

No.

Terminal Evaluation Report
on
Management of Water Resources and
Improvement of Water Use Efficiency in the Dry
Areas

JICA, Syria, ICARDA

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JICA Syria Office

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Summary

I. Outline of the Project

Country : Syrian Arab Republic

Project title: Management of Water Resources and Improvement of Water Use
Efficiency in the Dry Areas

Issue/ Sector: Training, Agriculture

Cooperation scheme: TCTP “Third Country Training Program”

Division in charge: Rural Development Dept.

Total cost:(2002-2004): 37,811,445 Yen (\$1 US = 105 Yen)

Cost per participant: 547,995 Yen

Share of Japan’s contribution: 50%

Partner Country’s Implementing Organization: International Center for
Agriculture Research in Dry Areas “ICARDA”

Period of cooperation: 3 years , FY2002 ~ FY 2004

Extension: N/A

Supporting organization in Japan: N/A

Related cooperation: Another TCTP “Crop Improvement and Seed Technology”
at ICARDA is on-going (FY 2004 – FY 2008)

Dispatching JOCVs

1. Background of the Project

In 2001, Japan International Cooperation Agency (JICA) and the government of the Syrian Arab Republic agreed to organize a training course in the field of

“Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas” in collaboration with the International Center for Agriculture Research in the Dry Areas (ICARDA) under JICA’s Third Country Training Program (TCTP).

2. Project Overview

The purpose of the course was to provide participants from Central Asia, West Asia, and North Africa (the CWANA countries) with necessary practical and theoretical information in the field of water use efficiency for agriculture, to improve their skills and to increase their capacity to support sustainable agricultural production.

A. Outputs of the Training Program

■ Output 1

A total of 69 participants from CWANA countries were trained to increase their capabilities and skills in the field of water management and water use efficiency

■ Output 2

Participants as well as their countries benefit from the theoretical and practical information provided by the course

■ Output 3

Exchanging experiences among participants, lecturers and experts

■ Output 4

JICA and ICARDA obtained background information about the needs of participating countries

B. Inputs

Total cost:(2002-2004): 37,811,445 Yen

Cost per participant: 547,995 Yen

Share of Japanese contribution: 50%

Japanese side:

Long-term Expert: N/A

Short-term Expert: One Japanese expert only in the first year (2002)

Actual cost: 18,905,723 Yen

ICARDA's side:

Actual cost: 18,905,722 Yen

II. Evaluation Team:

Members of Evaluation Team (JICA Syria Office): The study was designed and conducted by:

Dr. Abdel Naser Al Darir , Consultant

Aleppo University – Faculty of Agriculture , Syria

Period of Evaluation: The evaluation mission lasted for 90 days starting on December 22, 2004.

Type of Evaluation: Terminal

III. Results of Evaluation:

III-1. Achievement of the Training Program:

For the organization and implementation of the courses, each party of the three

sides - the government of Japan, the government of the Syrian Arab Republic and ICARDA - took their responsibilities in accordance with the R/D document.

The training provided participants with theoretical and practical frameworks. Different methods of learning were used such as lectures, practices, field trips and presentations.

During three years (a course per year) 69 participants from 21 CWANA countries were trained against 153 applicants. The output of training was achieved over the three years.

III-2. Evaluation Results:

(1) Analysis of the Achievement in Terms of Outputs

The definition of outputs of training program was not properly clear. However, the consultant identified five outputs for the training program. Some outputs as stated in the study, are not measurable due to the fact that they were mostly derived from the objectives stated in the R/D, which is based on qualitative measures.

In general, the program achieved its outputs, the trainees obtained the aimed ability. More than 90% of the participants valued the program as good. The level of knowledge or skills acquired by the participants during the training course was good. Following the course, the ex-participants were able to apply these new techniques, e.g., two of the Egyptian ex-participants reported that they applied the new techniques of water harvesting in the field of their work. Again, some of the Iranian ex-participants applied new techniques of supplemental irrigation.

The training was a good opportunity for exchanging experiences among the

participants and experts. The training program was meaningful in terms of promoting network and cooperation among participating countries.

(2) Relevance

The training program matched the needs of participants, the development policies of the CWANA countries and the cooperation policy between JICA and Syrian government.

The topic of the training program” Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas” reflected a very important issue that is an essential component for sustainable agricultural development. The program was completely relevant to the work of participants in the field of water management.

The program was very successful in providing the participants with a long-term ICARDA’s experience. However, the specific needs of the participating countries were partially successfully covered.

3. Factors promoting Sustainability and Impact

(1) Factors concerning to planning

- The course was including basics of training subjects which can help the trainees to better understanding the objectives of training course
- The relevancy of the course to the real needs in the targeted CWANA countries maximized the effectiveness of the training courses applied
- The materials provided in the course included theoretical and partially practical information that can help the trainees to understand and better apply the information and practical issue in their work (according to the

opinion of 70% of participants)

- The training was conducted in a well qualified and equipped training institution.
- Working hours per day (more than 6 hrs/day) were sufficient

(2) Factors concerning to the implementation process

- Possibility for analyzing some practical problems and visiting some projects and research centers (about 9 trips and field visits per year)
- Exchange experiences among participants and experts
- Experts/ lecturers and instructors had good experiences in training programs (according to the opinion of 86% of participants)
- Developing of a photo album for each course including participants contacts
- The willingness of the participants to attend the course and get benefit from it also promoted the effectiveness of the training program
- Conducting a final course evaluation at the end of each training course and responding to participants recommendations

4. Factors inhibiting Sustainability and Impact

(1) Factors concerning to Planning

- The delay in sending application forms and informing applicants of their acceptance, this resulted in late arrival of some participants (24% of participants didn't receive the information punctually), the reason could be attributed to the authorities of their countries.
- Six of invited CWANA countries had no participants, the reason may be due to that there were no applicants from these countries.

- Despite the total time of the course was long, the time devoted for each subject was limited for each subject 2 - 8 hours. This called that the trainees obtained little information and incomplete about the subject
- Course contents were very intense and had wide range of subjects (more than 16 subjects). This was not enough to cover the whole subjects.
- Participants from the CWANA countries were provided with necessary information in the field of training courses, however, the activity on theoretical information was more than on practical one (according to the opinion of 59% of participants)
- Wide variation of the qualification of participants and their interesting (about 85% from participants are agricultural engineers and the 15% others)
- Program outputs and indicators as stated in R/D and General Information (G.I.) were generally not clear and not measurable

(2) Factors concerning to the Implementation Process

- The practical part of the program as well as the field visits was not sufficient (the ratio of the practical part and the field visits were less than 30% of the total time of course)
- Practical parts of some subjects were not in relative with the theoretical part, for example soil water plant relations and agro-meteorology
- Some participants did not know even basic English
- The number of participants was too many for the practical part of some subjects (Some participants had to share one PC when other training groups or visitors utilize the computer room. On the other hand, ICARDA regards that each participant was supposed to have an equal opportunity for practical session

since they were assigned one PC.)

5. Conclusion

The level of knowledge or skills acquired by the participants during the training course was good. Program objectives as stated in R/D were general. The topic of the training program reflects a very important issue since water is the major limiting factor for agricultural production in the targeted countries. The training program matched the needs of the participated CWANA countries. The level of the training institution meets the high international standards in term of lectures and management of training programs. In general, the training program achieved its objectives.

6. Recommendations

- General Information brochures (G.I.) should be distributed earlier to the institutions of the invited countries (24% of participants didn't receive the information punctually)
- It is necessary to determine the measurable outputs before the start of program to facilitate the evaluation procedures
- More time should be devoted for the practical work and the analysis of some local problems related to the participating countries (according to the opinion of 66% of participants)
- Strengthen the communication channels with other institutions in the CWANA countries
- According to questionnaires and interviews, the financial fee was not sufficient for eating and other daily requirements and per diem should be increased to 16-20 US\$/day (according to the opinion of 72% of participants)
- Extend the age of acceptance for the applicants up to 40 years old to increase the

number of applicants in some countries , because many CWANA countries (e.g., Afghanistan, Uzbekistan, Egypt, ...) sent trainees aged older than 35 years.

- Increase equipment facilities in particular computers to utilize computer training in efficient way.

7. Lessons Learned

- Homogeneity specialism (subject matter specialist) of the target groups should be considered to achieve the best result of training course. The target groups have different background study
- The training course should be specialized in a few subjects (3 – 5 subjects approximately)
- JICA should play an effective role in spreading and disseminating project information for all the targeted countries
- The application forms for participants, detailed course information and the decision of selecting participants should be sent earlier to the participating countries

8. Follow-up Situation

Another cooperation for Iraq agricultural researchers is under preparation. To avoid long and general training programs it is recommended to make new training programs short, may be 3 weeks or less, and specialized ones. Such as:

- Supplemental irrigation
- Water harvesting
- Management of water in irrigated areas
- New irrigation methods and water use efficiency
- Salinity water and irrigation of saline affected soils

Chapter 1

Outline of Evaluation Study

1-1 Objectives of Evaluation Study

Japan International Cooperation Agency (JICA) would like to conduct a terminal evaluation for the course of “Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas” which was implemented by Syrian Government and the International Center for Agriculture Research in the Dry Areas (ICARDA) under JICA’s Third Country Training Program (TCTP) for the years 2002 - 2004.

The objectives of the evaluation study are:

- To measure project relevance and to explain the achievements of the training program.
- To estimate the effectiveness of the training program.
- To evaluate the curriculum and performance of implementing agency
- To assess the impact of the project in term of sustainability
- To utilize the results achieved for improving the planning and management of similar projects in the future

1-2 Members of Evaluation Study Team

The study was designed and conducted by JICA Syria Office and Dr. Abdel Naser Al Darir, Consultant- Aleppo University – Faculty of Agriculture, Syria.

1-3 Period of Evaluation Study

The evaluation mission lasted for 90 days starting on December 22, 2004.

1-4 Methodology of Evaluation Study

To conduct the evaluation, information was collected from different sources:

- A questionnaire was used as the main instrument for data collection from participants who attended the program (see annex 1).

- Data were also collected from coordinators, supervisors, and instructors by interviewing them, (see annex 2).
- Reviewing different documents related to the training course program, (see annex 3).

Descriptive and qualitative analysis for data collected were used.

1-4-1 Sample and Data Sources

The sample of study covered participants, program leaders, coordinators, supervisors and instructors. The participants involved in the three years of training courses came from central Asia, West Asia and North Africa (the CWANA countries). The program leaders, coordinators and supervisors were from ICARDA, and Egypt.

1-4-2 Instrumentation:

Two types of questionnaires were developed (annex 1 and 2); one for participants and the other for coordinators, instructors and supervisors. The aim was to assess the impact of the training courses on the trainees in relation to learning skills, knowledge, behavior, attitude and experiences in order to be able to utilize them in their back home countries.

All types of data which were collected through interviews, study relevant documents and direct observation were analyzed to assess relevance, effectiveness, efficiency, impact and sustainability. Results of analysis are presented in chapter 4 as well as to annexes (5) and (6).

1-4-3 Limitations of Study

The evaluation mission faced the following constraint:

The communication with trainees was very difficult, 26% of participants reported incorrect address, 32% didn't fill in the questionnaire, which were sent to them. It happened the same with the coordinators, instructors and supervisors, not all of them responded to the sent questionnaires.

However, it is believed that the obtained data are representative and enough to assess the impact of the project and draw a conclusion.

Chapter 2

Outline of the Training Program

2-1 Background of the Training Course

In 2001, Japan International Cooperation Agency (JICA) and the government of the Syrian Arab Republic agreed to organize a training course in the field of “Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas” in collaboration with the International Center for Agriculture Research in the Dry Areas (ICARDA) under JICA’s Third Country Training Program (TCTP).

The aim of the TCTP is to provide training courses tailored to the needs of the targeted countries. The training program for the overseas participants is one of JICA’s fundamental technical cooperation activities for developing countries.

Syria was chosen as the hosting country because of its experience in the field of the water management and water use. Also ICARDA has organized the course because it has a headquarter office in Tel Hadya, Aleppo, Syria.

The purpose of the course was to provide participants from Central Asia, West Asia, and North Africa (the CWANA countries) with necessary practical and theoretical information in the field of water use efficiency for agriculture, to improve their skills and to increase their capacity to support sustainable agricultural production. It is planned that the total number of participants from the invited countries did not exceed 75 individuals throughout its duration (2002 – 2004). However the actual number of trainees was 69 only. Total of 3 training courses were realized during the same period (May – June), with 61 days in the first year (2002) and 39 days in the last two years, with the following objectives:

- To increase the capability and skills of participants in the field of water management and water use efficiency
- To provide participants as well as to their home countries with up-to-date theoretical and practical information related to water management and water use efficiency in agriculture
- To exchange experiences among participants, lecturers and experts
- To enable JICA and ICARDA for obtaining background information about the needs of CWANA countries in relation to water management and water use

efficiency

2-2 Summary of Initial Plan of the Training:

- (1) Course Title: Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas.
- (2) Number of Participants a year: 25 participants / course.
- (3) Duration of each course was planned as 2 months. The actual course periods per each year are shown in the table:

Year	Duration	
FY2002	6/4/2002 – 6/6/2002	61 days
FY 2003	5/5/2003 – 12/6/2003	39 days
FY 2004	3/5/2004 – 10/6/2004	39 days

The list of participants according to their countries is presented in annex 4 .

- (4) Year of Cooperation: FY2002 ~ FY 2004 (3 years).

2-2-1 Requirement for Application:

The applicants are expected to meet the following requirements:

(1) Level of knowledge and/or skills which participants are expected to have	<ul style="list-style-type: none">- B.Sc. in agriculture or a water management – related degree- Good command of English- Good knowledge in computer
(2) Desirable current position/duties	Currently conducting work related to water management for agriculture in his/her country
(3) Years of experience in the sector/issue in question	-- years

(4) Age limit	Under 35 years
(5) Target countries	26 CWANA countries, namely: Algeria, Armenia, Bangladesh, Egypt, Ethiopia, Georgia, Iran, Jordan, Kazakhstan, Kyrgyz, Lebanon, Libya, Mauritania, Morocco, Oman, Pakistan, Palestine, Saudi Arabia, Sudan, Tajikistan, Tunisia, Turkey, Turkmenistan, Uzbekistan, Yemen, and Syria.

2-2-2 Application Procedure:

- A government applying for the course on behalf of its nominee(s) forwarded five copies of the prescribed application form for each nominee to the government of the Syrian Arab Republic, through its diplomatic channels, not later than sixty days before the commencement of the Course.
- The government of the Syrian Arab Republic informed the applying governments, through diplomatic channels, whether or not the applicants have been accepted for the course not later than thirty days before the commencement of the course.

2-2-3 Structure of the Course:

The course comprised in the first year the following modules:

Curriculum

Module	Method of training	Topic	Time Allocation
1.In-country preparation	Each participant will be requested to collect specific information from their own countries to be able to analyze and evaluate their own case studies		
		On-farm water management	2 days
		Use of non-conventional water resources	2 days
		Soil and crop management of cropping systems	3 days
		Watershed management	2 days
		Water harvesting	2 days
		Supplemental irrigation	3 days
		Land & Soil conservation	2 days

2.In-class training	Lectures	Collection and analysis of meteorological data	2 days
		Germplasm improvement	3 days
		Socio-economics	2 days
		Application of GIS	2 days
		Principles and use of models	3 days
		Experimental design and data analysis	2 days
		Scientific writing and presenting	1 day
3.Closely supervised individual or small-group research work	Laboratory, field, and computer work	Directly experience all the recommended techniques for improved water-use efficiency. Data analysis and reporting of research projects	23 days
4.Presentation and Evaluation	Seminar room	All participants are required to present a formal 1-hour seminar with the outcome of their work	6 days
Total			61 days

2-2-4 Revision from the Initial Plan:

Duration of the Course:

The duration of the course changed from 2 months to 39 days.

Target Countries:

- Afghanistan participated in the second course though not included in the R/D.
- Mauritania, Morocco, Saudi Arabia, Armenia, Georgia, and Bangladesh did not participate in the program.

Curriculum:

The major changes in the curriculum are explained in annex (7).

Chapter 3

Achievement of the Training Program

3-1 Implementation Frameworks

The courses were mainly conducted by ICARDA staff supported by one Japanese expert, two international experts and seven Syrian experts.

The training was based to provide participants with theoretical and practical frameworks. Different methods of learning were used such as lectures, practices, field trips and presentations.

For the organization and implementation of the courses, each party of the three sides has taken their responsibilities in accordance with the R/D document. The three sides were the government of Japan, the government of the Syrian Arab Republic and ICARDA.

Measures	Responsible Agency	Implemented	part Implemented
Signing of Record of Discussion (R/D)	Syrian Side, JICA, ICARDA	√	
Set-Up of Organization and Technical Committee	Syrian Side	√	
Preparation and announcement of the General Information brochures (G.I.)	Syrian Side	√	
Submission of bill estimate	Syrian Side	√	
Receipt of application forms	Syrian Side	√	
Notification of Selection of participants through diplomatic channels	Syrian Side	√	
Submission of expert CV(s)	JICA	√	
Remittance of expenses	JICA	√	
Submission of statement of expenditures	Syrian Side	√	
Submission of course report	Syrian Side	√	
Formulate the curriculum	ICARDA	√	
Draft and print the General Information brochures G.I.	ICARDA	√	
Assign an adequate number of staff for the course	ICARDA	√	
Provide training facilities and equipment	ICARDA	√	
Select participants and notify the Syrian	ICARDA	√	

Government and JICA of the results			
Arrange accommodations for participants	ICARDA	√	
Arrange international travel	ICARDA	√	
Arrange domestic study tours	ICARDA	√	
Bear a part of the expenses of the course that is equivalent to 50% for each ICARDA and JICA	ICARDA JICA	√	
Issue certificates for the participants	ICARDA	√	
Submit a course report to the JICA office within 30 days of the termination of the course	ICARDA	√	
Coordinate any matter related to course	ICARDA	√	
Make available for JICA all receipts and other documentary	ICARDA	√	
Submit a statement of expenditures to the JICA office within 30 days of the termination of the course	ICARDA	√	
Assessment the bill of estimate and remit within 30 days after the receipt of the bill of estimate	JICA	√	
Dispatch Japanese short-term expert(s) to give assistance to ICARDA and deliver some lectures*	JICA		√

* JICA dispatch Japanese short-term expert only in the first year

3-2 Achievement in Terms of Activities

	Year 1	Year 2	Year 3	Total
Number of applicants	42	50	61	153
Number of participants	22	24	23	69
Countries participated	16	16	15	21*
Duration (days)	61	39	39	139

* Due to repetition

3-3 Achievement in Terms of Inputs

Total Cost:(2002-2004): 18,815,695 S.P. 37,811,445 Yen

Cost per Participant: 272,692 S.P. 547,995 Yen

Share of Japanese Contribution: 50%

Japanese side:

Short-Term Expert: One Japanese expert only in the first course (2002)

Actual Cost: 18,905,723 Yen

Actual Cost per Participant: 273,998 Yen

Host country side (ICARDA):

	Lecturers	Cost of lecturers		Training expense		Others	
		S.P.	Y	S.P.	Y	S.P.	Y
2002	4	177,650	357,000	5,744,176	11,543,320	130,625	262,500
2003	3	180,262	362,250	5,312,743	10,676,325	130,625	262,500
2004	6	178,695	359,100	5,027,669	10,103,450	130,625	262,500
Total	13	536,607	1,078,350	16,084,588	32,323,095	391,875	787,500

External coordinators and experts:

	External coordinator	Cost of coordinator		External experts	Cost of experts	
		S.P.	Y		S.P.	Y
2002	1	627,000	1,260,000	2	391,875	787,500
2003	-	-	-	2	391,875	787,500
2004	-	-	-	2	391,875	787,500

Total	1	627,000	1,260,000	6	1,175,625	2,362,500
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Current value \$1U S = 52.25 S.P. = 105 Yen

3-4 Achievement in Terms of Outputs:

Outputs of the training were not identified during the design phase of the program. Ultimately, indicators and means of verification were not identified as well. However, the consultant identified the following outputs for the training program to be able to complete the evaluation study.

Output	Achievement degree				Note if any revision in criteria during the course duration
	Year 1	Year 2	Year 3	Average	
1. A total of 69 participants from CWANA countries were trained to increase their capabilities and skills in the field of water management and water use efficiency	2	2	2	2	
2. participants as well as to their countries benefit from the theoretical and practical information provided by the course	2	2	2	2	
3. Exchanging experiences among participants, lecturers and experts	3	3	3	3	
4. JICA and ICARDA obtained background information about the needs of participating countries	3	3	3	3	
5. Overall judgment of outputs	3	3	3	3	

*Achieved: 3, Partly Achieved: 2, Not Achieved: 1

Chapter 4

Evaluation Results

The program was very successful in providing the participants with a long-term ICARDA's experiences. However, the specific needs of the participating countries were partially successfully covered.

ICARDA provided classroom lectures and discussions, transportation, accommodation as well as practical field and laboratory exercises. The lectures were given in English.

4-1 Analysis of Outputs

The outputs of the training program as mentioned previously were not clearly defined in the documents of the carried-out course. Consequently, there are no performance or output indicators. The outputs as stated in the study, are not measurable due to the fact, that they were mostly derived from the objectives stated in the R/D, G.I and training syllabus. It is difficult for the consultant to make decisive decisions on the level of achievement of the program. For these reasons it is worth mentioning that the following analysis is based on the opinion of different stakeholders (coordinators, supervisors, instructors, and trainees) as well as the personal judgment of the consultant.

■ Output 1

A total of 69 participants from CWANA countries were trained to increase their capabilities and skills in the field of water management and water use efficiency

b. Partly Achieved: ICARDA trained only 62 participants from 20 CWANA countries specified in the R/D and additional 7 participants from Afghanistan (a country which was not stated in the agreement, but Afghanistan is one of the CWANA countries). Mauritania, Morocco, Saudi Arabia, Armenia, Georgia and Bangladesh did not participate in this program, the reason may be due to that there were no applicants from these countries.

According to the questionnaires and interviews, most participants mentioned that the knowledge acquired from the training courses were good and have acquired new knowledge to improve their skills in the field of training course. However, The short time devoted for practical work, the different background and

qualifications of participants (85% of participants are agricultural engineers and 15% others), lack of proper and unified instruments to assess different outputs made it difficult to measure the real impact of training course on different participants in relation to knowledge and skills. The willingness of the participants in the courses was one of the promoted factors.

promoting factors:

- Some of the accepted participants are more than 35 years old (about 29% of participants), due to that some countries have not applicants with good experience in the field of water management aged less than 35 years
- Diplomatic communication channels were effective
- Including one developing country (Afghanistan) which was not mentioned in the R/D to help this country to improve the experience level of its participants
- The courses include basics and principles of training subjects which can help the trainees to better understanding the objectives of training course
- Three international experts in addition to the staff from ICARDA. This can increase the profit of training course both theoretically and practically
- The rate of practical application for some subjects was more than 30% of the subject duration (e.g., GIS and meteorological data analysis)
- Working hours per day (more than 6 hrs/day) were sufficient

Impeding factors:

- G.I. and application form were distributed in some targeted countries lately (24% of participants didn't receive the information punctually)
- Six of invited CWANA countries had no participants. This can prevent these countries from the benefit that presented by this course
- The duration of course was long for many participants to (according to the opinion of 34% of them). The reason is may be due to personal reasons
- Not all trainees knew English language sufficiently for understanding the training course

■ Output 2

Participants as well as to their countries benefit from the theoretical and practical information provided by the course

b. Partly Achieved: Based on interviews, the practical and theoretical

information were found to be very important for the participants of targeted countries, because water is considered to be the major limiting factor for agricultural production in the dry areas of Central and West Asia and North Africa (CWANA). The program was designed to present basics and principles in the field of water management and water use efficiency. The time devoted for each subject was very short. The training program did not include topics such as irrigation nets design, use of sewage water, salinity water and irrigation of salt-affected soils. The participants did not apply enough practical examples that can enable them to solve their own problems of their countries.

promoting factors:

- The courses include new information which is useful for participants to refresh their knowledge (according to the opinion of 93% of participants)
- Practical experience for participants in similar dry areas (e.g. water harvesting) can give a good and real example to solve the current existed problems
- Practical application for some subjects was useful (e.g. supplemental irrigation)
- Instructors had good knowledge of the training topics (according to the opinion of 86% of participants). This could make the topics easier to understand

Impeding factors:

- Practical part and field visits were not adequate to understand the theoretical part (the ratio was less than 30% of the total time of course)
- Practical parts of some subjects were not in line with the theoretical part, for example soil water plant relations and agro-meteorology
- Course contents were very intense and had wide range of subjects (more than 16 subjects). This was not enough to cover the whole subjects
- Different backgrounds of participants (85% of participants are agricultural engineers and 15% others). Homogeneity of the target groups should be considered to achieve the best results
- Despite of the total time of the course was long, the time devoted for each subject was limited for each subject 2 - 8 hours. This called that the trainees obtained little information and incomplete about the subject

■ Output 3

Exchanging experiences among participants, lecturers and experts

a. Achieved: The course was a good opportunity for exchanging experiences among the participants and experts. The training program was meaningful in terms of promoting network and cooperation among participating countries.

promoting factors:

- Visit some useful projects and research centers to explain the practical part illustratively (about 9 trips and field visits per year)
- Development of a photo album for participants including contacts and addresses to make the communication (via e-mails or post) among them easier and speedily
- Exchange experiences among participants and experts

■ Output 4

JICA and ICARDA obtained background information about the needs of participating countries

a. Achieved: Most of participants who were working in the field of water management had a very good backgrounds about the major problems suffering in their countries.

promoting factors:

- Analysis of some suffered practical problems in participating countries to determine the solution of these problems
- Interactive communication and experience exchanging among lecturers and participants during implementation of training course could increase the effectiveness of the course
- The final course evaluation that was put at the end of each training course (according to the participants' notices) were very useful for JICA and ICARDA to improve the next courses

■ Overall judgment on the achievement of outputs

In general, the program achieved its outputs. More than 90% of the participants valued the overall course as good according to the result of questionnaires and interviews. The level of knowledge or skills acquired by the participants during the training course was good. The course was very intensive, and the duration

of each subject was short (for each subject 2 – 8 hours only). Program subjects as stated in R/D and G.I. were general. The outputs were not measurable, and the judgment of the level of achievements depended on interviews and consultant's opinion.

4-2 Relevance

4-2-1 Relevance of the Reasons for Setting the Training Program

1. The training program matched the needs of participants, the development policies of the CWANA countries and the cooperation policy between JICA and Syrian government. The topic of the training program "Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas" reflects a very important issue that is an essential component for sustainable agricultural development.

Water is the major limiting factor for agricultural production in the dry areas of Central and West Asia and North Africa (CWANA). Today dry areas face more difficult problems than ever before. Agriculture accounts for around 80% of water consumption in CWANA, however, the rapidly growing population, industrialization, and urbanization will lead to reallocation of water increasingly away from agriculture to other sectors. On the other hand, high population growth rates require a continuous increase in agricultural production.

A limited quantity of water in extended areas coincides with extensive use of marginal natural resources which must be related to possible economic benefits and costs. There are few opportunities for capture of new water resources, and there is a tendency toward non-sustainable over-exploitation of existing sources. Therefore, sustainability of agricultural production depends on conservation and appropriate allocation and management of the scarce water resources in the region. Improving the efficiency of water use through proper crop selection, cropping pattern, cultural practices, and improved management techniques is essential to boost on-farm productivity either under rainfed or irrigated conditions. Another important approach to improving water use efficiency is to link on-farm issues to the field and the watershed levels and applying an integrated management of resources at the watershed level.

Irrigation technology using the techniques of supplemental irrigation and water harvesting can alleviate climatic risk factors in arid and semi-arid regions by increasing choices for soil and crop management which can stabilize crop water

requirements and therefore yields.

2. All the participants of the training courses had a B.Sc. degree in different types of engineering, working in development projects or research stations. The program was completely relevant to their work in the field of water management. Any training can be more effective if it is related to what people do. The training will be the best, when trainees produce outputs that are useful for their countries.

The training program "Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas" responds very well to the situation of targeted countries. Professional development of human resources is a key factor to the success of most strategies adapted by CWANA countries.

3. The purpose of the training program was completely relevant to JICA's policy. The opinion of most participants was the fact that the implementation of the program in Syria (ICARDA) was very appropriate due to the following reasons:

- Syria is located in the dry area and it has great problems related to the water deficit, the management and the efficiency of water use.
- ICARDA has a history of 27 years of extensive experience in conducting training programs for specialists from developing countries. ICARDA has organized the courses in its headquarter at Tel Hadya, Aleppo, Syria.

4. Syria is more convenient place for conducting the training courses rather than Japan, sharing with all CWANA countries their common water and aridity problems. In addition, ICARDA is also convenient because it has good experience in designing of curriculum, administration and management of the training courses. In this regard, the entrustment of the training program was reasonable in terms of improving capacity and ownership of the training institution.

5. ICARDA has developed over the years a wide network with experts and trainees. The training program was meaningful in terms of promoting networking and cooperation among developing countries.

6. Pros of conducting the training course in the host country:

- Some instructors have good experiences in the problems of target countries
- Visiting some projects and research centers (about 9 trips and field visits per year)
- A knowledge of some local problems and its solution

7. Cons of conducting the training course in the host country:

- The application and analysis of some local problems in CWANA countries were not enough for understanding the nature of the problems
- Some of local experts had no updating information about the problems in the other CWANA countries

4-2-2 Appropriateness of Output Setting and Curriculum Design:

■ Output 1

A total of 69 participants from CWANA countries were trained to increase their capabilities and skills in the field of water management and water use efficiency

The training course enabled a wide range of participants from CWANA countries to understand theories in the field of management of water resources and improvement of water use efficiency in the dry areas. However, the training materials covered the relevant subjects to achieve this output.

The duration of the course and the allocated time for every subject were partially enough to cover -in general- related aspects.

The knowledge acquired in the course generally was new but in a moderate level. The duration of each subject was very short and not adequate to cover the full subject. However, the course provided a good and new knowledge to improve the skills of the participants in the field of training course. Again, the short time per subject allocated to practical work, the variation in the background and qualifications of participants of the different target countries, lack of measurable objectives and evaluation tools, make the level of skill improvement to be difficult to assess.

■ Output 2

Participants as well as to their countries benefit from the theoretical and

practical information provided by the course

The course provided a very good opportunity for participating countries to apply new techniques on watershed management and application of GIS. Different training methods were used to improve skills related to laboratory work, field visits and lectures within the allocated time. Following the course, the ex-participants were able to apply these new techniques, e.g., two of the Egyptian ex-participants reported that they applied the new techniques of water harvesting in the field of their work. Again, some of the Iranian ex-participants applied new techniques of supplementary irrigation. However, most of participants reported that they did not have a good opportunity to do enough practical work during the course that enable them to solve their own problems in their countries. Again, most participants reported that more time should be allocated for the practical part of most subjects, especially GIS subject due to its importance.

■ Output 3

Exchanging experiences among participants, lecturers and experts

The course provided a good opportunity for exchanging experiences among the participants themselves on the first side and between them and the lecturers/ experts on the other side. Having that large number of lectures/ experts from different countries provided participants with updated information on water management and water use efficiency.

4-2-3 Appropriateness of Requirement for the Applicants, and Selection

All the participants are required to have a B.Sc. in agriculture or a water management related degree and to be currently conducting work related to water management for agriculture which are very appropriate and relevance to the course content. The participants were required to be in middle age, less than 35 years old, they also required to have a good command of English language. The requirements for application as stated in the R/D are appropriate for the type of course envisaged at the beginning of the program. The information mentioned in the G.I. was sufficient for proper selection of applicants at the invited and hosting countries. The learning objectives and the syllabus of the course were included in the G.I. package to facilitate selection at the invited countries. However, it is noted that there were no participants from some invited

countries recorded in R/D as Mauritania, Morocco, Armenia, Georgia, Bangladesh, and Saudi Arabia. This may be due to the fact that their applicants (if found) failed to meet the requirement related to qualifications.

4-2-4 Overall Judgment on Relevance

The need for continuous communication with different sources of information and experiences was one of the promoting factor for the achievement of this output because the participants need to update their information continuously. A new short specialized course in the future for the same participants is very important as a way of sustainability for the participants by providing them continuous informative support.

4-3 Conclusions

4-3-1 Factors Promoting the Effectiveness of the Training Program

- The relevancy of the course to the real needs in the targeted CWANA countries maximized the effectiveness of the training courses applied.
- The training was conducted in a well qualified and equipped training institution.
- Participants from Central Asia, West Asia, and North Africa (the CWANA countries) were provided with necessary information in the field of training courses, however, the activity on theoretical information was more than on practical one (the ratio of the practical part was less than 30% of the total time of course)
- Experts/ lecturers and instructors had good experiences in training programs (according to the opinion of 86% of participants)
- Analyzing some practical problems and visiting some projects and research centers (about 9 trips and field visits per year)
- The willingness of the participants to attend the course and get benefit from it also promoted the effectiveness of the training program.
- Conducting a final evaluation at the end of each training course and responding to participants recommendations

4-3-2 Factors Inhibiting the Effectiveness of the Training Program

- Program outputs and indicators as stated in R/D and G.I. were generally not clear and not measurable
- The practical part of the program as well as to the field visits were not sufficient (according to the opinion of 59% of participants)
- Course contents were very intense and had wide range of subjects (more than 16 subjects). This was not enough to cover the whole subjects
- In-spite-of the total time of the course was long, the time devoted for each subject was limited for each subject 2 - 8 hours. This called that the trainees obtained little information and incomplete about the subject
- The delay in sending application forms and informing applicants of their acceptance, this resulted in late arrival of some participants (24% of participants didn't receive the information punctually), the reason could be attributed to the authorities of their countries
- Six of invited CWANA countries had no participants, the reason may be due to that there were no applicants from these countries

4-3-3 Conclusion

Most of the participants evaluated that the overall course is good. The level of knowledge or skills acquired by the participants during the training course was good. The course was very intensive, and the duration of each subject was limited. In general, the training program achieved its objectives. The program is considered to be an evidence for the successful cooperation between JICA and CWANA countries. Program objectives as stated in R/D were general.

Chapter 5

Recommendations and Lessons Learned

5-1 Recommendations

5-1-1 Recommendations for Partner Country Side (ICARDA)

Most participants were satisfied with the program (see annex 5). The following recommendations have to be considered by the training institution:

- Disseminating the training program objectives, the participants needs and background information on participating countries to instructors is crucial for adapting the content of training courses to the specific needs of the participants.
- Publish the local evaluation results carried out by ICARDA and make them available to instructors as a feedback on their performances.
- Maintain contacts with trained participants to explore impact of training program on their work.
- More time should be devoted for the practical work and the analysis of some local problems related to the participating countries (according to the opinion of 66% of participants).
- Strengthen the communication channels with other institutions in the CWANA countries.
- Per diem should be increased to 16-20 US\$/ day, because the current amount is not sufficient for eating and other daily requirements (according to the opinion of 72% of participants).
- Extend the age of acceptance for the applicants up to 40 years old to increase the number of applicants, because many CWANA countries (e.g., Afghanistan, Uzbekistan, Egypt, ...) sent trainees aged older than 35 years.
- Increase equipment facilities in particular computers to utilize computer

training in efficient way.

5-1-2 Recommendations for JICA (Necessity for Follow-up Cooperation)

To avoid long and general training programs it is recommended to make new training programs short, may be 3 weeks or less, and specialized ones. Such programs are:

- Supplemental irrigation
- Water harvesting
- Management of water in irrigated areas
- New irrigation methods and water use efficiency
- Salinity water and irrigation of saline affected soils
- GIS and computer use

5-2 Lessons Learned

- Homogeneity specialism (subject matter specialist) of the target groups should be considered to achieve the best result of training course. The target groups have different background study.
- The training course should be specialized in a few subjects (3 – 5 subjects approximately)
- JICA should play an effective role in spreading and disseminating project information for all the targeted countries.
- The application forms for participants, detailed course information and the decision of selecting participants should be sent earlier to the participating countries.

Annexes

Annex (1)

QUESTIONNAIRE for the ICARDA / JICA/ Syrian State

Board of Planning Joint Training Course on

“Management of Water Resources and Improvement of

Water Use Efficiency in the Dry Areas”

ICARDA, Aleppo, Syria

Training Evaluation Form

Dr. Abdul Naser Al Darir
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Tel. : 021 - 5116176
Mobile: 092 - 644940
Fax : 021 – 5119793
E-mail : aldarir@scs-net.org
naserdarir@hotmail.com

Aleppo, December30th 2004

Sir Participant,

The training program attended by you was organized and implemented by Japan International Cooperation Agency (JICA), the Syrian Arab Republic and the International Center for Agriculture Research in Dry Areas (ICARDA) during the period 2002 - 2004 under JICA's Third Country Training Program.

After you have completed your training course on the “Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas”, JICA has chosen me as evaluator for the training courses that you were involved.

According to JICA requirements, a questionnaire (attached) should be filled in to evaluate the impact of your training course.

Your prompt responses is very important for improving the management and the efficiency of the training program. Please consider your responses carefully and answer all questions if this possible and send this questionnaire back to me as soon as possible. My E-mail is:aldarir@scs-net.org

We wish to see you in the next course.

You're sincerely

A.N. Al Darir

Please fill this Questionnaire

Personal Information

Name Title..... Age.....

Education gender M / F

Organization..... Country

Year Attended Current position

Position when attended the course.....

Address:

Office

E-mail Fax No. (.....)

Phone No. (.....)

Home

E-mail Fax No. (.....).....

Phone No. (.....)

Please be as specific as possible when entering the following information:

A. Scientific Items:

1. Did the training course verify the target?

Yes No

When No,

clear:

.....

2. What was the level of the scientific information :

- Very new New Normal Classic

- Very interesting Interesting Not interesting

- High quality Good quality Low quality

3. How much was the amount of agreement between the theoretical session and the experimental part?

Excellent Very Good Good Fair

Justify your answer and write any comment: -if you please-

4. The qualification of the theoretical contents of the training course was:

Excellent Very Good Good Fair

Justify your answer and write any comment: -if you please -

.....
.....

5. How you think about the practical examples in different ecological areas during training course?

Very much Much Suitable Poor

6. The integration of the presentation of scientific lectures was:

Excellent Very Good Good Fair

7. During course did you do any evaluation of some practical examples?

Yes No

When yes, clear:
.....

8. After the training course was finished, Can you lead a project in the field of water management?

Yes No

clear:
.....
.....

9. Did the training course have a positive effect on your workplace

Yes No

If yes, please explain how:

.....

B. The Course

1. The importance of the training course was:

great Very high.....high..... low

Have you a comment:.....

.....

2. The dating of the training course was :

suitable Not suitable

3. The syllabus of scientific items of the training course was :

Logic Not logic.....

Justify your answer and write any comment:

.....

.....

4. The daily schedule of lectures of training course was:

Very intensive Intensive Not intensive

5. The timing of the practical session was:

Long Suitable Short..... Very short.....

6. The training objectives for each topic were clear and sufficient

Yes No

when no, which was(were):

.....

7. The starting and finishing time of each lecture was:

Very punctual Punctual Not Punctual Irregular

8. How much was the time of questions in the end of each session?

Too much..... Enough..... Not enough..... Nothing

9. The training materials that were distributed during the course were:

Sufficient Insufficient Poor

10. How were the scientific visits?

Very interesting..... Interesting Not interesting..... Not useful

11. Which topic(s) was (were) the most useful:

A..... B..... C.....

12. Which topic(s) was (were) not useful:

A..... B..... C.....

C. Instructors:

1. The relation between instructors and participants was:

Excellent Very Good Good Fair

2. What about the level of the instructors experience (presentation , teaching , discussing,...)?

Very high..... High Medium Low

3. During sessions, did the instructors use practical examples?

Yes..... No

4. The answering of instructors about the participant questions was:

In detail..... Decisive..... Limited.....

5. Can the instructors be able to create a positive learning environment?

Excellent Very Good Good Fair

6. The number of instructors for the training course was:

Very high..... High..... Low Very low.....

D. Course organizers:

1. Did you receive the information of the training program before the course is started?

Yes No

2. How do you evaluate the organization of this training course ?

Excellent Very Good Good Fair

3. Approximately, the long of time of this course must be:

Two weeks Four weeks..... Six weeks

More than six weeks (specify)

.....

4. The transportation during the course was:

Excellent Very Good Good Fair

5. The accommodation was:

Very comfortable Comfortable Not comfortable Bad

6. The food (quality and quantity) was:

Excellent Very Good Good Fair

7. The rate of financial fees was:

Too much Much Few..... Very few

8. Approximately, the training course must include :

Less than 10 Between 10 and 20 Between 20 and 30 More than 30
..... (participants)

9. The session rooms and laboratories were:

Excellent Very Good Good Fair

10. During sessions, did the lecturers use audio – visual Instruments

Yes No

E. participants :

1. The choosing of participants must depend upon :

Specializing Scientific degree Practical experiency Others
.....

Clear the answer:

.....
.....

2. Did the training match your needs(scientific and practically) perfectly?

Yes No

3. Did the contents of this training course agree your job:

Yes No

When no, Clear the answer:

.....
.....

4. Are you able to apply what you learned?

Yes No

When no, Justify the answer:

.....

5. The relation between participants during course was:

Excellent Very Good Good Fair

6. Do you recommend your colleagues to attend a similar course?

Yes No

Clear the answer:

.....

7. Do you wish to have another course at a higher level in the same field (as water management)?

Yes No

8. To increase the profit of this course, please write your suggestion (in few words):

.....

.....

.....

.....

.....

Thanks for your patience in filling out this questionnaire.

We hope to have you as a member of the next training course!

Dr. Abdul Naser Al Darir
Consultant

Annex (2)

Training Program on “Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas”

JICA – SYRIAN ARAB REPUBLIC - ICARDA: 2002 - 2004

Target Group: Instructors, Coordinators, and Supervisors

Research Questions:

How can the effectiveness of future training programs, that will be carried-out in Syria under JICA Third Country Training Program, be enhanced?

Theme 1: Relevance of the reasons for setting the training program

- 1) Judging from the development needs and policies of the targeted countries, was the training program necessary?
- 2) Was the training program the best way to transfer appropriate technology?
- 3) Was the condition for conducting training better in the host country than in Japan? If so, why?
- 4) In case of TCTP, designing of curriculum, administration and management of the training course are entrusted and under the responsibility of training institutions in the host country. In this regard, was the entrustment of the training program reasonable in terms of improving capacity and ownership of the training institution?
- 5) Was the training program meaningful in terms of promoting networking and cooperation among developing countries?
- 6) What were the pros/cons of conducting the training course in the host country?

Theme 2: Appropriateness of Output Setting and Curriculum Design

- 1) Did you participate in the instruction of the training program? Please explain.
- 2) What was your role/ input in the program, what experience did you bring to this program?

- 3) What are the expected outputs of the training program?
- 4) Were the quality, quantity and timing appropriate compared to the achieved output?
- 5) Was the setting of output and training components (lecture / practice etc....) appropriate?
- 6) Were there any obstruction factors against training efficiency?

Theme 3: Appropriateness of Requirement for the Applicants, and selection

- 1) How was the efficiency and effectiveness of participants?
- 2) Did the contents of the trainings contribute to improve the capacity of participants for their research work and planning development?

Theme 4: Impact

- 1) Are there any unexpected impact-both good and bad?

Theme 5: Sustainability

- 1) Have the new knowledge and techniques become firmly established as participants' capability?
- 2) What are the promoting/obstruction factors of such sustainability?

Theme 6: Overall Judgment on Relevance

- 1) Did the training program match the needs of the participants?
- 2) Were the target groups selected appropriately?
- 3) To what extent did the implementing agency manage to select trainees who can actively participate and benefit from the training program?

Finally: What recommendations do you have to improve the training program "Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas"(technically and administratively).

Thank you for your Cooperation

Annex (3)

List of Secondary Resources

Document	Date		
	2002	2003	2004
Record of Discussion	√		
List of Participants	√	√	√
G. I.	√	√	√
Application Forms	√	√	√
Records of Selection Process			
Registration Forms			
Syllabus	√	√	√
Program Schedule	√	√	√
Training Materials			√
Evaluation Forms	√	√	√
Technical Report	√	√	√
Financial Report	√	√	√

Annex (4)

List of Participating Countries

Country	Total No. of Participants	2002	2003	2004
Algeria	3	1	1	1
Armenia	0			
Bangladesh	0			
Egypt	7	2	2	3
Ethiopia	4	2	1	1
Georgia	0			
Iran	5	3	1	1
Jordan	3	1	1	1
Kyrgyz	2	1		1
Kazakhstan	3	1	1	1
Lebanon	2		1	1
Libya	1	1		
Mauritania	0			
Morocco	0			
Oman	1	1		
Pakistan	3	1	2	
Palestine	2	1		1
Saudi Arabia	0			
Sudan	3	1	1	1
Syria	8	2	1	5
Tajikistan	2	1	1	
Tunisia	1			1
Turkmenistan	1		1	
Turkey	3		1	2
Uzbekistan	4	1	1	2
Yemen	4	2	1	1
Afghanistan*	7		7	
Total	69	22	24	23
Expected	75	25	25	25

* Afghanistan is not a one of invited countries (in R/D 2002)

Annex (5)

Training Course on
“Management of Water Resources and
Improvement of Water Use Efficiency in the Dry
Areas”

ICARDA / JICA/ Syrian 2002 - 2004

ICARDA, Aleppo, Syria

Results of the Training Evaluation Form

Target group: Participants in the three training courses

2002-2004

Total number of participants: 69

Number of respondents: 28

A. Scientific Items:

Item	Yes	No
Did the training course verify the target?	93%	7%
During course did you do any evaluation of some practical examples?	54%	46%
After the training course was finished, Can you lead a project in the field of water management?	78%	22%
Did the training course have a positive effect on your workplace?	93%	7%

Item	1	2	3	4
What was the level of the scientific information				
1. Very new ; 4. Classic	4%	52%	37%	7%
1. Very interesting ; 3. Not interesting	36%	56%	8%	
1. High quality ; 3. Low quality	26%	74%	--	

Item	1	2	3	4
How much was the amount of agreement between the theoretical session and the experimental part? 1. Excellent ; 4. Fair	7%	37%	52%	4%
The qualification of the theoretical contents of the training course was 1. Excellent ; 4. Fair	19%	61%	16%	4%
How you think about the practical examples in different ecological areas during training course? 1. Very much ; 4. Poor	18%	16%	50%	16%
The integration of the presentation of scientific lectures was 1. Excellent ; 4. Fair	26%	48%	26%	--

- The objectives of course were very wide
- Course content should be more specific
- Increase the applied part of the course such as a field visit
- The amount of practical part should be increased
- The experimental work by participants should be carried-out

B. The Course

Item	1	2
The dating of the training course was 1. Suitable ; 2. Not suitable	100%	--
The syllabus of scientific items of the training course was 1. Logic ; 2. Not logic	100%	--
The training objectives for each topic were clear and sufficient 1. Yes ; 2. No	82%	18%

Item	1	2	3	4
The importance of the training course was 1. Great ; 4. Low	34%	52%	11%	3%
The daily schedule of lectures of training course was 1. Very intensive ; 3. Not intensive	22%	67%	11%	
The timing of the practical session was 1. Long ; 4. Very short	3%	38%	52%	7%
The starting and finishing time of each lecture was 1. Very punctual ; 4. Irregular	22%	74%	4%	--
How much was the time of questions in the end of each session 1. Too much ; 4. Nothing	--	85%	15%	--
The training materials that were distributed during the course were 1. Sufficient ; 3. Poor	70%	30%	--	
How were the scientific visits? 1. Very interesting ; 4. Not useful	37%	56%	7%	--

- A computer should be available for each participant
- New technology was not seen in the farmers
- Some subjects were covered in details, while others were briefly covered
- Some subjects were not understood due to the bad language of some lecturers
- Time of some subjects were too short as GIS, field water management,etc
- Field visits should be more effective

11. Which topic(s) was (were) the most useful:

- A. Water Harvesting
- B. Supplemental Irrigation
- C. Irrigation and Water Management
- D. Socioeconomic

12. Which topic(s) was (were) not useful:

- A. General concepts of gender
- B. Agro Meteorology
- C. Hydrology

C. Instructors:

Item	1	2	3	4
The relation between instructors and participants was 1. Excellent ; 4. Fair	44%	48%	4%	4%
What about the level of the instructors experience (presentation , teaching , discussing,...)? 1. Very high ; 4. Low	27%	59%	10%	4%
The answering of instructors about the participant questions was 1. In detail ; 3. Limited	63%	37%	--	
Can the instructors be able to create a positive learning environment 1. Excellent ; 4. Fair	24%	44%	28%	4%
The number of instructors for the training course was 1. Very high ; 4. Very low	--	76%	24%	--
During sessions, did the instructors use practical examples? 1. Yes ; 2. No	93%	7%		

- Instructors should be able to present some practical examples with real situation from participate countries
- Increase the time of practical application for each subject
- The language of some instructors should be more clear
- More instructors should be from invited countries

D. Course organizers (Facilities):

Item	1	2	3	4
Did you receive the information of the training program before the course is started? 1. Yes ; 2. No	76%	24%		
How do you evaluate the organization of this training course 1. Excellent ; 4. Fair	35%	42%	23%	--
The transportation during the course was 1. Excellent ; 4. Fair	46%	38%	16%	--
The accommodation was 1. Very comfortable ; 4. Bad	21%	67%	8%	4%
The food (quality and quantity) was 1. Excellent ; 4. Fair	24%	32%	36%	8%
The rate of financial fees was 1. Too much ; 4. Very few	--	28%	52%	20%
The session rooms and laboratories were 1. Excellent ; 4. Fair	18%	55%	23%	4%
During sessions, did the lecturers use audio – visual Instruments 1. Yes ; 2. No	85%	15%		

Item	2 weeks	4 weeks	6 weeks	More than 6 weeks
Approximately, the long of time of this course must be	--	12%	54%	34%

Item	> 10	10 - 20	20 - 30	> 30
Approximately, the training course must include	--	58%	42%	--

- Participants should get the information of the training program earlier before the begin of the course to be able to adequately prepare the course
- Accommodation in the guest house was of average level, the guest house needs some improvements
- Meals were good but expensive

- A computer should be available for each participant
- Payment of daily allowance is not sufficient, it must increase to about 20 US\$
- Lecture rooms were continuously changed, some of them were not suitable
- The duration of the new short special course should be not more than 3 weeks
- Training materials should be delivered in the beginning of the course
- The training course must not be included more than 20-25 participants

E. participants :

Item	1	2
Did the training match your needs(scientific and practically) perfectly 1. Yes ; 2. No	69%	31%
Did the contents of this training course agree your job 1. Yes ; 2. No	96%	4%
Are you able to apply what you learned 1. Yes ; 2. No	88%	12%
Do you recommend your colleagues to attend a similar course 1. Yes ; 2. No	100%	--
Do you wish to have another course at a higher level in the same field (as water management)? 1. Yes ; 2. No	100%	--

Item	Specializing	Scientific degree	Practical experience	Others
The choosing of participants must depend upon	60%	17%	17%	6%

- Selected the participants that are working in the same field of the interested objects of training course
- The age of participants must increase up to 40 years
- Some basic criteria for selection of trainees must be implemented
- Short courses in some special topics must be implemented

* What other training courses would you like JICA to offer in the

future:

- Water harvesting
- Supplemental irrigation
- Farm water management
- Modern irrigation systems
- GIS (Geological Information Systems)
- Saline water use and soil salinity
- Water requirements

Annex (6)

Results of Interviews

With Coordinators, Instructors, and Supervisors

- The opinion of most instructors is that the training program matches the needs of participants. The topic of training program "Management of Water Resources and Improvement of Water Use Efficiency in the Dry Areas" reflects a very important issue that is an essential component for sustainable agricultural development. Their opinion was that the program was completely relevant to their work in field of water management. Any training can be more effective if it is related to what people do. The training will be the best when trainees produce outputs that are useful for their countries.
- The training program responds very well to the situation of targeted countries. Professional development of human resources is a key factor to the success of most strategies adapted by CWANA countries.
- The opinion of most instructors was the fact that the implementation of the program in Syria (ICARDA) was very appropriate.
- The purpose of the course is to provide participants from Central Asia, West Asia, and North Africa (the CWANA countries) with necessary practical and theoretical information in the field of water use efficiency for agriculture, and to increase their capability to support sustainable agricultural production. The promotion for the TCTP program was sufficient in terms of improving capacity and ownership of the training.
- Effectiveness could be enhanced if experts' role is expanded to more than delivering lectures such as participating in the planning and evaluation of the program. Instructors confirmed the fact that there were no clear training outputs stated, the design and content of the program were too general.
- There were also no enough experts or instructors from the participated countries. Heterogeneity among participants in terms of qualifications

and interests (agricultural and civil Engineers) affected the overall impact of the training program.

- One of the problems was that some of the participants do not know even basic English.
- The requirements for application as stated in R/D are appropriate for the type of course envisaged at the beginning of the program. The information mentioned in the G.I. is sufficient for proper selection of applicants at the invited and hosting countries. The learning objectives and the syllabus of the course were included in the G.I. package to facilitate selection at the invited country. Also proper application was included to facilitate selection at the hosting country.
- Some selection of applicants was not clear therefore, very limited number of applicants attended from some countries.
- The age of applicants should be extended up to 40 years.
- ICARDA has a history of 27 years of extensive experience in conducting training programs for specialists from developing countries.
- It is recommended from most instructors to continue and develop the program, and to be for a short period, may be about 3 weeks.

Annex (7)

Changes in Course Curriculum over the Program

Duration 2002 - 2004

Topics	No. of working days			
	R/D	2002	2003	2004
Farm water management	2 days	2 days	1 day	1 ½ day
Use of non-conventional water resources	2 days	--	--	½ day
Soil and crop management of cropping systems	2 days	2 days	1 ½ day	1 day
Watershed management	2 days	2 days	1 day	1 day
Water harvesting	2 days	2 days	1 ½ day	1 day
Supplemental irrigation	2 days	2 days	1 day	1 day
Land & Soil conservation	2 days	2 days	1 day	1 day
Collection and analysis of meteorological data	2 days	2 days	1 ½ day	1 ½ day
Germplasm improvement	2 days	2 days	1 day	1 day
Socio-economics	2 days	2 days	½ day	1 day
Application of GIS	2 days	2 days	1 day	1 day
Principles and use of models	2 days	2 days	1 day	1 ½ day
Experimental design and data analysis	2 days	2 days	1 day	1 day
Scientific writing and presenting	1 day	1 day	1 day	1 day
Natural Resources Management	--	--	1 day	½ day
Directly experience all the recommended techniques for improved water-use efficiency. Data analysis and reporting of research projects	17 days	17 days	10 days	10 days
All participants are required to present a formal 1-hour seminar with the outcome of their work	5 days	5 days	5 days	3 days

Calculations based on: 1 working day = 6 hours

Annex (8)

List of Persons Interviewed

Participants:

Mr. Abdul Ghani Khaldi	Syria
Mr. Bassam Oudeh	Syria
Mr. Derar Al-Shabeeb	Syria
Ms. Lawand Hussein	Syria
Dr. Mohamed Khalifa	Syria
Mr. Mohammad Al-Hyek	Syria
Ms. Nisreen Baddour	Syria
Mr. Osama Mourah	Syria
Mr. Ashraf Tubeileh	Palestine
Mr. Ahmed Abbas El Sman	Egypt
Dr. Mahmoud Atef Sayed	Egypt
Ms. Namait AlYousef	Egypt
Dr. Nasr Gameil Ainer	Egypt
Mr. Tarek Ahmed Eid	Egypt
Mr. Ali Reza Tavakoli	Iran
Mr. Azhdar Onnabi Milani	Iran
Mr. Mehdi Panahi	Iran

Japan International Cooperation Agency (JICA):

Mr. Sakhr Mrishi	Programme Officer (Water Resources & Agriculture sectors)
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State planning commission (Syria):

Mr. Bassam Al Sebae	Vice- Rector
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International Center for Agricultural Research in the dry Area (ICARDA):

Dr. Samir El-Sebae	Head, Human Resources Development Unit
Ahmed	
Dr. Theib Oweis	Program Coordinator
Mr. Afif Dakermanji	Training Officer
Dr. Habib Ketata	ICARDA coordinator - Iran

Instructors:

Mr. Aden Aw-hasasn	Economy Researcher
Dr. Adriana Bruggeman	Agricultural Hydrologist
Dr. Ahmad Mazid	Agricultural Economist
Mr. Akhtar Ali	Water and Soil Engineer
Dr. Nasr Gameil Ainer	First Course Coordinator – Egypt
Dr. Theib Oweis	Water Management Specialist
Mr. Walid Abdel Kafi	Instructor, Ministry of irrigation-Syria