

Annex 3-7:

Newsletter “Humat Beia”

3.7.1 Newsletter “Humat Beia” No.1

The Start Of The Project

Dr. Akram Al-Khoury

General Director, General Commission for Environmental Affairs (GEFA)

I am very glad to inform you of the start of JICA's technical cooperation project concerning the capacity development of environmental monitoring and management at Directorates for Environmental Affairs (DFEAs) in Syria. In 1991, Basic Environmental Law (Decree 11) was set, and in 2002 the Environmental Protection Law (No.50) was also issued. At same time, 14 DFEAs have been established by 2004, and one of their functions is to conduct environment monitoring and analysis. However, the capacity of environmental monitoring and management including environmental education is limited at each DFEA. We do hope this situation will be improved through the implementation of the Project.

I would like to congratulate the JICA expert team on the publication of this newsletter. I hope the Project will be an important and effective step in the environmental protection in Syria.

Mr. Yoichi Iwai





Team Leader, Japan International Cooperation Agency (JICA) Expert Team

It is my great pleasure to greet you in the newsletter. We, the JICA expert team, are working in Syria for the Project named as "the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates" based on the Record of Discussion (R/D) between JICA and MOLAE. We are very happy and honored to have an opportunity to participate in this Project and to make a contribution toward the environment monitoring and management in Syria. I hope the Project will be successful in collaboration with Syrian counterparts, and I believe the friendship between Japan and Syria will be promoted through the implementation of the Project.

How to Contact the JICA Expert Team

Office Add.: 2F of GCEA building, Damascus
 Tel/Fax: +963-(0)11-446-4796
 E-mail: semp@scs-net.org

Members of the JICA Expert Team

	Mr. Yoichi Iwai Team Leader/ Environmental Management		Dr. Ryuna Matsue Water Quality Analysis (Basic Analysis)
	Mr. Kzauyuki Sato Environmental Education		Mr. Takahiro Kamishita Coordinator/ Procurement Management
Mr. Shinsuke Sato Water Quality Analysis (Chemical and Biological Analysis)	Mr. Kouji Kimura Water Analysis (Heavy Metal)	Mr. Minoru Hirao Air Quality Analysis	Ms. Hanae Matumoto Data Management

Introduction of The Project

News Items

The Syrian Arab Republic (Syria) has achieved a remarkable industrialization formed by large scale industries since 1980s. However, with this rapid industrialization, an environmental pollution caused by uncontrolled discharge of wastewater, exhausted gas, and dust, has come out in and around the large cities where these industries are located. To cope with the current environmental issues, the Government of Syria (GOS) established the Directorate for Environmental Affairs (DFEA) in each governorate under the General Commission for Environmental Affairs (GCEA), the Ministry of Local Administration and Environment (MOLAE) in 2004. The principal roles of DFEA are set for 1) further enforcement of environmental policies, 2) environmental monitoring, and 3) promotion of environmental awareness in the governorate level. In order to strengthen the capability on environmental monitoring and management of GCEA and each DFEA, the Japanese Government and GOS decided to carry out a technical cooperation type project.

The objectives of the Project are:

- 1) Establishment of the regular environmental monitoring system related to air and water quality by DFEAs and GCEA, and
- 2) Management and usage of the monitoring data for publication and promotion of public awareness on environment.

The equipment and instruments necessary for the implementation of the Project will be provided by JICA. Moreover, 11 training programs will also be implemented. The participating organizations are the JICA Syria Office, the JICA expert team with 8 members, GCEA and 14 DFEAs, working closely with each Governorate, the Scientific and Environmental Research Center (SERC), Ministry of Irrigation, Ministry of Housing and Construction, Ministry of Industry, Ministry of Transport, Ministry of Health, Ministry of Education, environmental NGOs and other organizations. The Project will be completed by December of 2007.

Steering and Technical Committees

The Steering Committee (St/C) and Technical Committee (T/C), chaired by the Minister of MOLAE, have been established to support the Project. The 1st St/C, 2nd St/C and 1st T/C have been held on January 12th and February 23rd 2005, respectively (see photos). In these three committees, the JICA expert team presented the contents of the Project described in the Inception Report (Ic/R) to the St/C and T/C members, and fruitful discussions and exchange of views have been carried out.

Respect Visits

During February 14th to 16th 2005, Mr. Kazuhide Nagasawa, Resident Representative of JICA Syria Office and the JICA expert team visited Aleppo, Idleb, Lattakia, Tartus, Homs and Hama Governorates to present the Project to Governors and DFEAs (see photos).



1st St/C



1st T/C



Aleppo



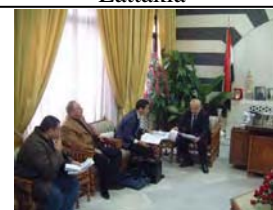
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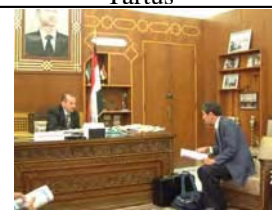
Lattakia



Tartus



Homs



Hama

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3.7.2 Newsletter “Humat Beia” No.2

Humat Beia News Letter

Our target...



I.-1 Events of the Project (August, 2005 – February, 2006)

The 3rd to 6th Technical Committee

The 3rd to 6th technical committee (T/C) was held on the date presented below during the last six months. Key discussion points of each T/C are also described below.

*3rd T/C (4th August, 2005)

- Review of the basic environmental monitoring course
- Discussion on the next training program including a study tour to Egypt
- Budget required for the Project in the next year
- Distribution of news letter "Humat Beia"
- Discussion on the central lab

*4th T/C (22nd August, 2005)

- Agreement on specifications of equipment for air and water quality analysis to be procured in 2005
- Comments and requirements on the equipment provided by JICA

*5th T/C (18th September, 2005)

- Review of the project activities up to September 2005
- Explanation of the Progress Report (1)
- Technical proposal of networking system between GCEA and DFEAs
- Next training activities and schedule

*6th T/C (13th December, 2006)

- Training contents and schedule up to March 2006
- Current situation of procurement of air and water quality equipment
- Problems and difficulties on monitoring activities



Chairman (6th T/C)



Attendants (6th T/C)

Study Tour to Egypt (28th August – 1st September)

Eight counterparts from GCEA and 7 DFEAs were dispatched to Egypt from 28th August to 1st September for study tour to the Cairo Central Center (CCC) and Regional Branch Offices (RBOs). CCC and RBOs have been established by the Egyptian Environmental Affairs Agency in 1997. Eight counterparts shared lessons on environmental monitoring with staffs from CCC

and RBOs. This kind of study tour to Egypt will be continued from the next year onward in the project.



Suez RBO



Mansoura RBO

Water Quality Training in 14 DFEAs (15th January – 7th February)

Two- to three-days water quality training was provided to 14 DFEAs from 15th January to 7th February. The training was mainly done by three lectures, and simultaneously field training was provided in some DFEAs, Rakka and Deir ez Zor DFEA for example, to confirm the procedures of sampling and analysis.

Main topics of three lectures were 1) principles and troubleshooting of BOD measurement, 2) principles of colorimeter and control of

interferences, and 3) water quality monitoring plan. Especially in the 3rd lecture mentioned above, trainees learnt how to estimate the cost for water quality monitoring, which is essential for the formulation of monitoring plan.



Lecture



Field Training

I.-2 Events of the Project (December, 2005 – February, 2006)

Data management Training in 14 DFEAs (15th January – 7th February)

Round data management training was provided to 14 DFEAs from 15th January to 7th February. In the training, a lecture was targeted on the explanation of quality assurance (QA) and quality control (QC), namely the improvement of data quality, and after the lecture, recorded analysis results were evaluated both on paper (Water Quality Results) and in a computer (Recording Format to be sent to GCEA) especially by checking essential digits and decimal places of recorded data. In the result, two common defects

were revealed among 14 DFEAs as follows, 1) inaccurate essential digits and decimal places of analysis results, and 2) inaccurate decimal places of mean value. Because the recorded data was firstly evaluated by JICA expert this time, all DFEAs need to start the precise data recording from now on.



Introduction of Metal Analysis in Damascus DFEA (19th January)

An introductory lecture about Atomic Absorption Spectrophotometer (AAS) was given to Damascus DFEA on 19th January. In the lecture, the importance of metal measurement was stressed

from the view point of human health, and principles of AAS were explained.



Air Quality Training in 3 DFEAs (22nd January – 9th February)

Air quality training was provided to 3 DFEAs, namely Damascus DFEA, Homs DFEA and Aleppo DFEA. In the training, trainees took mainly 4 lectures as follows; 1) basic knowledge on measuring methods for air pollutants, 2) measuring method for gaseous matters, 3) sampling of suspended particulate matters (SPM), and 4) passive samplers for air pollution monitoring. After the lectures, trainees went outside to install 10 to 50 passive samplers into

sites where they want to monitor the air quality. In Damascus DFEA, for example, passive samplers were installed into sites near small factories and private houses based on the trainees' request. It is expected that results will be reported in the next news letter.



Media Event (29th January)

Media event was held on 29th January in Four Season Hotel. The invited participants are journalists from news paper, radio and TV, environmental NGOs, GCEA and DFEAs. The event was started by an opening statement by Dr. Akram S. Al-Khouri, General Director of GCEA, and then followed by the presentation about this

project by Mr. Yoichi Iwai, team leader. In the latter session of the event, participants watched video concerning Japanese experience about environmental pollution, and Mr. Masafumi Tamura, Japan Overseas cooperation Volunteer (JOCV), introduced his activities related to environmental education in Damascus.

Environmental Education Seminar (2nd February)

Counterparts in charge of public awareness in 14 DFEAs were invited to the environmental education seminar held on 2nd February. The presentation was given by JICA expert on Awareness Survey Manual. This presentation gave an idea about how to make the environmental awareness survey, and some details about survey works such as preparation of

questionnaires, training of the surveyors, data analyses and publication. Then it was followed by the presentation by Dr. Nader

Ghazi, Director of Public Awareness of GCEA, entitled "The importance of measurement and interview in the environmental survey".



II.-1 Introduction of GCEA and DFEAs (No.2)

Hama DFEA “Environmental Inspection”

First – Through Granting Environmental Licenses for:

- Industrial and agricultural establishments:
The establishments are checked and a preliminary approval is given, provided that environmental conditions, which influence the pollution, are fulfilled. Then a period of time is given to fulfill these conditions, the final check on the establishment is made and the approval for investment with environmental conditions is given. The application of the environmental conditions is checked through different checking visits.
- Importing chemical materials:
The industrial establishments and commercial stores are checked to make sure that they apply the environmental conditions for storing and dealing with chemical materials in the stores.

Second – Through participating in joint technical committees with different tasks:

- Committee shall identify suitable locations for dumping sites, which are far from residential areas and water resources, and to be on the opposite direction of the wind.

Third – Through the laboratory work:

The laboratory staff shall inspect the industrial establishments which discharge liquid industrial wastes. They take samples from these wastes, and analyze them to compare with Syrian standards. The wastes are to be discharged into the sewerage network or to the agricultural areas, and the way of using this treated water in irrigation is to be checked.

Fourth – Through the work of environmental inspection branch:

Sweida DFEA

Department Name	Section Name	Number of staff
Financial and Administrative Affairs	a- Worker Affairs	8
	b- Financial Affairs	2
Environmental Monitoring and Inspection	a- EIA	3
	b- License	3
	c- Environmental Monitoring	2
Sources	a- Lands Safety	2
	b- Bio-diversity	2
	c- Air Safety	1
	d- Water Safety	2
	e- Chemical Safety and Wastes	2
	f- Public Awareness	1
Laboratories	a- Water Analysis Laboratory	7
	b- Mobile Laboratory	3

The citizens' complains are checked and suitable environmental conditions are set to ensure the protection of human health and environment, and to decrease environmental pollution.

Fifth – Through joint committees with the intended ones:

The establishments are checked to make sure that they apply the environmental standards to decrease environmental pollution.

Sixth – Through the cooperation between the Health Committee and relevant organizations:

The Health Committee shall check slaughterhouses in the governorate to make sure that they apply the health and environmental standards, and to decrease pollution.

Seventh – Through the reliance of environmental impact assessment studies:

The environmental impact assessment (EIA) which should be submitted to DFEA by the owner of establishment is to be checked. The EIA is to be adopted, approved, contracted and published by the governor.

Addition:

Monitoring the water quality of Orontes river in cooperation and coordination with the Directorate of Water Resources, the sewerage company, Hama city council, the Water Establishment, and Municipality's council the river passes through.



Director, Mr. Jwaied in Hama



Director, Mr. Abed in Sweida



Laboratory Staff

II.-2 Introduction of GCEA and DFEAs (No.2)

Sweida DFEA (continued)

Since 1998, Sweida DFEA has started its works that cover the whole governorate. The DFEA carries out its tasks including the laboratory works that consist of analyzing water bodies within the governorate, such as underground water, dams and industrial waste water in the frame of the environmental monitoring plan made in cooperation with JICA. The JICA provided the required equipment, materials and training courses to qualify our staff to carry out the works in proper and sustainable way, because our laboratory will become professional and approved one. On the other hand, our government supported us and provided each directorate with a car to be used for sampling, mobile lab for air and noise analysis and training courses for our staff to operate this lab.

Damascus DFEA

Most important activities by Damascus DFEA

Damascus DFEA participated in the studies of several environmental projects executed in Damascus such as sewerage system, solid waste management, medical waste incinerators, improving and cleaning the bed of Barada River, treatment plant for waste water resulted from tanneries, network connection between GCEA and Damascus DFEA, establishing central lab in cooperation with JICA, increasing green areas, establishment of environmental and information centre at DFEA entrance, public awareness project through seminars, workshops and exhibitions, establishment of air quality monitoring network and establishment of Environmental Park.

Also, Damascus DFEA is preparing the following future projects such as usage of GIS, shifting all polluting industries outside Damascus to industrial areas, continuing public awareness projects, establishment of Environmental School, air quality monitoring network, environmentally conscious streets, continuation of the preparation of the central lab in cooperation with JICA, encouraging the participation of the private sector to protect the environment, encouraging the eco-

Executive Bureau, headed by the governor, supports our DFEA and facilitates the work of our staff by adopting the DFEA suggestions about environmental, industrial, and agricultural activities, and giving the staff the necessary permission to enter various establishments for monitoring and taking water and air samples to be analyzed and try to find the proper environmental solutions.

It is good to mention here that all DFEA staff work in harmony as one team, cooperating with each other.

We would like to thank JICA and appreciate all its efforts, and we thank Mr. Governor for the support he presents to directorate.

tourism, developing the public transport to reduce the air pollution resulted from transport sector.



Director, Mr. Bassam with Damascus Governor



Deputy Director, Ms. Wadia with Damascus Governor



Environmental Exhibition at the entrance of DFEA



DFEA staff at Flower Exhibition

III. Lessons Learnt

Report on the Study Tour to the Environmental Training Center in Egypt

We visited the Environmental Training Center in Egypt in the period from August 28th to September 1st, 2005. We exchanged information with the Egyptian side and we benefited from the following:

- 1- Seeing advanced lab equipment, which is not available in the labs of DFEAs in Syria, such as:
 - Gas and liquid chromatography
 - Atomic Absorption Spectrophotometer (AAS)
 - Distilled water equipment in reverse osmosis method, in addition to soil analyzing equipment
- 2- Seeing how to prepare a special file for each equipment consisting the followings:
 - SERIAL NO – COD
 - Calibration and repairing the equipment
 - When the training on this equipment was received
 - Who operated the equipment
- 3- Seeing how to prepare a special format for each parameter measured in the lab.

- 4- Dealing and storing chemicals according to health and safety measures.
- 5- The great benefit was seeing the process of environmental inspection on the industrial establishments.
- 6- Being introduced to a treatment facility for lab wastes, which is very important to control pollution.

Suggestions:

- Making training courses on environmental inspection for the staff of DFEAs
- Stressing on QA/QC in labs
- Providing distilled water unit with the required specifications for preparation of standard solutions
- Providing central treatment facility for the wastes resulted from labs of DFEAs.

*Chemist, Sana Mansour
Homs DFEA*

An Example of Analysis Results in Damascus Countryside

Damascus Countryside is distinguished by the huge number of industrial and touristic establishments, which cause enormous environmental pollution, especially the industrial waste water.

On making visits by our lab team to some of these establishments during the last several months, we noticed that the industrial waste water resulted from most factories is directly discharged to agricultural lands or to channels that eventually end at agricultural lands, taking into consideration that this waste water did not receive any kind of treatment, and that the factories we visited have no treatment facility although some of them have septic tanks to be emptied by the municipality later.

Most of the owners of these establishments do not have enough environmental awareness about the damage to environment caused by the pollutants, resulted from their establishments. This issue caused

us a lot of troubles and obstacles and detained them from cooperating with us.

On the other hand, the factories are scattered randomly, which causes us a lot of difficulties in taking samples from one of them since they are all jointly discharging in one sewerage system that ends at agricultural land, so we can not identify which factory is responsible for the pollution.

On carrying out the lab analysis we noticed that the concentrations of the pollutants were higher than the Syrian standards (2752 – 1850).

In the factories of paper processing, chocolate, dairy, ceramic and some of chemical products, such as detergents, glycerin, paint and dyes we found that BOD, COD, Cl, NO₃-N, PO₄, pH, SS, TDS were very high.

The table below shows an example for the results of one of detergent factories in Al Kisweh:

Parameter	pH	TDS	SS	COD	BOD	PO ₄	Cl	NH ₃ -N
Sample result	10.37	2,220	219	4,150	900	178	450	15
Syrian standard	6-9	1,500	50	75	30	20	350	3

*Chief of Lab
Eng. Muna Joma`a*

(Unit: mg/l except for pH)

IV. Letters from Counterparts (No.2)

The prosperity of industry and human beings have caused big harms to environment, therefore appropriate procedures must be taken to avoid further damages and achieve clean environment for us and for our sons in the future.

Developed countries have a role of supporting efforts to control pollutions, one of these countries is Japan - through the Japan International Cooperation Agency (JICA) - depending on their experience in environmental pollution control.

JICA expert team has established the project (Capacity Development of Environmental Monitoring) in DFEAs of the governorates.

A part of this project has been executed by 2005 through provision of laboratory equipments and their requirements besides training courses for laboratory staffs (lectures and field trainings) including the study tour to Egypt for the purpose of getting benefits from Egyptian experience.

The project is continuing by following up trainings in 2006 as well in order to make the staff technically and humanly qualified for environmental monitoring and management, and raise the level of environmental awareness in which GCEA has special interest should be considered as one of basic components in this project.

We hope that this project will achieve its goal, and we are looking forward to other projects. At last but not least, thanks for JICA and GCEA.

Eng. Muna Joma'a
Chief of Lab in Damascus countryside
DFEA



Equipment Confirmation



Equipment Confirmation



Dyeing Factory in
Damascus countryside



Industrial Waste Water in
Damascus countryside



Field Training

“The Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates”

Contact Information:

Office Address: 1st Basement Floor of GCEA building, Damascus
Tel/Fax: +963-(0)11-446-4796
Representative Mobile: 093-725-703 (Mr. Iwai)
E-mail: semp@scs-net.org

Annex 3-7:

Newsletter “Humat Beia”

3.7.3 Newsletter “Humat Beia” No.3

Humat Beia News Letter *special Edition*

Study Tour To Egypt 2006

Our target...



I.-1 Study Tour to Egypt

Background, Objectives, Date and Schedule

1- Background

GCEA has been conducting the Capacity Development of Environmental Monitoring at DFEA through assistance from JICA for establishment of environmental monitoring system in Syria. Since EEAA has established CCC in 1997 and achieved successful results in the same environmental monitoring field, this study tour is planned to learn the output of CCC and to exchange views on environmental monitoring between the staffs of Egyptian side and the counterparts of Syrian side.

2- Objectives

- 1) To learn plans, activities, and outputs of CCC related to environmental monitoring
- 2) To experience an actual implementation of environmental monitoring and inspection
- 3) To participate sampling and laboratory analysis in CCC and RBOs
- 4) To discuss problems and constraints lessons
- 5) To share lessons and to exchange views on environmental monitoring

3- Date:

-From September 9 (Sat) to September 14 (Thr) in 2006

4- Schedule:

The trip Schedule is mentioned below

Date	Activities		Stay
	AM	PM	
1. Sept.9 (Sat)		-move to Cairo (19:00-RB209-21:30...23:00) -23:30 Hotel Check in	Cairo (Flamenco)
2. Sept.10 (Sun)	-08:00 move to JICA, 8:30-9:00 courtesy to Mr. Okamoto -09:00 move to EEAA, 10:00-12:00 courtesy to Dr. Ali Abou Sedra (Head of CDBA) Dr. Mawaheb Abou El Azm (Head of EQS) Ms. Kawsar Hefny (General Director of CCC) - presentation and explanation of environmental monitoring and inspection	-12:00-14:00: explanation at CCC -14:30-18:00: move to Suez (by car) -18:00: Hotel check-in	Suez (Green House Hotel)
2. Sept.11 (Mon)	-08:30-Sues RBO-09:00, -09:00-11:00: explanatory meeting and discussion with staff of Suez RBO	-11:30-15:00: field visit for sampling and inspection with staff of Suez RBO	Suez (Green House Hotel)
3. Sept.12 (Tue)	-09:00-11:00: meeting and discussion with staff of Suez RBO	-11:00-17:00: move to Mansoura (by car) -18:30: Hotel check-in	Mansoura (Ramada Hotel)
4. Sept.13 (Wed)	-08:30-Mansoura RBO-09:00, -09:00-11:00: explanatory meeting and discussion with staff of Mansoura RBO	-11:30-14:00: field visit for inspection with staff of Mansoura RBO -14:30-1730: move to Cairo (by car) -18:00-20:00 Exchange views with JICA REIMP Team at Hotel -20:00-21:30: Reception (inviting Mr. Tanaka JICA Egypt)	Cairo (Flamenco)
5. Sept.14 (Thr)	-09:20-10:00: move to CCC -10:00-11:30: warm-up meeting and discussion with staff of CCC and JICA Expert Team, -11:20-12:20: move to JICA Egypt	-12:20-12:30: report to JICA Egypt (Mr. Okamoto, Resident Representative and Mr. Tanaka), -13:30-18:00: excursion, - move to Damascus (21:00-RB206-22:30)	-

Reports of the participants in the study tour

Full report of the visit by: Eng. Khozama Abo Saab (GCEA):

This tour is a part of training schedule for capacity development of environmental monitoring, which is carried out in cooperation between GCEA and JICA.

Tour objectives:

- * To be acquainted with the Egyptian experience in capacity development of environmental monitoring, management and inspection.
- * Make hand –on training tours with EEAA Staff, and have acquaintance with environmental inspection procedures.
- * Have an idea about Egyptian experience in Lab accreditation and ISO 17025 implementation.
- * Have an idea about accredited environmental standard and specification in Egypt
- * had a look on Egyptian experience in Lab operation and management.
- * Have an acquaintance with RBOs activities of environment protection.
- * Exchange the points of views on environmental monitoring.
- * Discuss the troubles and problems.
- * Activate the future corporation between CCC and GCEA.

Tour period: 5 days

Schedule and activities:

The arrival to Cairo airport was on 10:00 Pm on September 9 (Sat) in 2006.

The first day 10th (Sep):

* Visiting the EEAA in Cairo:

Our Team was received by Dr. Mawaheb Abou El Azam; the General Director of CCC, presentations were made on executed and under executed environmental projects by Some of CCC staff.

We had known about implemented environmental work during previous years as for setting labs for air and water quality, and monitoring station which are automatically connected with operation unit.

We had acquaintance how to set data base, and put general monitoring plan that lead to get an advanced environmental inspection operation.

As for our side we made a presentation about capacity development of environmental monitoring in Syrian governorates, we explained about implemented steps, future plans, and the goals we want to achieve through this tour. We exchanged the points of views about environmental case in Syria and Egypt.



Eng. Khozama Abo Saab

Visitor's names:

Syrian Side:

1- Ms. Kuzama Abo Saab	GCEA
2- Ms. Omaima Younes	DAM DFEA
3- Mr. Ahamad Mo'ala Ahmad	ALP DFEA
4- Mr. Iliia Wasel	ALP DFEA
5- Ms. Itidal Awad	HOM DFEA
6- Ms. Remm Kanber	HAM DFEA
7- Mr. Saher Abdullah	DZR DFEA
8- Mr. Sameer Da'boul	IDL DFEA
9- Ms. Omay'mah Al Sha'ar	SWE DFEA
10- Ms. Rowdaina Al Ali	TRT DFEA
11- Mr. Majed Zaitoun	QNT DFEA

Japanese Side

1- Ms. Yomiko Honda	Project Formulation Advisor
2- Ms. Marah Murad	Program officer
3- Mr. Yoichi Iwai	Chief Advisor of the Project
4- Mr. Mohammad Doubosh	Interpreter



Meeting at EEAA and visiting CCC

After that we went to CCC in EEAA, Dr. Hana Mansour the lab .Chief explained about all existed equipments in water, air, and biological labs; treatment station of liquid analysis wastes; washing unit; and chemicals store .she explained also in details about **ISO17025** application, which is related to lab .accreditation.

She mentioned the importance of outside training that the Egyptian side had received in Japan, and Germany .these courses assist the Egyptian side to train new staffs and to get ISO accreditation certification.

After finishing the visit to CCC, we went to JICA office in Cairo, we explained about the implemented project in Syria, and the goal of tour to Egypt.

Then we moved to Suez governorate.

Second day 11th (Sun):

We went to Suze RBO which supervises three governorates.

Dr. Layla Alkouri, the manager of the Suez branch received us, gave us an idea about accredited environmental system and the emergency plan regarded to sea pollution.

Then the staff explained to us about the theoretical and legal side of environmental inspection and monitoring; and the importance of environmental Awareness.

Then our side explained about our project in Syria, and our desire to learn from Egyptian experience.

Then we made a practical application of environmental inspection and wrote a inspection record in waste water treatment station (water quality), and Cement plant (Air quality)



Training for Air Quality and water Quality in Suez RBO

Then we took samples from treatment station and that's for field and lab measurement, then we discussed the report in details.

As for Cement plant, all measurements were carried out in the plant, and then inspection record was done and disused by accredited inspectors.

We had an idea about environmental inspectors ID cards and applied safety work procedures.

Third day 12th (Mon):

Environmental inspection record and environmental, legal aspects were reviewed .Our team asked their own questions related to environmental and management inspection.

Then we went on a tour to the lab, we had a look on imported equipments; treatment station of liquid analysis; air equipments, mobile lab, chemical storage; lab management; and ISO 9001 measures.

Then we had an idea about adopted measures in order to get **ISO(17025)** related to labs accreditation , awareness measures ;and had an idea about the best method to deal with industrialists .

In Suez branch we learnt about measurement equipment of petroleum oil

Imprint belonged to sea shore pollution and its data.



Reagents Storage at Suez RBO

The Egyptian staff explained to our team a plan which is suitable for private conditions of industrialists; financed by environmental support that supports the cleanest production.

The Egyptian side provided us a copy of inspection record and many brochures.

That we will submit to awareness directorate in GCEA.

After visiting Suez branch we moved to Mansoura.

Forth day 13th (Tues):

Visiting Mansoura RBO :

The visit was similar to Suez branch, we toured in lab, had an idea about branch work and its future plans, then we made environmental inspection measurement of heating generation station, we had a look on the establishment ; treatment station of sewerage ,industrial waste ,and monitoring station of air pollutant .

After visiting Mansoura branch, we moved to Cairo.

Meeting was held with JICA expert team in charge of current project in Cairo,

The team explained about the project and the current stage, and we did the same.

Then we discussed with Mr. Iwai about the possibility to raise our capacity through outside training since the Egyptian side had got such training.



Mansoura Laboratory and Air Monitoring Stations



Meeting with JICA Expert Team REIMP

Fifth day 14th (thru):

We visited EEAA; we thanked their great response .we told them about our visit to Suez and Mansoura RBO. We had questions and notes related to inspection record, lab work, the branches connecting method with EEAA and an instant monitoring operation of plants .most of our question were answered.

Then we visited JICA Egypt and reported to them about the study tour and our proposals for such visits.

The Egyptian side provided us with lab analysis manual, which we will submit to all DFEAs.

Then we moved to Cairo JICA office, we explained about our tour and achieved results and the ambitions we aim to achieve.

Notes:

1-Some mistakes from first tour were managed however, the second tour was short, tiring and the information we had got was not enough as for training side.

2-Canceling the appointed visit to Alexandria BRO prevented us from having an idea about the project, which is specialized in the cleanest production.

3-The Egyptian staff is excellent in scientific experience, comparing to Syrian staff since the Egyptian side attended specialized outside courses in Japan and other countries ,in addition to the trainees are with direct contact with experts,

(I don't think the Syrian staff is less qualified than Egyptian staff to get such courses.)

4-Existing the accredited central lab (got ISO 17025), which is technically and administratively belonged to EEAA in Cairo, that made it easy to apply the environmental inspection law.

5-There is a proper plan for private conditions to deal with industrialists that oblige them (after several contraventions) to apply new techniques which don't pollute the environment, this plan supports the industrialists by giving them loans financed by environmental support fund in cooperation with foreign agencies .

According to Egyptian statistics, the plants which pollute the Nile bed reduced

From **116** plants in 2003 to **16** plants in 2006.

6- Existence of a monitoring station of pollutants in factories which are instantly connected to monitoring and operation room in EEAA, so that leads to activate the environmental law.

7-There is an integrated lab work since the lab staff who is responsible for

Water quality, he is also capable to do air quality, which means the lab staff is well trained in both analyses.

8-There is a program for lab work development monitoring in Governorates by branches, as for branches they are supervised by EEAA in Cairo



Meeting with JICA Egypt and CCC

Recommendation

1- Continuation of study tour for lab staff, since we got acquaintance with Egyptian experience in environmental monitoring field, and made environmental inspection in details.

2-There is a need to get outside specialized training in lab work; environmental inspection and management to improve the lab staff level. JICA promised to increase trainee's number, and make training on different analyses.

3-Developing the staff training system, and looking for another agencies and financer for such specialized courses.

4- Establishing an environmental council office in Syria and Egypt, for similar pollution cases and emergency in Syria and Egypt .and putting this office within predicted alarm system in cooperation with JICA office in Syria and Egypt.

5- Start to apply ISO17025 procedures until getting accredited reference lab so it is easy to apply environmental inspection procedures and monitoring plan and support lab work in the governorates. In order to get this certificate it required a steady administrative system according to existed structure and that needs concentrated specialized practical courses.

6- Ask lab to continue chemical and reagents inventory and store them in regular way.

7-put a plan for lab work monitoring in governorates according to environmental condition for each governorate by lab directorate in GCEA.



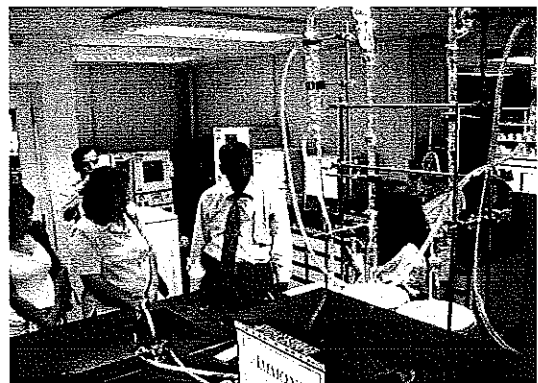
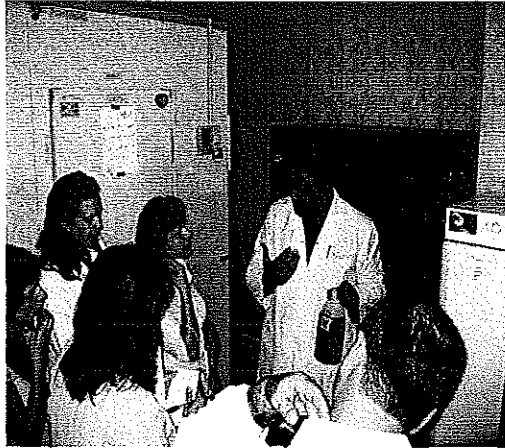
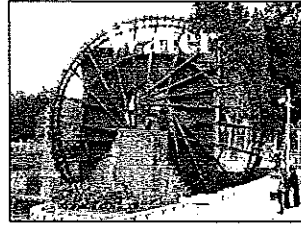
Participants in the study tour 2006

Annex 3-7:

Newsletter “Humat Beia”

3.7.4 Newsletter “Humat Beia” No.4

Humat Beia News Letter *special Edition*



Study Tour to Egypt 2005
Reports of the Participants

Study Tour to EEAA in Egypt in 2005

1. Recipient Agency

- Egyptian Environmental Affairs Agency (EEAA), the Arab Republic of Egypt
- Dr. Ali Abou Sedera (General Secretary, Manager of Central Dept. for Branches Affaires, CDBA)
- Dr. Mawaheb Abou El Azam (Director of Central Dept. for Quality of Air and Noise in EEAA, General Director of CCC)
- Cairo Central Center (CCC)
- 3 Regional Branch Offices (RBO: Greater Cairo, Mansoura, and Suez)

2. Visitors

- General Commission for Environmental Affairs (GCEA), M. of Local Administration and Environment (MOLAE), the Syrian Arab Republic
 - Ms. Fathia Mohammad (Chief of the Project, Directorate of Laboratory, GCEA)
- Directorate for Environmental Affairs (DFEA) in Governorate
 - Ms. Shams Aljasim (Director, DFEA in Rakka)
 - Ms. Sanaa Al Mansour (Staff, DFEA in Homs)
 - Mr. Nawaf Othman (Lab. Chief, DFEA in Hasakeh)
 - Mr. Mohammad Hariri (Lab. Chief, DFEA in Dara'a)
 - Mr. Senan Deeb (Staff, DFEA in Lattakia)
 - Mr. Khaled Kasem (Lab. Chief, DFEA in Damascus)
 - Ms. Mouna Aljumaa (Lab. Chief, DFEA in Damascus Countryside)
- JICA
 - Mr. Yoichi Iwai (Chief Advisor of the Project)
 - Mr. Mohammad Al Doubosh (Interpreter: Arabic-English)

3. Background

GCEA has been conducting the Capacity Development of Environmental Monitoring at DFEA through assistance from JICA for establishment of environmental monitoring system in Syria. Since EEAA has established CCC in 1997 and achieved successful results in the same environmental monitoring field, this study tour is planned to learn the output of CCC and to exchange views on environmental monitoring between the staffs of Egyptian side and the counterparts of Syrian side.

4. Objectives

- 1) to learn plans, activities, and outputs of CCC related to environmental monitoring
- 2) to experience an actual implementation of environmental monitoring and inspection
- 3) to participate sampling and laboratory analysis in CCC and RBOs
- 4) to discuss problems and constraints lessons
- 5) to share lessons and to exchange views on environmental monitoring

5. Date and Schedule

- From August 28 (Sun) to September 1 (Thr) in 2005
- Schedule (See attachment-1)

6. Agenda and Key Items for Discussion and Exchange Views with the Staff of Egyptian Government

During this study tour, two regular meetings will be held with EEAA, CCC, and GCRBO namely 1) the orientating meeting at EEAA on Aug.28 and 2) the discussion meeting at CCC on Aug.31. The proposed agenda is attached in Attachement-2 and 3, and key discussion items are as follows:

- 1) Capacity Development and Capability of Frontline Staff of CCC and GCRBO
- 2) Training Program and its Plan
- 3) Operation and Maintenance (O/M) of Laboratories and Constraints (inc. QA/QC)
- 4) Data Management Conditions
- 5) Communication among CCC and RBOs
- 6) Dealing with Complaints from Citizens
- 7) Activities and Difficulties related to Inspection of Pollution Sources
- 8) Public Awareness and Environmental Education
- 9) Activities of NGOs in Environment
- 10) Annual Budget Preparation for Environmental Monitoring
- 11) Environmental Management and Monitoring Plan Formulation
- 12) Lessons learnt from JICA Environmental Monitoring Training Center Project
- 13) Further Collaboration between CCC in Egypt and GCEA in Syria

7. References

The Egyptian Government is kindly requested to provide the documents, reports, and references to the Syrian side especially concerning to the following items both in English and Arabic if possible.

- 1) Environmental Laws and Regulations
- 2) Rules and Regulations related to Inspection
- 3) Institutional and Financial Conditions of the Environmental Monitoring System
- 4) Staff, Equipment, O/M of Laboratory, Standard Operation Manual (SOP), QA/QC
- 5) Training System for the Frontline Staff
- 6) Monitoring Data and Results
- 7) Annual and/or Periodic Publications

Attachement-1 Schedule for the Study Tour to Egypt

Date	Activities		Stay
	AM	PM	
1. Aug.28 (Sun)	-move to Cairo (08:00-RB201-09:30... 10:30) -11:30-12:00: report to JICA Egypt (Resident Representative) -13:00-14:00: courtesy all and orienting meeting (Dr. Muhamed Sayed Khalil: Chief Executive Officer, CDBA, Dr. Ali Abou Sedera: General Secretary, Manager of Central Dept. for ranches Affaires, CDBA), and CCC (Dr. Mawaheb Abou El Azm: General Director) (See attachment-2)	-14:00-16:30: Lab explanation by CCC staff -18:00: move to Hotel	Cairo (Flamenco)
2. Aug. 29 (Mon)	-08:00-move to CCCL-08:30, 08:45-visit CCC (Dr. Mawaheb and others) meeting and discussion with staff of CCC-11:30, -11:40-move to GCRBO-12:20,	-12:30-GCRBO (Director) at Tamouh Giza Governorate, and explanatory meeting and discussion with staff of GCRBO, field reconnaissance in Cairo (air and water quality monitoring stations, major pollution sources)-15:30, -17:00-21:00: move to Suez (by car) -21:00: Hotel check-in	Suez (Green House)
3. Aug.30 (Tue)	-08:00-Suez RBO-08:30, 08:30-Suez RBO, and meeting and discussion with staff-12:30	-12:30- field visit for sampling and inspection with staff of Suez RBO-16:00, -17:00-21:30: move to Mansoura (by car) -21:30: Hotel check-in	Mansoura (Hotel Mansoura)
4. Aug.31 (Wed)	-08:00-Mansoura RBO-08:30,-08:30- Mansoura RBO (MSRRBO) , and meeting and discussion with staff-12:30,	-12:30-15:00: field visit and sampling with staff of MSRRBO -16:00-19:00: move to Cairo (by car) -19:30: Hotel check-in	Cairo (Flamenco)
5. Sep.1 (Thr)	-08:00-move to CCCL-08:30, 08:30-12:00: meeting and discussion with staff of CCC (See attachment-3), 12:00-12:50: move to JICA Egypt	-13:00-14:00: report to JICA Egypt (Resident Representative), 14:00-18:00: excursion, - move to Damascus (21:00-RB206-22:30)	-

note: Aug. 28: DAM 08:00-RB201-09:30 CRO, (or DAM 21:00-MS722-22:30 CRO)
 Sept. 1: CRO 21:00-RB206-22:30 DAM, (or CRO 18:30-MS721-20:00 DAM)
 RB: Syrian Air (Tel: 168), MS: Egyptian Air (Tel: 22-32158, 22-40164)

Attachement-2 Draft Agenda for the Orientating Meeting at EEAA (Aug. 28)

1. Opening and Thanking Remarks ----- 13:00-13:10
(by Dr. Mawaheb, CCC)
2. Presentation of the Capacity Development Project in Syria----- 13:10-13:30
(by the JICA Expert Team and GCEA)
3. Presentation of the Environmental Monitoring System in Egypt----- 13:30-14:10
(by EEAA and CCC)
 - 1) Background and Necessity of Environmental Monitoring System
 - 2) Development Process of Environmental Monitoring System
 - 3) Conditions of Inspection Activities
 - 4) Future Plan of Environmental Monitoring
4. Discussion and Exchange Views----- 14:10-15:00

Attachement-3 Draft Agenda for the Discussion Meeting at CCC (Sept. 1)

1. Opening----- 09:00-09:10
2. Presentation of Actual Situations of the Environmental Monitoring
in CCC ----- 09:10-10:10
(by CCC and GCRBO, items described in Section 6 to be presented)
3. Discussion and Exchange Views concerning to Items above----- 10:10-11:50
4. Summary and Thanking Remarks----- 11:50-11:55
(by GCEA in Syria)
5. Closing----- 11:55-12:00
(by Dr. Mawaheb, CCC)



Ms. Fathia Mohammed (GCEA)

We would like to thank the Japan International Cooperation Agency (JICA) for preparation and arrangement of this study tour. This visit has much importance for the Syrian counterparts because it gave us a chance to have a look on the Egyptian counterpart experience that was more developed than us in this field. We had a chance to discuss several inquiries which were in our minds during the theoretical and field training in Syria and this helped us to put a concrete plan to the future environmental work.

This visit is not an actual training course because training means to adopt knowledge and additional skills. However, it can be classified as an observation tour for the Syrian counterparts to what has been achieved in Egypt for the system and environmental work after several years of practicing of the environmental work, knowledge of difficulties, and how to overcome them. The visit has incentive to us to practice and work for planning our environmental work and system to the best position, and this visit helped us to put the future environmental laboratory work.

On the other hand, we identified the difference of level and type of assistance which the Egyptian side received from JICA. The Egyptian side has been supported more than Syria. It seems that such differences could make us hard to achieve the same level of environmental monitoring in Egypt. In addition, the schedule of the training was very concentrated in a short period, and we lost a lot of time for transportation from one place to another. So, we suggest in the next training courses to visit one place more longer not wasting time for long transportation. It will allow us to learn lessons and collect information more effectively, and give us more benefit from this study tour, though the JICA Expert Team intends to visit many places.

Through the study tour of the Syrian counterparts to Egypt we were trying to apply it like the followings:

- Organization of the laboratory works through the records of the chemical materials, reagents, data records and Environmental reports.
- Utilizing the laboratories in the environmental inspection and benefiting from the mobile laboratories in making visits and sampling tours.
- The Administrative organization to the laboratories and identification of the responsibilities according to the specialization and responsibilities.
- Setting regional or national monitoring system depending on the periodical environmental inspection and periodical monitoring.

Setting a plan to the laboratories that can secure the reagents, items and consumables periodically, maintaining the equipments, capacity development of the staff through specialized training courses in the field of the laboratory work in order to enable them to apply the ISO 17025

With our best regards,



Ms. Shamsa Aljasem (Director of Rakka DFEA)

We visited to the EEAA in Egypt on 28th Aug. 2005 till 1st Sep. 2005 within the Project assisted by JICA. This study tour is a continuation of the training program which was started by JICA in the beginning of the project for the analysis of water and air as a starting point in the field of environmental inspection on the factories and establishments which pollute the environment.

The Syrian side presented a content and progress of the project including environmental strategy of GCEA and DFEAs. We discussed with the staff in CCC specialized for monitoring and inspection about the difficulties we are facing and their difficulties too. This discussion was very useful for us because we still in the beginning and the Egyptian are more developed than us.

At the end of this study tour, we have the following suggestions:

- 1) The study tour was very concentrated in a very short time, so we suggest to extend the time.
- 2) We noticed that the Egyptian staffs were trained in Japan and for long time which helped them for comprehensive understanding for all information and experience. We are not against training in Egypt because it is easier for us to communicate (due to our shortage in English), but we need more time and more than one training course to each trainee.
- 3) There is no way of comparison between the equipment received by the Egyptian side and those which were received by the Syrian side. Taking in consideration that the project is same and the donor is same, the equipment we received give indicator for pollution level.
- 4) The necessity of having a reference central laboratory to supervise the work of branch offices and does not belong to any governorate, and it should be independent like CCC in Egypt.
- 5) The necessity of working from the beginning on applying ISO 17025 is essential, and we should not wait until all staffs are trained and equipment prepared. The job should be organized from the beginning on international technical standards.

At the end, we thank to JICA for all efforts done to us and we hope to fulfill our mandate.



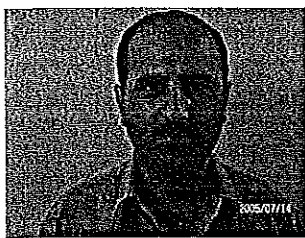
Ms. Sana Mansour (Laboratory Chief, Homs DFEA)

Through several discussions and exchanging point of views between the Syrian side and the Egyptian side, we had benefits from the followings:

- Introduction of accurate and sophisticated equipment which are not in our lab such GC and LC.
- New methods in water distillation in addition to other equipment for biological and soil analysis.
- Introduction to filing system of equipment including serial No. code, calibration and maintenance of equipment, date of training on the equipment, and records who used this equipment.
- How to arrange special file for each ion measured in lab.
- How to deal with chemical materials and how to storage them according to safety and health care.
- The most benefit was in introduction to inspection system for industrial activities and long explanation was done for this matter by EEAA, CCC and Suez RBO staff. It was including how to make inspection and how to write the inspection report.
- Introduction of a treatment plant in lab is very important to reduce the impact to the environment.

From the above mentioned items, we would like to suggest several points related to this study tour:

- The study tour was very short and it was not enough for introduction of the equipment used for monitoring the pollutants of the environment.
- Long distances among the cities which consumed good part of the study tour period made us tired and exhausted.
- The study tour period should be longer to get more practical and theoretical information about the laboratories and their equipment.
- Selection of near and less places because of repeating the information in every center we visited.
- Making special training courses about environmental inspection for the frontline staff of the laboratories of DFEAs at governorates.
- Assurance of QA/QC in our laboratories.
- Providing good distillation unit to prepare standard solutions.
- Providing a central treatment plant to treat all labs discharges resulting from the work in labs of DFEAs.



Mr. Nawaf Outhman (Laboratory Chief, Hasakeh DFEA)

What we got from this study tour.

- ❖ We knew much modern equipment to be provided to our laboratories in Syria in future after we learn skills on our existing equipment.
- ❖ We got good information on environmental inspection because we were trained actually on the fertilizer company in Suez and we learned the importance of environmental inspector in the society.
- ❖ Importance of having specialists working at laboratory, we found that most staffs are chemists, while in our laboratories we have various specializations due to less availability of the required staff.
- ❖ Importance of having full time laboratory staff.
- ❖ Necessity of being hardworking and working to develop the work, we noticed that the Egyptian side has developed some equipment due to the necessity of the work.
- ❖ The assurance on the guarantee of the laboratory equipment because some problems might be occurred within the guarantee period to be fixed by the providing company.

Suggestions for next visits.

- ❖ Selecting the visiting sites near to each other to use the consumed time in traveling from a place to other.
- ❖ Selection of new transport bus not old one as we had. It was broken more than one time and we wasted a long time.
- ❖ Extending a period of the visit to receive information more efficiently because the information we received were highly concentrated all day.
- ❖ Every member has to bring with him flash memory to copy the computer files by the Egyptian side.



Mr. Mohamed Al-harriri (Laboratory Chief, Dar'a DFEA)

Notes:

With our full appreciation for the efforts of the person who arranged the training schedule of the study tour. It was necessary to visit different environment, but we would like to mention the following notes:

- 1) Very long distances for moving site to site.
- 2) The schedule was concentrated and the period was very short.
- 3) Some questions and inquiries we did not find solutions (such as olive extracting plants, car washing garages).
- 4) The Egyptian trainers did not take care about the time; we always arrive and wait them in their offices.

Suggestions

- 1) Increasing the number of training courses and exchanging expertise.
- 2) Holding a training course about the application of ISO system.
- 3) Asking MOLAE for activation of environmental law and adoption of justice police.
- 4) Providing equipment and necessary tools and especially treatment facilities of the wastewater of lab, a refrigerator to keep samples, sterilization equipment, and other required equipment.
- 5) Asking MOLAE to activate the role of environmental inspector and holding more training courses regarding this field.

With my full respect,



Mr. Sinan Deeb (Lattakia DFEA)

We discussed with the staff in CCC focusing on the following matters.

- 1- The study tour was useful from the point of looking equipment and how they operate.
- 2- The mechanism of pollutants monitoring and ways of sampling.
- 3- Using the Egyptian expertise in organizing records and keeping chemical materials.
- 4- The Egyptian staff were trained in a good way by JICA through in country and out country training.
- 5- Each RBO has its own manuals showing a mechanism of the work and some data and records of the factories within each governorate.

It should be mentioned that the training courses should be more concentrated and its number should be increased for the Syrian counterparts to achieve the success and reach to the level of the Egyptian counterparts.

At the end we made a visit to JICA Egypt and each of the Syrian counterparts explained his notes and impressions of the visit to the resident representative.



Mr. Khaled Kasem (Laboratory Chief, Damascus DFEA)

The study tour was very useful and important. The followings are highlights for us:

1. Checking and introduction of the biggest city of "Cairo".
2. Introduction of the work of EEAA, and how violators of the environment are punished in spite of the big number of population which is estimated to be around 75 millions inhabitant.
3. Introduction of the environmental inspection and monitoring system, and how to deal with the citizens and implement the law on violators.
4. Visit big industrial enterprises such as Egyptian Fertilizer Company and the treatment plant of sewerage waste water.
5. Well equipped laboratories assisted by JICA.
6. Discussions with the Egyptian staff about the work system.
7. How to deal with samples and the company owners to reach to the results, and how to select the equipment and maintain them.

The suggestions and lessons of the study tour.

1. Big difference of the equipment from Egypt to Syria comparing in quality, manufacturing agency, scale and range of development.
2. Difference of the contents and levels assisted by JICA.
3. Miss planning and organization of a schedule of the study tour causing long moving time.
4. No enough time for rest or even to communicate with the Egyptian citizens to collect their ideas about implementation of the execution of the environmental law in Egypt due to the compressed schedule and exhausting travel.
5. The way of JICA Expert Team in dealing with the study tour in Egypt was a little bit tough. It seems to compel us personnel and public responsibility.
6. Great difference of qualifications of the staff.
7. The Egyptian staff were qualified and trained in Japan 2-4 months at least while the Syrian counterparts are going to be trained in Egypt for five days only and it is not reasonable and fair.

At last, I would like to thank JICA for the effort and support either for Syria and Egypt.

Damascus 4th Sep 2005



Ms. Mona Al-Joma (Laboratory Chief, Damascus Countryside DFEEA)

After our arrival we directly moved from the airport to EEAA in Egypt and we were received by Dr. Mawaheb Abu Elazm, the general director of CCC. She spoke about their experience in the environmental work from the beginning and the grant aid received from JICA such as equipment, training of the staff. Then she spoke about the development occurred during the recent years and the achievements in the field of environment in Egypt especially the central laboratory.

As a result of our interest on environmental inspection, we had a meeting with the chief of the environmental inspection division who explained about this aspect and how to make environmental inspection and how to develop the environmental law.

The general director of Suez RBO presented their activities and achievements referring difficulties to cover a lot of water resources and bodies. Then, the staff explained about environmental inspection and after finishing visited their laboratories and moved for sampling from sewerage treatment plant and the staff explained each step to us.

We visited with Suez RBO to the Egyptian fertilizer company to make a training for environmental inspection (with the necessary data) and I was really attracted the organization in the work of the Suez RBO staff and how easy they convey the information to us.

We discussed with the staff of CCC. It was very useful for us. The most attracted matter is the support given by the ministry of environment to the staff of CCC especially at the beginnings of the work and it was clear the interest of the Egyptian government in environment.

Remarks:

- The training should be concentrated on water quality in the three RBOs which we visited because they did not speak a lot about their experience in this field.
- A lot of books and materials were given to us were very good, we almost collected every thing we need.
- Since we are in the beginning so we should be concentrating about the water quality analysis more.
- The environmental inspection took a major part in our discussions and until now the quality assurance in our results so that it is still early to speak about this matter.

Thanks a lot for JICA Expert Team who gave us the chance to receive new experience.

Study Tour to Egypt 2006
Reports of the Participants

1. Study Tour to EEAA in Egypt in 2006

1. Recipient Agency

- Egyptian Environmental Affaires Agency (EEAA), the Arab Republic of Egypt
- Dr. Ali Abou Sedera (Head of Central Dept. for Branch Affaires in EEAA)
- Dr. Mawaheb Abou El Azam (Head of Environmental Quality Sector in EEAA)
- Ms. Kawsar Hefny (General Director of Cairo Central Center)
- 2 Regional Branch Offices (RBO: Suez and Mansoura)

2. Visitors

- General Commission for Environmental Affaires (GCEA), M. of Local Administration and Environment (MOLAE), the Syrian Arab Republic

1)Ms. Khozama Abo Saab (GCEA)

- Directorate for Environmental Affaires (DFEA) in Governorate

2)Mr. Ahamad Mo'ala Ahmad (Aleppo DFEA in charge for water quality)

3)Mr. Saher Abdullah (Deir ez Zor DFEA in charge for water quality)

4)Ms. Reem Kanbar (Hama DFEA in charge for water quality)

5)Mr. Sameer Da'boul (Idleb DFEA in charge for water quality)

6)Mr. Majed Zaitoun (Quneitra DFEA in charge for water quality)

7)Ms. Omay'mah Al Sha'ar (Sweida DFEA in charge for water quality)

8)Ms. Rowdaina Al Ali (Tartous DFEA in charge for water quality)

9)Ms. Itidal Awad (Homs DFEA in charge for air quality)

10)Ms. Omaima Younes (Damascus DFEA in charge for air quality)

11)Mr. Ilia Wasel (Aleppo DFEA in charge for air quality)

- JICA

Ms. Yumiko Honda (JICA Syria Office)

Ms. Marah Murad (JICA Syria Office)

Mr. Yoichi Iwai (Chief Advisor of the Project)

Mr. Mohammad Doubosh (Interpreter: Arabic-English)

3. Background

GCEA has been conducting the Capacity Development of Environmental Monitoring at DFEA through assistance from JICA for establishment of environmental monitoring system in Syria. Since EEAA has established CCC in 1997 and achieved successful results in the same environmental monitoring field, this study tour is planned to learn the output of CCC and to exchange views on environmental monitoring between the staffs of Egyptian side and the counterparts of Syrian side.

4. Objectives

- 1) to learn plans, activities, and outputs of CCC related to environmental monitoring
- 2) to experience an actual implementation of environmental monitoring and inspection
- 3) to inspect sampling and laboratory analysis in CCC and RBOs
- 4) to discuss problems and constraints lessons
- 5) to share lessons and to exchange views on environmental monitoring

5. Date and Schedule

-From September 9 (Sat) to September 14 (Thr) in 2006

-Schedule (See attachment-1)

6. Agenda and Key Items for Discussion and Exchange Views with the Staff of Egyptian Government

During this study tour, three regular meetings namely 1) the discussion meeting at CCC on September 10, 2) at Suez RBO on September 11, and 3) at Mansoura RBO on September 13 will be held. The proposed agenda is attached in Attachment-2 and 3, and key discussion items are as follows:

- 1) Capacity Development and Capability of Frontline Staff of CCC and RBOs
- 2) Training Program and its Plan
- 3) Operation and Maintenance (O/M) of Laboratories and Constraints (inc. QA/QC)
- 4) Data Management Conditions
- 5) Communication among CCC and RBOs
- 6) Dealing with Complaints from Citizens
- 7) Activities and Difficulties related to Inspection of Pollution Sources
- 8) Public Awareness and Environmental Education
- 9) Activities of NGOs in Environment
- 10) Annual Budget Preparation for Environmental Monitoring
- 11) Environmental Management and Monitoring Plan Formulation
- 12) Lessons learnt from JICA Environmental Monitoring Training Center Project
- 13) Further Collaboration between CCC in Egypt and GCEA in Syria

7. References

The Egyptian Government is kindly requested to provide the documents, reports, and references to the Syrian side especially concerning to the following items both in English and Arabic if possible.

- 1) Environmental Laws and Regulations
- 2) Rules and Regulations related to Inspection
- 3) Institutional and Financial Conditions of the Environmental Monitoring System
- 4) Staff, Equipment, O/M of Laboratory, Standard Operation Manual (SOP), QA/QC
- 5) Training System for the Frontline Staff
- 6) Monitoring Data and Results
- 7) Annual and/or Periodic Publications

Attachement-1 Schedule for the Study Tour to Egypt

Date	Activities		Stay
	AM	PM	
1. Sept.9 (Sat)	-	-move to Cairo (19:00-RB209-21:30...23:00) -23:30: Hotel check in	Cairo (Flamenco)
2. Sept.10 (Sun)	-08:00 move to JICA, 08:30-09:00 courtesy to Mr. Okamoto, -09:00 move to EEAA, 10:00-12:00: courtesy to Dr. Ali Abou Sedera (Head of CDBA), Dr. Mawaheb Abou El Azm (Head of EQS), Ms. Kawser Hefny (General Director of CCC) - presentation and explanation of environmental monitoring and inspection (See attachment-2),	-12:00-14:00: explanation at CCC -14:30-18:00: move to Suez (by car) -18:00: Hotel check-in	Suez (Green House Hotel)
2. Sept.11 (Mon)	-08:30-Sues RBO-09:00, -09:00-11:00: explanatory meeting and discussion with staff of Suez RBO (See attachment-3)	-11:30-15:00: field visit for sampling and inspection with staff of Suez RBO	Suez (Green House Hotel)
3. Sept.12 (Tue)	-09:00-11:00: meeting and discussion with staff of Suez RBO	-11:00-17:00: move to Mansoura (by car) -18:30: Hotel check-in	Mansoura (Ramada Hotel)
4. Sept.13 (Wed)	-08:30-Mansoura RBO-09:00, -09:00-11:00: explanatory meeting and discussion with staff of Mansoura RBO (Same as attachment-3)	-11:30-14:00: field visit for inspection with staff of Mansoura RBO -14:30-17:30: move to Cairo (by car) -17:30: Hotel check-in -18:00-20:00: Exchange views of the JICA REMIP Team at Hotel -20:00-21:30: reception (inviting Mr. Tanaka JICA Egypt)	Cairo (Flamenco)
5. Sept.14 (Thr)	-09:20-10:00: move to CCC -10:00-11:30: wrap-up meeting and discussion with staff of CCC and JICA Expert Team (See attachment-4), -11:30-12:20: move to JICA Egypt	-12:20-13:30: report to JICA Egypt (Mr. Okamoto, Resident Representative and Mr. Tanaka), -13:30-18:00: excursion, - move to Damascus (21:00-RB206-22:30)	-

note: All are not fixed yet. (20 Aug, 2006)
 Sept 9: DAM 19:00-RB209-20:30 CRO, (or DAM 21:00-MS722-22:30 CRO)
 Sept 14: CRO 21:00-RB206-22:30 DAM, (or CRO 18:30-MS721-20:00 DAM)
 RB: Syrian Air (Tel: 168), MS: Egyptian Air (Tel: 22-32158, 22-40164)

Attachement-2 Draft Agenda for the Meeting at EEAA (Sept. 10)

1. Opening and Thanking Remarks ----- 09:00-09:05
(by EEAA and GCEA)
2. Presentation of the Capacity Development Project in Syria----- 09:10-09:30
(by the JICA Expert Team and GCEA in Syria)
3. Presentation of the Environmental Monitoring System in Egypt----- 09:30-10:30
(by EEAA)
 - 1) Background and Necessity of Environmental Monitoring System
 - 2) Development Process of Environmental Monitoring System
 - 3) Conditions of Inspection Activities
 - 4) Future Plan of Environmental Monitoring
4. Discussion and Exchange Views----- 10:30-11:30
5. Explanation and Inspection of CCC Lab.----- 11:30-13:30

Attachement-3 Draft Agenda for the Meeting at Suez and Mansoura RBOs (Sept. 11 and 13)

1. Opening Remarks ----- 08:30-08:35
(by Representative of RBO)
2. Presentation of the Capacity Development Project in Syria----- 08:35-08:50
(by GCEA in Syria)
3. Presentation of the Environmental Monitoring System in Egypt----- 08:50-09:20
(by RBO)
 - 1) Key Environmental Issues and Countermeasure by RBO
 - 2) Situation of Environmental Monitoring System
 - 3) Conditions of Inspection Activities
 - 4) Future Plan of Environmental Monitoring
4. Discussion and Exchange Views----- 09:20-09:50
5. Explanation and Inspection of RBO Lab.----- 09:50-10:30
6. Field Visit----- 11:00-15:00

Attachement-4 Draft Agenda for the Wrap-up Meeting at CCC (Sept. 14)

1. Opening----- 08:30-08:35
2. Presentation of Actual Situations of the Environmental Monitoring
in CCC ----- 08:35-09:10
(by CCC, items described in Section 6 to be presented)
3. Discussion and Exchange Views concerning to Items above----- 09:10-10:30
4. Summary and Thanking Remarks----- 10:30-10:35
(by GCEA in Syria)



Ms .Khozama Abo Saab (Directorate of Laboratories, GCEA)

Report of the Study Tour by Eng. Khozama Abo Saab (GCEA):

This tour is a part of training for capacity development of environmental monitoring, which is carried out in cooperation between GCEA and JICA.

The first day 10th (Sep):

Our team was received by Dr. Mawaheb Abou El Azam; the General Director of CCC. We learned environmental works in EEAA during previous years as for setting labs for air and water quality, automatic monitoring stations, how to set data base, and how to prepare general monitoring plan that lead to get an advanced environmental inspection operation.

We explained about implemented steps, future plans, and the goals we want to achieve through this study tour. We exchanged the points of views about environmental situations and issues in Syria and Egypt. Then, Dr, Hana Mansour the lab chief in CCC explained about equipment in water, air, and biological lab; treatment station of liquid analysis wastes; washing unit; and chemicals storage. She explained also in details about ISO17025 application, which is related to lab accreditation. She mentioned the importance of outside training that the Egyptian side had received in Japan, and Germany. These courses support the Egyptian side to train new staffs and to get ISO accreditation certification.

Second day 11th (Sun):

Dr. Layla Alkouri, the Dorector of the Suez RBO instructed us an idea about accredited environmental system and the emergency plan regarded to sea pollution. Then the staff presented theoretical and legal aspect of environmental inspection and monitoring; and the importance of environmental awareness. We conducted a practical application of environmental inspection and wrote a inspection record in the waste water treatment station (water quality), and the cement plant (air quality).

We took samples from the treatment station and that is for field and lab measurement, then we discussed the report in details. As for the cement plant, all measurements were carried out in the plant, and then inspection record was done and discussed by accredited inspectors. We had an idea about environmental inspectors ID cards and applied safety work procedures.

Third day 12th (Mon):

We were presented the environmental inspection record and environmental, and legal aspects by the Staff

of Suez RBO. Then we had a look on imported equipment; treatment station of liquid analysis; air equipments, mobile lab, chemical storage; lab management; and ISO 9001 measures. We had ideas about adopted measures in order to get ISO (17025) related to lab accreditation, awareness measures, and a method to deal with pollution factories.

Forth day 13th (Tues):

We visited Mansoura RBO receiving information related to branch works and its future plans. Then, we conducted environmental inspection measurement of the heating generation station inspecting treatment station of sewerage, industrial waste, and monitoring station of air pollutant.

After going back to Cairo, a meeting was held with the JICA Expert Team in charge of REMIP. We discussed with the participants of the meeting about the possibility to raise our capacity through outside training since the Egyptian side had got such training.

Fifth day 14th (thru):

We visited EEAA again and we had further discussion related to inspection record, lab work, branch work connecting method with EEAA, and monitoring operation of plants. Then, we visited the JICA Egypt and reported to them about the study tour and our proposals for such visits.

Lessons:

- 1-Some mistakes of the first tour were managed. However, the second tour was short, tiring and the information we had got was not enough as for training.
- 2-Canceling the appointed visit to Alexandria BRO prevented us from having an idea about the project, which is specialized in the cleaner production.
- 3-The Egyptian staff is excellent in scientific experience comparing with Syrian staff since the Egyptian side attended specialized outside courses in Japan and other countries in addition to the trainees are with direct contact with JET. I do not think the Syrian staff is less qualified than Egyptian staff to get such courses.
- 4-Existing the accredited central lab (ISO 17025), which is technically and administratively belonged to EEAA in Cairo, that made it easy to apply the environmental inspection law.
- 5-There is a proper plan to deal with factories that oblige them after several contraventions to apply new techniques preventing pollution This plan supports the factories by giving them loans financed by environmental support fund in cooperation with foreign agencies. According to Egyptian statistics, the factories which pollute the Nile river decreased from 116 in 2003 to 16 in 2006.
- 6- Existence of a monitoring station of pollutants in factories which are instantly connected to monitoring and operation room in EEAA, so that leads to activate the environmental law.
- 7-There is an integrated lab work since the lab staff who is responsible for water quality, he is also capable to do air quality, which means the lab staff is well trained in both analyses.

8-There is a program for lab work development and monitoring in Governorates by RBOs, and RBOs are supervised by EEAA in Cairo.

Recommendation:

- 1- Continuation of the study tour for lab staff is important, since we got acquaintance with Egyptian experience in environmental monitoring field, and made environmental inspection in details.
- 2-There is a need to get outside special training in lab work, environmental inspection, and management to improve the lab staff level. JICA promised to increase trainees number, and make training on different analyses.
- 3- Developing staff training system, and looking for another agencies and financer for such special courses.
- 4- Establishing an environmental council office in Syria and Egypt for similar pollution cases and emergency in Syria and Egypt, and putting this office within predicted alarm system in cooperation with JICA office in Syria and Egypt.
- 5- Start to apply ISO17025 procedures until getting accredited reference lab, so it is easy to apply environmental inspection procedures and monitoring plan, and to support lab work in the governorates. In order to get this certificate, it requires a steady administrative system according to existed structure and that needs concentrated specialized practical courses.
- 6- Ask lab to continue chemical and reagent inventory, and store them in regular way.
- 7-Put a plan for lab work monitoring in governorates according to environmental condition for each governorate by lab directorate in GCEA.

Through the observation of the Egyptian experience in the field of laboratories, we know mechanism of the application of the ISO 17025 related to the Authorized laboratories and the required steps to access to it.

- Some special instructions were brought related to the laboratory work in order to be applied.
- We get good experience for the mechanism and the way in communicating and dealing with the industrial activities.
- Some special lectures related to the Environmental Administration and how to connect with the laboratory works were brought in order to be applied.
- Introduction of the Environmental inspection in a way that can be applied in our laboratories.

Introduction to some monitoring stations existed in the factories, checking its components and how to connect it to the laboratory.

Thank you

Reports, Proposals, and Comments of the Counterparts



**Mr. Ahmad Mo`ala Ahmad
(Laboratory Chief, Aleppo DFEA)
(water quality trainee)**



**Mr. Ilia Wasel
(Aleppo DFEA)
(Air quality trainee)**

- 1) Holding more specialized training in the field of air quality and water quality in Egypt.
- 2) The study tour period should be longer.
- 3) Holding training courses in the environmental inspection.
- 4) Connecting the activities of the environmental inspection with the laboratory work through using the Egyptian experience.
- 5) Holding special training courses for the air quality monitoring stations.



**Mr. Saher Abdulah (Laboratory Chief, Deir Ezzor DFEA)
(Water quality trainee)**

- 1) The study tour period was short and all information does not match the period.
- 2) Traveling between the Egyptian Governorates is long and hard.
- 3) Using the Egyptian experience in the field of environmental monitoring, experience and management.
- 4) acquainted with the Egyptian experience in the field of the lab accreditation and application of ISO 17025 systems.
- 5) Acquainted with the adopted Egyptian environmental standards.
- 6) Acquainted with the Egyptian experience in the field of laboratory operation and maintenance.



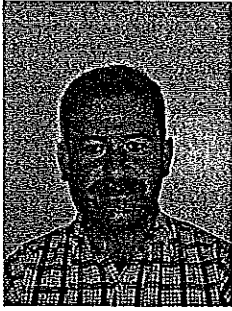
**Ms. Reem Kanbar (Laboratory Chief, Hama DFEA)
(Water quality trainee)**

- 1) Holding specialized out country training courses.
- 2) Prolonging the period of such training courses.
- 3) Continues connection with EEAA within a regional action plan.



**Mr. Sameer Da 'boul (Laboratory Chief, Idlib DFEA)
(Water quality trainee)**

- 1) EEAA has formulated noticeable increase in the field of the environmental management in Egypt.
- 2) Emphasizing on the importance and usefulness of such study tour which included site visits, lectures, and discussions.
- 3) The Syrian side has acquired a lot of knowledge about the environmental management especially environmental monitoring and inspection.
- 4) It provide a way of laboratory management showing clear vision for future environmental management in general, and laboratory management particularly.



**Mr. Majed Zaitoun (Laboratory Chief, Qunitera DFEA)
(Water quality trainee)**

- 1) The study tour period was very short and huge volume of information received comparing with the short period of the course.
- 2) Benefiting the Egyptian experience in the field of environmental monitoring and inspection.
- 3) Being acquainted with the Egyptian experience in the field of applying ISO 17025 for the laboratory accreditation.
- 4) Cooperation of the Egyptian side was highly appreciated.
- 5) Increasing the period of the similar study tour in future.
- 6) Increasing number of study tour to advanced countries in the field of environmental monitoring.
- 7) Activation of the future cooperation among all countries especially Egypt, because it needs mutual efforts.
- 8) Activation of the Environmental Law and identification of the application period similar to Egypt.



**Ms. Omay'mah Al'Alsha'ar (Laboratory Chief, Sewida DFEA)
(Water quality trainee)**

- 1) The Syrian side has acquainted with the Egyptian experience on site and benefited from efficiently especially in the field of the Environmental Inspection.
- 2) Hold more advanced training courses.



**Ms. Rowdaina Al `Ali (Laboratory Chief, Tartus DFEA)
(Water quality trainee)**

- 1) Development of the environmental monitoring aspect to include the environmental inspection.
- 2) Holding out country training courses to observe the advanced experiences in the environmental fields.
- 3) After being acquainted with the ISO 17025 system for the accreditation of the laboratories, we hope to apply this system for our laboratories.



**Ms. Itidal Awad (Homs DFEA)
(Air Quality Trainee)**

- 1) Training courses should be held for the frontline staff of the DFEAs at EEAA about the Environmental Inspection.
- 2) The period of the training course should be longer to get more scientific and practical experience.
- 3) Exchanging the expertise with the Egyptian side through activation of the regional training courses.



**Ms. Omaima Younes (Damascus DFEA)
(Air Quality Trainee)**

- 1) Increasing the number of the Syrian counterparts to be trained at EEAA.
- 2) Finding regional emergency unit for the cases of the Environmental pollution.
- 3) Increasing the training period to benefit from the Egyptian experience

Thank you

Water Quality Analysis and Monitoring Training in EEAA

1. Recipient Agency: Egyptian Environmental Affairs Agency (EEAA), the Arab Republic of Egypt
 - Dr. Mawaheb Abou El Azam (Head of Environmental Quality Sector in EEAA)
 - Dr. Kawsar Hefny (General Director of Cairo Central Center)
 - Dr. Hanaa Sheltawy (Researcher, Cairo Central Center)

2. Trainee

- Directorate for Environmental Affairs (DFEA) in Damascus Governorate, M. of Local Administration and Environment (MOLAE), the Syrian Arab Republic
- Ms. Riem Sadr Edin (Damascus DFEA in charge for chemical and biological water quality)

3. Background

GCEA has been conducting the Capacity Development of Environmental Monitoring at DFEA through assistance from JICA for establishment of environmental monitoring system in Syria. Since EEAA has established CCC in 1997 and achieved successful results in the same environmental monitoring field, this training is planned to learn an actual water quality analysis and monitoring methods working with the staff of CCC.

4. Objectives

- 1) to learn practical methods of water quality analysis and environmental monitoring, especially for the following parameters of chemical and biological analysis

No	Parameter	Method	Equipment
1	SS	Filtrate weight	Vacuum filtration unit, etc.
2	CODcr	Potassium dichromate	Potassium dichromate, etc.
3	NO3	Ion select electrode (UV)	Ion select electrode
4	PO4-P	Spectral photometric (UV)	UV/ VIS spectrophotometer
5	Cl	Ion select electrode (Titration)	Ion select electrode
6	NH3-N	Spectral photometric	UV/ VIS spectrophotometer
7	Oil and Grease	Solvent extraction/ IR absorptiometry	Oil content meter
8	Settleable Solid	Filtrate weight	Vacuum filtration unit, etc.
9	Fluorides	Ion select electrode	Ion select electrode
10	Sulfide-S	Ion select electrode (Iodmetry)	Ion select electrode
11	Surfactants	Spectral photometric	UV/ VIS spectrophotometer
12	Total Colony Group	Colony counting	Colony counter
13	CN	Ion select electrode (UV)	Ion select electrode

- 2) to learn how to cope with SOP and O/M of equipment and reagents, and waste water treatment
- 3) to know a way of data management and recording, interpretation, report preparation, and plans related to environmental monitoring through the current system of CCC
- 4) to experience an actual implementation of environmental monitoring and inspection
- 5) to discuss problems, constraints, and lessons of environmental management and monitoring
- 6) to share lessons and to exchange views on environmental monitoring

5. Date and Schedule: From Nov. 18 (Sat) to Dec. 14 (Thr) in 2006: 27 days, (See attachment-5)

6. Remarks

The EEAA is kindly requested to provide technical training in laboratory and field to meet the objectives mentioned in 4. The JICA Project will cover the following expenses.

- 1) Accommodation and travel expenses of the trainee
- 2) Cost for reagents to be used for training (to provide equivalent amount)
- 3) Procurement of relevant books and reports
- 4) Copy fee for training materials

Attachment	Training Schedule of Water Quality Analysis and Monitoring						
						<i>revised 15 Nov, 2006</i>	
Trainees	Ms. Riem Sadr Edin						
Period	18 November 2006-14 December 2006						
Date	Contents			Venue	Trainer in charge	Transp or tat'n car from	Accom mod'n Cairo
1 18-Nov-06 Sat	-move to Cairo (RB209 19:00 at Cairo AP: Iwai), check in Flamenco Hotel			-	Iwai	-	Cairo
2 19-Nov-06 Sun	-08:00: hotel, -08:30: REMIP, -09:00: orientation by Dr. Hanaa, -10:00: courtesy call to EEAA(Dr. Mawaheb, Dr. Kawthar, Ms. Heba), -10:30-14:00: general information of lab orientation, -14:30-16:00: Introduction of REMIP (Inoue, Iwai)			CCC	Dr. Kawthar, Dr. Hanaa, REMIP	-	Cairo
3 20-Nov-06 Mon	-08:00: hotel, -09:00-11:30: general lecture related to environmental monitoring and laws in Egypt, and operation, QA/QC, O/M in CCC, -12:00-15:00: field sampling, storage, analysis preparation			CCC	Dr. Kawthar, Dr. Hanaa, Dr. Mohamed	car	Cairo
4 21-Nov-06 Tue	-08:00: hotel, -09:00-14:00: Phosphate analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Rasha	-	Cairo
5 22-Nov-06 Wed	-08:00: hotel, -09:00-14:00: Chlorides analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Sameh	-	Cairo
6 23-Nov-06 Thr	-08:00: hotel, -09:00-14:00: Ammonia analysis in CCC, -14:00-15:00: preparatory works, 17:00: courtesy visit to JICA Egypt (Ozawa, Komori, Tanaka, Iwai)			CCC	Chem. Labib, Iwai	-	Cairo
7 24-Nov-06 Fri	day off			-	-	-	Cairo
8 25-Nov-06 Sat	day off			-	-	-	Cairo
9 26-Nov-06 Sun	-08:00: hotel, -09:00-14:00: Fluorides analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Labib	-	Cairo
10 27-Nov-06 Mon	-08:00: hotel, -09:00-14:00: Detergents analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Abdallah	-	Cairo
11 28-Nov-06 Tue	-08:00: hotel, -09:00-14:00: Sulphur analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Iman	-	Cairo
12 29-Nov-06 Wed	-08:00: hotel, -09:00-14:00: Cyanide analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Abdallah	-	Cairo
13 30-Nov-06 Thr	-08:00: hotel, -09:00-14:00: COD analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Rasha	-	Cairo
14 1-Dec-06 Fri	day off			-	-	-	Cairo
15 2-Dec-06 Sat	day off			-	-	-	Cairo
16 3-Dec-06 Sun	-08:00: hotel, -09:00-14:00: Bacteriology analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Iman, Abdallah, Sameh	-	Cairo
17 4-Dec-06 Mon	-08:00: hotel, -09:00-14:00: Bacteriology analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Iman, Abdallah, Sameh	-	Cairo
18 5-Dec-06 Tue	-08:00: hotel, -09:00-14:00: Oil & grease analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Yasser	-	Cairo
19 6-Dec-06 Wed	-08:00: hotel, -09:00-14:00: SS analysis in CCC, -14:00-15:00: preparatory works			CCC	Chem. Sameh	-	Cairo
20 7-Dec-06 Thr	-08:00: hotel, -09:00-14:00: Settling rate and Nitrates analysis in CCC, -14:00-15:00: preparatory works			CCC	Dr. Hanaa, Chem. Ahmed	-	Cairo
21 8-Dec-06 Fri	day off			-	-	-	Cairo
22 9-Dec-06 Sat	day off			-	-	-	Cairo
23 10-Dec-06 Sun	-08:00: hotel, -09:00-15:00: Field sampling and measurement in Nile river			CCC	Chem. Aziz	car/boat	Cairo
24 11-Dec-06 Mon	-08:00: hotel, -09:00-15:00: factories inspection visit			CCC/Inspect'n Unit	to be named	car	Cairo
25 12-Dec-06 Tue	-08:00: hotel, -09:00-15:00: factories inspection visit			CCC/Inspect'n Unit	to be named	car	Cairo
26 13-Dec-06 Wed	-08:00: hotel, -09:00-11:30: recording, analysis, and evaluation of data, lab wastewater treatment, ISO system, O/M of lab chemicals and equip, -12:00-15:00: preparation of report and presentation			CCC	Dr. Hanaa, Chem. Aziz, Abdallah	-	Cairo
27 14-Dec-06 Thr	-08:00: check out hotel, -09:00-11:30: presentation and discussion with CCC and REMIP, -14:30: move to airport, 17:30: leave Damascus (17:30-RB204-20:00)			CCC	Dr. Kawthar, Dr. Hanaa, REMIP	car to AP	-



**Ms. Riem Sadr Alden (Laboratory Chief, Damascus DFEA)
Chemical and Biological analysis for water quality trainee)**

Proposals and Recommendations:

To redirect functions of the laboratory and to reorganize staffing for achieving more effective and efficient laboratory works of DFEA based on full understanding of its responsibility.

To allocate clear and concrete roles and mandates to each staff in the laboratory with giving sufficient information and skills related to analysis and equipment.

To operate and maintain all laboratory works by the staff themselves including management of chemical materials and equipment.

Due considering great difference of the level and capacity of the staff between Syria and Egypt, I will try to apply everything what I learnt in CCC and EEAA to the laboratory in Damascus DFEA. This would benefit us by improving quality of the laboratory works and by reducing the laboratory costs.

Thank you

Annex 3-7:

Newsletter “Humat Beia”

3.7.5 Newsletter “Humat Beia” No.5

Humat Beia News Letter

Our target...



I.-1 Events of the Project (November , 2006 – February, 2007)

The 12th to 13th Technical Committee

The 12th to 13th technical committee (T/C) was held on the date presented below during the last four months. Key discussion points of each T/C are also described below.

*12th T/C (9th November, 2006)

- The next 5-years plan on Environmental Monitoring and project Management.
- Progress and problems of the project by some DFEAs.
- Plan of Operation of the project.



*13th T/C (21st February, 2007)

- Progress and difficulties of the project by some DFEAs.
- Summary of the project evaluation.
- Presentation of Progress Report-4.



6th Steering Committee (25th February 2007)

The 6th Steering Committee was held on 25th February 2007 chaired by the Minister of MOLAE and Damascus Governor. The main discussion points were:

- Current progress and difficulties of the Project by Tartus and Aleppo DFEAs.
- Project Evaluation results by GCEA.
- Presentation of progress report 4 by JICA Expert Team

The Minister showed high interest in solving all the current problems and difficulties of the project



Mid Term Evaluation Mission 6th-24th August 2006

The mid-term evaluation of the Project was conducted with the following purposes.

- To confirm past process and progress of the Project and estimate the feasibility that the Project purpose will be achieved within the executing term of the Project.
- To identify obstacles to efficient implementation and sustainability of the Project, and to develop the solutions.

- To review the framework of the Project to enhance its relevance to the current situation.

In particular, Institutional Empowerment of Target organizations which have sufficient capability in terms of the rest of the project implementation and further sustainability

I.-2 Events of the Project (November, 2006 – February, 2007)

Mid Term Evaluation Mission 6th-24th August 2006

1.1 Joint Evaluation Members

The Joint Evaluation Members of the Mid-Term Evaluation is as follows:

Syrian Side

Dr. Akram S. Al Khouri	Team Leader	Director General of GCEA, of Syrian side	MOLAE
Dr. Yasin Moa'alla	Member	Director of Laboratory, GCEA, MOLAE	
Dr. Nader Ghazi	Member		
Mr. Shaka Soliman	Member		
Ms. Reem Sadr Eddin	Member		
Mr. Ilya Wasel	Member		

Japanese Side

Dr. YOSHIDA Mitsuru	Team Leader	Cross-border Expert/ Senior Expert, of JICA side	JICA
Ms. KOJIMA Kojima	Member	Associate Expert, Environmental Management Team II, Group II (Environmental Management), Global Environmental Department, JICA	
Mr. IIO Akitoshi	Member	Senior Researcher, Mets Research and Planning Inc.	

The joint Evaluation members of the Mid-Term Evaluation mission had several meetings to evaluate the progress of the project.



The Mid Term Evaluation Mission visited some DFEAs and checked the current situation of the project Activities.



Dar'a DFEA



Dar'a DFEA



Hama DFEA



Hama DFEA



Sewida DFEA



Sewida DFEA



Aleppo DFEA



Aleppo DFEA



Lattakia DFEA



Tartus DFEA



Homs DFEA



Homs DFEA



Qunitera DFEA



Qunitera DFEA



Idleb DFEA



Idleb DFEA

I.-2 Events of the Project (November, 2006 – February, 2007)

Mid Term Evaluation Mission 6th-24th August 2006

Evaluation Results

The summary of the Mid-Term Evaluation is described on the basis of the Five Criteria.

1. Implementation Process

Communication among project members

Several communication tools were applied such Technical Committee meeting, Steering Committee meeting, Weekly meeting and Newsletter" Humat Beia".

Counterpart assignment

A total number of counterparts are now 115 (staffs for basic water quality analysis; 88), which is more than two times larger than initial stage, however, approximately 20% of laboratory staff has been changed since the Project commenced.

2. Relevance

Conformity with Syrian National Policy, Legal System, and Needs

In terms of Syrian national policy represented by the Five-Year National Development Plan currently issued 10th version (2006-2010), 1) consistency of implementation of environmental policy, 2) capacity development of environmental sector, 3) understanding of environmental conditions in Syria are stipulated as the target.

Legal Framework:

The legal framework for environmental management in Syria is as follows: Ministry of State for Environmental Affairs, GCEA, MOLAE after 2003. Law No.50 for the protection of the Environment.

Local needs:

Environmental conditions were unclear due to a lack of environmental monitoring system.

Conformity with Japan's ODA (Official Development Assistance) Policy

1) Modernization of socio-economic system, 2) water resource management and effective utilizations, 3) improvement of social services, 4) environmental protection are important measures by Japan's ODA policy.

Appropriateness of Target Group

All DFEAs (14) were targeted in different monitoring levels and parameters. There were no DFEA which could carry out regular environmental monitoring.

Effectiveness

Establishment of Laboratories at DFEAs

laboratory in each DFEA has established with necessary analytical equipments

Authorization of Laboratory

GCEA has a policy to disclose them to the public through the annual report and the GCEA web site

Efficiency

Timing, Quantity, and Quality of Inputs

Syrian side made larger efforts to provide laboratory space, counterpart personnel, on the other, Japanese side supplied necessary equipment and assigned JET

Target Group (14 DFEAs were targeted)

All DFEAs (14) were selected for the target group and training for basics water quality analysis covers all DFEAs

Third-country training (Training in Egypt)

In cooperation with JICA's project in Egypt, a study tour to EEAA and CCC in Egypt was done for showing an example of established environmental monitoring system

Impact

Mobile Laboratory provided by GCEA

GCEA has procured six (6) mobile laboratories including analytical equipments which cover air and water quality analyses

Reference Laboratory System

A reference laboratory system is becoming realistic needs for GCEA and DFEAs in order to secure their monitoring quality.

Sustainability

Environmental Institutional Aspect

Executive Instruction for Law No.50 (2002)

Organizational Aspect

Communication among GCEA and DFEAs were accelerated by the project implementation

Human Resources Aspect

the laboratory staff number has increased past 18 months to secure the sustainability of their laboratories.

Financial Aspect

Environmental Fund shall be considered for financial stability

National Committee for Public Awareness and Environmental Media

Water Quality Information

II.-2 Introduction of GCEA and DFEAs (No.5)

Hasakeh DFEA: Main Activities by:Eng. Raeifa Esper Director of Hasakeh DFEA

I will try to summarize the main activities and Environmental programs Hasakeh DFEA is conducting:

- Answering the Licenses and importing applications received by DFEA, necessary check is done on site then the approval is issued.
- After receiving the water quality equipment through JICA project and in cooperation with JET, Hasakeh DFEA set the monitoring plan for some locations in Hasakeh Governorate such as (Khabour River, Gagagh River, Basel Assad Lake, samples from factories and springs) where the analysis are done to discover the source of the pollution.
- The DFEA is making auditing and revision for the EIA studies for the establishments presented to the DFEA by the owners before starting the work.
- Receiving the complaints of the residence which is increasing day by day associated with the increase of the residence awareness. At first the DFEA check then put the solution on how to cope with this complaint and discuss this matter with the related agencies in order to be solved.
- DFEA is participating in the Environmental Committees at the governorate level. Such as solid waste management committee.
- Some staffs of the DFEA were nominated to be environmental inspectors to follow up the implementation of the Environmental Law No.50.
- Some staffs of the DFEA are sent to follow training courses in different environmental fields, nowadays most of the staff are following English ad computer training

- The DFEA held several seminars in cooperation with several agencies (women union, directorate of health, water establishment, youth union, pioneer union, city councils, oil companies, etc.) as well as the staff members of the DFEA made several lectures in most of the culture centers in order to raise the public awareness at the citizens.
- Now the DFEA is about to finish from a comprehensive study about the Hasakeh Governorate within 2006 including all pollution problems in the Governorate.
- on the special days and especially the environmental days many activities are executed such as : holding seminars and presentations about the environment, organization of sport activities associated with the distribution of paper leaflets, brochures and holding cleansing campaigns where most of the community activity can participate in.
- The DFEA has a library having many books and references which help the staff when they prepare any environmental report or study.
- The DFEA encourages the clubs, NGOs and it is ready to cooperate with them or with any other authority and the DFEA is ready to present all the requirements to push the environmental work to be a voluntary behavior by the people to achieve to safe environment.



Environment in Hasakeh



Lab. in Hasakeh DFEA

Annex 3-7:

Newsletter “Humat Beia”

3.7.6 Newsletter “Humat Beia” No.6

Humat Beia News Letter

Our target...



I.-1 Events of the Project (May, 2007 – August, 2007)

The 14th to 15th Technical Committee

The 14th to 15th technical committee (T/C) were held on the date presented below during the last four months. Key discussion points of each T/C are described below.

*14th T/C (22nd May, 2007)

- The study Tour to Egypt 1st – 6th Sep.2007
- Provision of Phase II of the project .
- Major activities from May to September.
- Presentation by Dar'aa, Hama and Qunitera DFEAs

*15th T/C (31st July, 2007)

- Brief explanation about the terminal evaluation of the project.
- Presentation by each DFEA.
- Q & A and opened discussions



The 7th Steering Committee (9th August, 2007)

The 7th Steering Committee was held on 9th August 2007 chaired by the General Director of GCEA. The main discussion points were:

- Results of the terminal evaluation by the joint evaluation committee
- Presentation of the progress report 5 by JICA Expert Team
- JICA Terminal Evaluation Mission participated in this meeting effectively.

The meeting was attended by the resident representative of the JICA Syria Office.



Terminal Evaluation Mission 22nd July -10th August 2007

The terminal evaluation activities were performed with the following activities:

- To verify the accomplishments of the project compared to those planned,
- To identify obstacles and/or facilitating factors that have affected the implementation process,
- To analyze the project in term of five criteria (i.e. relevance, effectiveness, efficiency, impact and sustainability), and

- To make recommendations on the project regarding the measures to be taken for the remaining period as well as for the post project period.

I.-2 Events of the Project (May, 2007 – August, 2007)

Terminal Evaluation Mission 22nd July -10th August 2007

1.1 Joint Evaluation Members

The Joint Evaluation Members of the Terminal Evaluation are as follow:

Syrian Side

Dr. Akram S. Al Khouri	Team Leader of Syrian side	Director General of GCEA, MOLAE
Dr. Yasin Moa'alla	Member	Director of Laboratory, GCEA, MOLAE
Dr. Nader Ghazi	Member	
Ms. Manal Al-Sakka	Member	
Mr. Shaka Soliman	Member	
Ms. Reem Sadr Eddin	Member	
Mr. Ilya Wasel	Member	

Japanese Side

Mr. TANAKA Kenichi	Team Leader	Senior Advisor JICA
Ms. SHINDO Reiko	Member	Environmental Management Team II, Group II (Environmental Management), Global Environmental Department, JICA
Ms. HIROUCHI Yasuyo	Member	Permanent Expert, International Development Associate Ltd.

The joint evaluation members of the Terminal Evaluation Mission had several meetings to evaluate the progress of the project.



The Terminal Evaluation Mission visited some DFEAs and checked the current situation of the project activities. In some governorates they met the governors and requested full support to the project.



Tartus DFEA



Tartus DFEA



Aleppo DFEA



with Aleppo Governor



Homs DFEA



with Homs Governor



with Minister of MOLAE



with Minister of MOLAE



Signing M/M



15th TC Meeting



with DAMC Governor



with DAMC Governor



Aleppo DFEA Activities



Aleppo DFEA Activities



with Damascus Governor



Daraa DFEA

I.-3 Results of the Project (May, 2007 – August, 2007)

Terminal Evaluation Mission 22nd July -10th August 2007

Evaluation Results

The summary of the Terminal Evaluation is described on the basis of the Five Evaluation Criteria.

1. Relevance

The overall goal and the project purpose are still considered relevant with the needs of Syria and target groups, including staff of DFEA and GCEA, local inhabitants, etc. They are still consistent with the national development plan of Syria as well as Official Development Assistance (ODA) policies of Japan. Japanese technical advantage in the field of environmental Monitoring has been confirmed. As for the project design, it would have been more appropriate if regional peculiarities are taken into account in selecting analytical fields and parameters for DFEAs.

2. Effectiveness

so far, the most objectively verifiable indicators of the project purpose achieved except for publication of monitoring results. As confirmed at the time of Mid Term Evaluation, "GCEA has the policy to disclose all the environmental data obtained through the DFEA laboratories to the public through the annual report and the Web Site". For the publication of the monitoring results the laboratories need to be authorized by the Syrian Government and third laboratory such as the Atomic Energy Commission (AEC) of Syria. To date, none of the laboratories have been authorized yet though some of laboratories of DFEAs have participated in the program of AEC titled "Program for Quality Control for Laboratory Analysis". In addition, the achievement in the field of Air Quality Analysis is behind the schedule due to delay of procurement and delivery of major equipment and subsequent reduction in the training period. Except for publication of monitoring results, however, it is expected that the project purpose would be mostly achieved by the end of the project on the whole. The outputs of the project have contributed to the achievement of the project purpose. The project is considered to be effective.

3. Efficiency

In general, the inputs from both sides have been moderately appropriate in terms of timing, quality and quantity. One of the important assumptions ("Laboratory staffs trained by the project stay in laboratories and keep working on the Environmental Monitoring") has not been satisfied. Two out of three

Pre- conditions (" Appropriate number of laboratory staff who have chemical background are assigned in the target DFEAs in Governorates" and " Adequate waste water treatment plants shall be prepared before starting laboratory chemical analysis training in the target DFEA in Governorates") had not been satisfied prior to the commencement of the project. Only one waste water treatment plant in Damascus DFEA has been installed because of small quantity of waste water from the other DFEAs. However it has not worked because of technical condition. Therefore, those two pre-conditions have not been fully satisfied, either.

Although there have been issues, most of them have been addressed through collaboration of both sides so that their adverse effects on the achievement of the outputs have been mitigated to a certain extent. It is expected that all of the outputs would be fully or mostly achieved by the end of the project. The project is considered to have been mostly efficient.

4. Impacts

Impacts at the overall goal level: It is likely that the overall goal would be mostly achieved in 3-5 years after the termination of the project.

Other Impacts: Some positive impacts have been already observed. Negative impacts have not been observed. They are not foreseen, either.

5. Sustainability

Institutional and organizational aspects: The legal and policy support for environmental monitoring likely to continue. Environmental monitoring is one of the important tasks of the DFEAs so that it will continue after the end of the project. In the meantime, the laboratories of the DFEAs have not been authorized yet, which is a major obstacle for the DFEAs to utilize the monitoring data for controlling, enforcement, and punishing the polluters. While GCEA has a plan to increase the number of lab staff further, it is uncertain if all of the current C/P would stay with the DFEAs unless some measures are taken.

Financial aspects: the Syrian government has allocated sufficient budget for laboratories of the DFEAs. It is likely that financial sustainability is secured.

I-3 Results of the Project (May, 2007 – August, 2007)

Terminal Evaluation Mission 22nd July -10th August 2007

Technical aspects: In terms of Sampling and Analysis, technical level of most of the C/Ps is expected to be developed enough to continue the relevant activities by themselves, though further improvement regarding Quality Assurance/ Quality Control (QA/QC) is necessary. As for the rest of them, those who have and will have reached such a level are expected to transfer the acquired techniques and knowledge to them through OJT, utilizing Standard Operation Procedures (SOP), manuals, teaching materials developed by the project. In terms of interpretation and evaluation of the analyzed data, it is necessary for a lab to have at least one person who is able to analyze, evaluate the data and determine parameters by his/her own for each relevant analytical field. The equipment provided by the project is expected to be utilized and maintained properly.

6. Conclusion

So far, the project purpose has been mostly accomplished. Hereafter, based on the result of the project and the new needs of the country, it will be necessary to enhance the precision, among other priorities, of water quality and air quality monitoring for the improvement of the project.

It means that the primary basis of the water quality and air quality monitoring system has been established through the implementation of the project in terms of human resources, facilities, equipment and technologies. Moreover, the water quality data and air quality data acquired by the monitoring activities has been accumulated to publish official reports in the future.

Furthermore, the sustainability of the DFEA labs on the primary stage has been strengthened by the efforts of both sides in the aspects of human resources, budget allocation, legal and institutional framework through the implementation of the project.

Therefore, it can be concluded that the original target of the project is expect to be mostly accomplished and then the project shall be terminated in January 14, 2008 as planned in the R/D.

7. Recommendations:

7.1 for the remaining period

1) it requires efforts to have staff with adequate

Background and not to change their job.

2) five DFEAs have applied for AEC Program for QA/QC and the rest nine will try to apply soon and GCEA is required to renew the accreditation

3) it is necessary to set the operation for the waste water treatment plant in Damascus DFEA soon.

7.2 For the post project period

1) short term recommendations

- planning for training for air quality

- Continuous contact with JICA to inform them the latest condition and request any further help.

- Beforehand application for the budget: to continue the smooth application for the budget.

- The condition needed for the technical capacity development: it is needed to enhance the activities of water and air quality for DFEAs and the following items are needed for this purpose

a. Continues disbursement of sufficient budget

b. more incentives for the staff

c. Adequate technicians who will be engaged especially in the activities on analysis in the labs.

d. Continues and appropriate preventive maintenance of the equipment and machineries at labs

2) Mid and Long Term Recommendations

1- Job description: it is essential to secure and increase the appropriate permanent staff. In this sense the division of the duties in the lab under the integrated institutional framework will be needed for the near future.

2- Environmental Policy: GCEA has prepared National Monitoring Plan for the implementation of the Environmental Policies, so appropriate procedures are required to reflect the national level to local level.

3- Accreditation of AEC: it is essential to get the accreditation of AEC (and ISO 17025) in the future. It is recommended that JICA will give the needed advice.

8. Lessons Learned

1- It is important to promote synergy among the related programs in the same field e.g. METAP, GTZ training on EIA etc. in order to promote greater impact and to ensure sustainability after the project ends.

2- Organizational Structure of the project as well as internal and mutual communication and understanding is the key issue for efficient and effective implementation of the project.

Annex 3-7:

Newsletter “Humat Beia”

3.7.7 Newsletter “Humat Beia” No.7

Humat Beia News Letter

Our target...



Final Seminar

The final Seminars were held in Aleppo, Hama and Damascus on December 5th, 6th and 9th. This seminar was held according to the following purposes: to present and share current environmental situation of each DFEA, to summarize outcomes of the Project, and to prospect sustainability and future activities related to environmental monitoring. In each place 14 DFEAs, totally 150 participants, attended this seminar.

The final seminar in Aleppo (5th/December/2007)

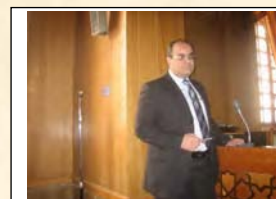
The final seminar was held at a meeting room in Aleppo Governorate. Six DFEAs (Aleppo, Idleb, Rakka, Deir ez Zor, and Hassakeh) congregated to present and discuss monitoring activities in each DFEA. 42 people; including guest from Aleppo University, ICARDA, and ACI participate to this seminar.

*Agenda of the seminar

- Opening Speech (by vice Governor of Aleppo)
- Result of Basic Water Quality, and Situation and Problems of Regional Environment (by Idleb, Rakka, Deir ez Zor, Hassakeh DFEA)
- Monitoring Result of Pollution Sources (by Aleppo DFEA)
- Future Plan of the Environmental Monitoring (by GCEA)
- Discussion
- Comment and Summary of the Final Seminar (by GCEA and JICA Expert Team)
- Closing Remarks (by Director of Directorate of Laboratories GCEA)

Well organized presentations from each DFEA are conducted; through these presentations, good progress for monitoring activities is confirmed. Especially, Idleb presented video for public awareness; Rakka presented their positive approach for pollution sources.

Through discussions of participants, it is confirmed that cooperation between Aleppo University, ACI and DFEAs is important for the sustainability of this Project.



The final seminar in Hama (6th/December/2007)

The Seminar in Hama, four DFEAs (Hama, Homs, Tartuse and Latakia) congregated to become 45 participants totally in Hama DFEA.

【Agenda of the seminar】

- Opening Speech (by Governor of Hama, JICA Syria Office)

- Result of Basic Water Quality, and Situation and Problems of Regional Environment (by Lattakia, Tartous and Hama DFEA)
- Monitoring Result of Pollution Sources (by Homs DFEA)

Final Seminar

- Future Plan of the Environmental Monitoring (by GCEA)
- Discussion
- Comment and Summary of the Final Seminar (by GCEA and JICA Expert Team)
- Closing Remarks (by Director of Directorate of Laboratories GCEA)

After the informative presentations from DFEAs, Dr. Yashin (Director of Directorate of Laboratory) emphasized that the continuous efforts and activities are important; and recommended to review the Progress Report

(5) which includes the Terminal Evaluation result again.



The final seminar in Danascuc (9th/December/2007)

The final seminar in Damascus was held on 9th of December; which parallel held of the 8th Steering Committee for the Project “The Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs.”

Five DFEAs (Dara’a, Sweida, Quneitre, Damascus and Damascus Countryside) congregated to become 59 participants totally in Damascus Governorate.

【Agenda of the seminar】

- Opening Speech (by Governor of Damascus and Resident Representative of JICA Syria Office)
- Result of Basic Water Quality, and Situation and Problems of Regional Environment (by Dara’a, Sweida and Quneitra DFEA)
- Monitoring Result of Pollution Sources (by Damascus Countryside and Damascus DFEA)
- Future Plan of the Environmental Monitoring (by GCEA)
- Discussion
- Comment and Summary of the Final Seminar (by GCEA, JICA Expert Team, JICA Syria Office)
- Closing Remarks

For the comprehensive and informative presentation by each DFEA; the General Director of GCEA, Dr.Akram and Chief Advisor of the JICA Expert Team, Mr. Iwai appreciated each of the great efforts and well prepared presentations; and commented several key issues on the Project sustainability.

Through discussions, it was emphasized that self-reliance effort and continuation of activities is very important.

