria	Evaluation Questions		Achievement criteria/measures	Data needed	Data source	Data collection methods
	Main questions	Sub questions				
RELEVANCE	Could the prescribed training allow the achievement of the objectives?	Was the training objective in line with the policies of the participant's countries?	Coherence of objectives with in line with instructions	Instructions Objectives	Documentary resources	Documents analysis
		Was training appropriate as a means which raises the technical level of a participant's country?	Participants expected measures Countries objectives	Participants expectations	Investigation	Questionnaire. Telephone Interview
		Did the training content meet the participants needs ? Were the participants satisfied? How many?	Rate of satisfaction	Intermediate and final evaluations	Evaluations content. Investigation	Questionnaire. Telephone Interview
	Is the program entry admission adequate with the training objectives?	Was selection of participants appropriate?	List of selected participants among candidates	Candidates Files Selected reports	Candidates' files Selected reports	Documents analysis
		Were the necessary functions related to ONEP activities and to the realization of the training program provide?	Units allocated to the program	Number and nature	Investigation	Interviewing organizes and managers. Direct observation
	Is the programme structure equivalent with the training objectives?	Are methods adapted to the type of competence to be acquired?	Rate of theoretical / practical training	Types of methods	Program	Documents analysis
		Are the documentary resources in line with the program activities?	Coherence	Nature of documents	Distributed documents	Documents analysis
		Are the pursued objectives and the used methods equivalent?	Coherence	Objectives Types of meth.	Investigation	Questionnaire. Telephone Interview
		Are equipments adapted to the pedagogical choices and to the objectives?	Number of installations	Types of the equipments	Investigation	Interviewing organizes and managers
		Is there enough equipment to the total number of participants?	Types of equipments	Equipment quantity. Equipment quality	Investigation	Interviewing organizes and managers. Direct observation
		Is equipment compatible with professional requirement?				
		Did the training involve techniques in line with the participant professional context?	Number of equipments	Different organizations	Investigation	Questionnaire. Telephone Interview
		Are instructors trained to use the various pedagogical methods according to the context?	Trainers Profile	Identification of trainers	Trainers' files	Documents analysis
		Are methods adapted in line with the participants training levels?	Methods Quality	training level	Investigation	Documents analysis

Criteria	Evaluation Questions		Achievement criteria/measures	Data needed	Data source	Data collection methods
	Main questions	Sub questions				
<b>EFFECTIVENESS</b>	Has the training system achieved its goals?	Could the training organization (ONEP) accept the expected number of participants? If not, what was the reason?	Number of participants / capacities and infrastructures	Facilities. Participants list	Training centre Participants	Interviewing instructors and managers. Direct observat. Questionnaire. Telephone Interview
	Have the system and the implemented training produced the expected results in accordance with objective results?	Was the training content suitable to the level and the depth of training?	Trainings contents	Programs	Training centre Participants Instructors	Interviewing organizers. Direct observat. Questionnaire. Telephone Interview
		Were a instructors teaching methods suitable?	Used methods	Types of methods	Participants Instructors	Questionnaire. Telephone Interview
		Did the training involve a suitable equation between theory and practice?	Rate of practical theory	Elements of theory and practice	Instructors Participants	Questionnaire. Telephone Interview
		Was the period of training suitable?	Training load : number of hours	Programs	Training centre	Interviewing instructors and managers. Direct observat.
		Were the used facilities and equipments enough in order to obtain the training effect?	Capacity of equipments	Infrastructures	Training centre	Interviewing instructors and managers Direct observat.
		What were the factor of inhibiting and promoting the effect of the training?	Insufficiencies Dissatisfactions	Evaluations	Participants Training centre	Interviewing instructors and managers. Direct observat. Questionnaire. Telephone Interview
		Is there any point that the training contents should be improved?	Elements to be improved	Evaluations	Participants Instructors	Questionnaire. Telephone Interview

Criteria	Evaluation Questions		Achievement criteria/measures	Data needed	Data source	Data collection methods
	Main questions	Sub questions				
EFFICIENCY	Appreciation of the result and the method with regard to mobilized: material, human and financial resources.	Were human and material resources of sufficient quantity and quality timely input for the execution of the training?	Number of appointed persons Allocated installations	Appointed persons. Installations.	Training centre Investigation	Interviewing instructors and managers. Direct observat. Questionnaire. Telephone Interview
		Was training carried out at the right time?	Training organization period degree of satisfaction	Evaluations.	Investigation	Questionnaire Telephone Interview
	What are the selected means and how they are used?	Was the training program carried out as planned? Wasn't there any frequent change of the program during the course? If yes, why? What are the factors which contributed to or inhibited the efficient execution of the training?	Degree of realization of the foreseen program  Constraints	Evaluations.	Training centre Investigation	Interviewing organizers. Direct observat. Questionnaire. Interview téléphonique
		Is a training result corresponding to input cost? Wasn't there any alternative means to attain at lower cost? Wasn't the higher achievement realized at the same cost?	Coherence of costs with regard to results. Number of measured effects and their importance to the global cost of the training. Degree of knowledge acquisition regarding the different modules and their estimated cost	Financial report. Technical report.	Training centre Instructors	Interviewing instructors and managers. Direct observations. Questionnaire Interview
		Are the training process well fitted out so as to encourage participants to improve their know-how?	Alternation between the sequences of training	Trainings. Programmes.	Training centre	Interviewing instructors and managers. Direct observat.

Criteria	Evaluation Questions		Achievement criteria/measures	Data needed	Data source	Data collection methods
	Main questions	Sub questions				
IMPACT	Appreciation of project effects on the totality of the environment (technical, economic, political, ecological).	How are the participants utilizing the training result after returning their country? Did they perform any special activity (training documents circulation, technology transfer to a co-worker, holding seminar, improvement of everyday work, etc.)? Were there any factors that inhibit from spreading the training result?	Degree of employability Self image changes. Purchase of new competence Institutional recognition	Acquired skills. Evaluation of trainings.	Training centre Participants Instructors	Interviewing instructors and managers. Direct observation. Questionnaire. Interview
		Did the technical level of the participant's workplace improve by the training result? If so, how?	Learners degree of mastering theoretical and practical knowledge. Emerging new competence perceived by learners. Competence transfer. Considerable change in job accomplishment. Theoretical and practical acquisition degree within each module.	Acquired competence. Evaluation of trainings.	Instructors Participants Investigation	Questionnaire. Telephone Interview
		Did the reputation of a training organization (ONEP) go up in Morocco?	Improvements felt within ONEP	Effects of the project on the organization and the environment.	Instructors Training centre. Department cooperation.	Interviewing instructors and managers. Direct observat. Interview
		Wasn't there any negative impact? If yes, what is it?	Positive and negative changes	Effects of the project on the organization and the environment.	Department cooperation. Instructors Training centre	Interviewing instructors and managers. Direct observat. Interview
		Significant changes	Foreseen and unforeseen changes. Changes in people's life.	Effects of the project on the organization and the environment.	Department cooperation. Instructors Training centre	Interviewing instructors and managers. Direct observat. Interview

Criteria	Evaluation Questions		Achievement criteria/measures	Data needed	Data source	Data collection methods
	Main questions	Sub questions				
SUSTAINABILITY	Will the institutional frame allow to substantially pursuing the management of such a project?	Is the capability (organization system, qualified personnel arrangement, financial capability, etc.) of a training organization (ONEP) secured? Is there any chance of being expanded from now on? Is there any factor to inhibit?	Effects on the organization and environment. Improvement of the image of the organization	Medium-term effects. Long-term effects	Department cooperation. Training centre Instructors	Interviewing instructors and managers. Direct observat. Interview
		Are there any facilities and equipments, etc. which the training organization (ONEP) prepared by the self-budget?	Rate of equipment	Purchase of new equipments	Training centre	Interviewing instructors and managers. Direct observat.
	Will modalities foreseen by the operators allow beneficiaries to continue operation (technical mastery, input supply, financial means), if so, on which conditions?	Is there any system which the participants can continue and develop a training result after returning their countries? Is there any factor of difficulty?	Degree of acquisition concerning transmitted theoretical and practical knowledge. Evolution of introduced competence. Immediate application of acquired knowledge. Knowledge level evolution. Competence level evolution.	Knowledge and know-how acquisition.	Participants Instructors	Questionnaire Interview
	Has the project got a long life learning duration? Can it maintain what was acquired?	Are there any same training needs in participating countries in the future?	Training new necessities	New training necessities identification	Participants Instructors Training centre	Interviewing instructors and managers. Direct observat. Questionnaire. Telephone Interview



