

**Minutes of Meeting**  
**On**  
**The 6th Technical Committee**  
**For**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**For**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 13 December 2005

The 6th technical committee (T/C) was held on 13 December, 2005 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by an opening statement by Dr. Yasin Moa'illa, Director of the Directorate of Laboratories of GCEA, mentioning current situation of the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project). Then, Mr. Yoichi Iwai, the Team Leader of the JICA Expert Team made presentation referring the following 3 technical items.

1. Training Contents and Schedule up to March 2006
2. Current Situation of Air and Water Quality Equipment
3. Problems and Difficulties on Monitoring Activities


After series of discussion, the General Director of GCEA, Dr. Akram S. Al Khouri, made closing remarks of the 6th T/C meeting

An attendant list and the agenda of the 6th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

The followings are the issues discussed and commented upon in the 6th T/C meeting.

- (1) Directors of all Directorates for Environmental Affairs (DFEAs) appreciated current and planned training activities of the JICA Expert Team. They, however, expressed their budget constraints to attain planned training courses and to conduct monitoring activities in December 2005, because it was the last month of current fiscal year and their budgets were mostly run out conditions. The JICA Expert Team, Mr. Yoichi Iwai, replied that the planned training courses in December should be rescheduled taking current situations of DFEAs into account and the JICA Expert Team would visit each DFEA to check and instruct monitoring activities.
- (2) Directors of all DFEAs requested for more DFEA staff to GCEA for fulfillment of their mandates and works of the Project, and urged quick supply of sampling vehicles. The General Director of GCEA, Dr. Akram S. Al Khouri, promised to convey this request to the Minister of MOLAE, and he mentioned that sampling vehicles were in final custom clearance and these could be delivered in coming January.
- (3) The Director of the Directorate for Environmental Affairs (DFEA) in Hama, Mr. Ali Iwaid, confirmed an additional glassware supply of the Project. The JICA Expert Team, Mr. Shunsuke Sato answered that it was ready ordered to suppliers and would be delivered in December or January.
- (4) The Deputy Director of DFEA in Sweida, Mr. ReF'at Khodr, requested for providing a stabilizer because their lab works had been suffered from frequent voltage unstableness. The

Dr. Akram S. Al Khouri  
General Director  
General Commission for Environmental  
Affairs

  
Mr. Yoichi IWAI  
Team Leader  
The Expert Team  
Japan International Cooperation Agency





JICA Expert Team, Mr. Shunsuke Sato, replied that the JICA Expert Team would decide it after checking current situation of lab works.

(5) The Director of DFEA in Lattakia, Ms. Lama Ahmad, requested that 1) a draft lab O/M manual should be prepared in Arabic version for easy understanding, 2) a time period of the round training to DFEAs should be flexible considering actual level of skills and knowledge of the counterparts, and 3) the JICA Expert Team should clarify concrete activities of public awareness and environmental education. The JICA Expert Team, Mr. Yoichi Iwai, answered that the manual was to be in Arabic, the period of round training was to be flexible based on actual conditions of the counterparts, and the activities on public awareness and environmental education should be clarified by the Mr. Kazuyuki Sato in charge during his stay in Syria.

(6) The Directors of DFEA in Aleppo (Mr. Saeid Naiffous), DFEA in Hama (Mr. Ali Jwaied), and DFEA in Idleb (Mr. Mahmound Taleb), mentioned that DFEAs have been sometimes asked by the governmental agencies to analyze samples and to prepare analysis data with technical judgment on them. In this connection, the Directors questioned the possibility whether the labs of DFEAs could issue an official letter referring analysis data to reply such requests. The JICA Expert Team, Mr. Yoichi Iwai, commented that the current analysis level of the counterpart could not be enough to evaluate and judge such an important subject at moment because it would require more time to establish QA/QC system in labs. Therefore, Mr. Yoichi Iwai asked the directors to understand the current situation of the labs and to refrain from issuing an official letter related to analysis data of the labs.

(7) The Deputy Director of DFEA in Damascus, Ms. Wadiea' Joha, explained current monitoring activities in Damascus DFEA, and questioned about problems on chloride and NO3 and NO3 analysis should be solved by the JICA Expert Team. Ms. Wadiea' Joha also mentioned several suggestions and recommendations related to the Project, and she submitted these by CD to the JICA Expert Team. The JICA Expert Team, Mr. Yoichi Iwai, highly appreciated an aggressive attitude of the Damascus DFEA to the Project, and announced to continue activities of the Project considering these suggestions and recommendations.

### List of Attendants

#### The 6th Technical Committee

##### Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouri	General Director	GCEA
Dr. Yasin Mout'illa	Director of Directorate of Laboratories,	GCEA
Ms. Wadiea' Joha	Deputy Director	DFEA Damascus
Mr. Suleiman Kalo	Director	DFEA Homs
Mr. Saeid Naiffous	Director	DFEA Aleppo
Ms. Mona Joma	Laboratory Chief	DFEA Damascus Countryside
Mr. Ali Jwaied	Director	DFEA Hama
Mr. Mahmound Taleb	Director	DFEA Idleb
Ms. Raefia Esper	Director	DFEA Hasakeh
Ms. Shamsa Aljaseem	Director	DFEA Rakka
Mr. Ref'at Khodr	Deputy Director	DFEA Sweida
Ms. Lama Harfoush	Staff	DFEA Tartus
Mr. Ali Ramadan	Staff	DFEA Tartus
Ms. Lama Ahmad	Director	DFEA Lattakia
Eng. Reham Agha	Director	DFEA Deir ez Zor
Mr. Hanzeh Sofiman	Director	DFEA Qunaitra

##### Japanese Side

Name	Position	Organization
Mr. Yoichi Iwai	Leader	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Dr. Rynan Matsue	Member	JICA Expert Team
Mr. Mohammed Doubosh	Interpreter	JICA Expert Team
Ms. Nada Kat	Interpreter	JICA Expert Team

**JICA EXPERT TEAM**

The Capacity Development of Environmental Monitoring at Directorates for  
Environmental Affairs in Governorates in the Syrian Arab Republic  
NIPPON KOEI CO., LTD.

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

ANNEX-2

To: Dr. Akram S. Al-Khour  
General Director,  
General Commission of Environmental Affairs  
JICA Syria

CC: Director of DFEA in Damascus,  
Director of DFEA in Homs,  
Director of DFEA in Aleppo  
JICA Syria

Telephone : 963-11-446 4796 (Damascus) 81-3 (5276) 3930 (Tokyo)  
Facsimile: 963-11-446 4796 (Damascus) 81-3 (5276) 2656 (Tokyo)  
E-mail : semp@scs-net.org (Damascus)  
int.e@gx.n-koei.co.jp (Tokyo)

Your ref. Our ref. EN65 002 Date: August 11, 2005

Dear Dr. Al-Khour,

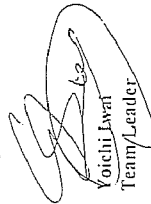
It is our pleasure to inform you the draft specifications for the 2<sup>nd</sup> year's equipment procurement of air and water quality sampling and analysis. The draft specifications attached in this letter are prepared through discussions with the directors and staff members of the Damascus, Homs and Aleppo DFEAs.

In this connection you are kindly requested to check and confirm the draft specifications, and please inform us when you have some comments and suggestions in the draft specifications before August 21<sup>st</sup>, 2005.

We would like to have the 4<sup>th</sup> technical committee on August 22<sup>nd</sup>, 2005 at the Damascus DFEA in order to agree and confirm the specifications for the 2<sup>nd</sup> year's equipment procurement.

Thank you for your kind cooperation.

Truly Yours,



Yoichi Iwata  
Team/Leader

JICA Expert Team

**1. Date and Venue:**

- Dec. 13 (Tue), 19:00-20:30: at meeting room in GCEA

**2. Agenda**

- |  |                    |
|--|--------------------|
| <b>1. Opening Statement</b><br>(by Dr. Yasin, Director of Directorate of Laboratories, GCEA) | <b>19:00-19:05</b> |
| <b>2. Presentation</b><br>(by the JICA Expert Team)  | <b>19:05-19:20</b> |
| 1) Training Contents and Schedule up to March 2006   |                    |
| 2) Current Situation of Air and Water Quality Equipment                                      |                    |
| 3) Problems and Difficulties on Monitoring Activities of DFEA                                |                    |
| <b>3. Q and A</b>  | <b>19:20-20:30</b> |
| <b>4. Closing Remarks</b><br>(by Dr. Akram, Director General of GCEA)                        | <b>20:30-20:35</b> |

End






**Minutes of Meeting  
On  
For  
The 7th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates  
For  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 1 March 2006

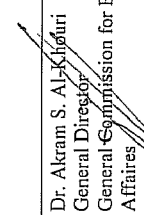

The 7th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 1 March, 2006 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by an opening statement by Dr. Yasin Moa'alla, Director of the Directorate of Laboratories of GCEA. Then, the following 4 themes were presented;

1. Environmental Monitoring Activities of Hama DFEA: by Mr. Ali Jwaied, Director,
2. Networking between GCEA and DFEAs: by Mr. Shaka Soliman,
3. Results of the Evaluation Survey: by Farouk Adli., EEC, and
4. Summary of the Progress Report 2: by Mr. Yoichi Iwai, the JICA Expert Team.

An attendant list and the agenda of the 7th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

The followings are the issues discussed and commented upon in the 7th T/C meeting.

- (1) Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, commented to the presentation made by the Director of the Directorate for Environmental Affairs (DFEA) in Hama, Mr. Ali Jwaied, that GCEA has planned to provide an oil content meter to all DFEAs, and it is necessary to clarify the key points to be revised on the by-law of Law No. 50. Mr. Ali Jwaied, replied that a matter of revision of the by-law should be discussed in the special committee in detail.
- (2) Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, questioned to the presentation made by the staff of the Directorate of Chemical Safety in the General Commission for Environmental Affairs (GCEA), Mr. Shaka Soliman, about an expected opening date of networking and possibility to prepare a Home Page (HP) of GCEA. Mr. Shaka Soliman answered that its opening date would be the end of March, and the HP could be established and be accessed from DFEAs.
- (3) Director of DFEA in Tartous, Mr. Hasan Marjan, requested to train how to use the air quality equipment to be provided by GCEA and to provide more equipment meeting with regional environmental issues. Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, replied that the training on air quality monitoring is planned only for three DFEAs (Damascus, Homs, and Aleppo), and other DFEAs could be able to participate the training course if they have any intention. Mr. Yoichi Iwai also mentioned that the provision of further equipment for environmental monitoring should be requested to JICA at the termination period of considering achievement results of the current Project.

 Dr. Akram S. Al-Khoduri General Director General Commission for Environmental Affaires	 Mr. Yoichi Iwai Team Leader The Expert Team Japan International Cooperation Agency
--	--

(4) Director of the Directorate of Public Awareness in GCEA, Dr. Nader Ghazi, questioned about the process of the Project Evaluation Survey. Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, answered that the methodology was discussed with the General Director of GCEA, Dr. Akram S. Al Khouri, in advance, and agreed its questionnaire contents in advance. Mr. Yoichi Iwai mentioned that comments and suggestions on the evaluation activities of the Project are always welcome because all concerned members should know actual results and achievements of the Project.

(5) General Director of GCEA, Dr. Akram S. Al Khouri, discussed and confirmed with the attendants about the General Results of the Project described in the Project Evaluation Survey. The following results are approved among attendants to the 7<sup>th</sup> T/C.

- There was a noticeable development on the capacity of C/P especially during the first year of the training.
- Some counterparts moved to work in other governmental agencies which decrease the benefits of the Project.
- Some counterparts joined the military service, and this also leads to delay the benefits of the project.
- Some counterparts left to work outside Syria, or they follow long-term training courses outside Syria and this of course affect the benefits of the Project.
- Some female counterparts used to have motherhood vacation and this is of course leads to delay the Project.
- All C/Ps showed satisfaction of the Project and they showed interest in continuing the work in this Project
- All C/Ps need capacity development in English and computer to improve their understanding of the Project.
- There is shortage in vehicles and drivers for sampling especially at the time before receiving a sampling car from GCEA.
- Most of C/Ps requested more training regarding data interpretation and laboratory analysis.
- Some DFEAs showed an interest in having training regarding the treatment of wastes resulting from olive extracting plants.
- In general, all Directors of DFEAs are cooperative and working to succeed the Project.
- Some C/Ps complained from that they don't have job description and organization chart.
- Some C/Ps requested to have more equipment to measure the soil analysis.
- In general, most DFEAs have a shortage of staff.
- The meetings with Governors were positive to a wide range because of the interest in the environment protection and the interest in the JICA Project.

(7) General Director of GCEA, Dr. Akram S. Al Khouri, discussed and confirmed the

Recommendations related to the Project described in the Project Evaluation Survey. The following results are agreed among attendants to the 7<sup>th</sup> T/C.

- Setting administrative organization chart for all DFEAs at Governorates.
- Acceleration completion of the new building construction for DFEAs.
- Giving the directors of DFEAs more authorities related to the work flow in DFEA.
- Supporting DFEAs by engineers from all specializations
- Qualifying C/Ps of DFEAs in English and computer.
- Supporting DFEAs by more vehicles, drivers, and petrol.
- Solving all related administrative obstacles.
- Demanding DFEAs to present their annual action plan.
- Continuation in qualification of C/Ps.
- Increasing the number of training courses.
- More OJT at each DFEA.
- Supplying requirements of DFEAs such as reagents, equipment, etc.
- More specialized training courses according to the needs of DFEAs.
- Shifting the staff from the military service to continue the rest of their military service at the DFEAs.
- Activate the relation among the staff of GCEA and DFEA staffs.
- Adoption of new standards for all kinds of pollutants
- Concentration on public awareness activities especially regarding school kids, industrial activities, farmers, youth and women organization and NGOs in the next stage of the Project.

(8) General Director of GCEA, Dr. Akram S. Al Khouri, questioned to all attendants of T/C whether they agreed to report the results of the Project Evaluation Survey to S/C to be held on 5 March, 2006. Through discussions on this matter, all attendants mostly agreed to report its results to S/C.

(9) The Director of DFEA in Rakka, Ms. Shamsa Aljaseem, requested a dryer for glassware equipment because it is necessary to obtain accurate values of BOD. The JICA Expert Team, Mr. Shunsuke Sato and Dr. Ryunan Matue, answered that there can not be any relation between a dryer and an accurate BOD value, and the JICA Expert Team will conduct further instructions related to the BOD analysis method to C/Ps.

List of Attendants  
The 7th Technical Committee

Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouri	General Director	GCEA
Dr. Yasin Mout'illa	Director of Directorate of Laboratories	GCEA
Ms. Wadiea' Joha	Deputy Director	DFEA Damascus
Mr. Suleiman Kalo	Director	DFEA Homs
Mr. Saeid Naiffous	Director	DFEA Aleppo
Ms. Mona Joma	Laboratory Chief	DFEA Damascus Countryside
Mr. Ali Jwated	Director	DFEA Hama
Mr. Mahmoud Taleb	Director	DFEA Idlib
Ms. Raoufa Esper	Director	DFEA Hasakeh
Ms. Shamsa Aljaseem	Director	DFEA Rakka
Mr. Ref'at Khodr	Deputy Director	DFEA Sweida
Ms. Lama Harfoush	Staff	DFEA Tartous
Mr. Ali Ramadan	Staff	DFEA Tartus
Ms. Lama Ahmad	Director	DFEA Lattakia
Eng. Reham Agha	Director	DFEA Deir ez Zor
Mr. Hamzeh Soliman	Director	DFEA Qunaitra

Japanese Side

Name	Position	Organization
Mr. Yoichi IWAI	Leader	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Dr. Rynan Matsue	Member	JICA Expert Team
Mr. Mohammed Doubosh	Interpreter	JICA Expert Team
Ms. Nada Kat	Interpreter	JICA Expert Team

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

Agenda for the 7th Technical Committee**1. Date and Venue:**

- March 1 (Wed), 11:00-13:50: at meeting room in GCEA

**2. Agenda**

- 1. Opening Statement**  
(by Dr. Akram, General Director, GCEA) 11:00-11:05
- 2. Presentation (by the DFEAs of Hama)** 11:05-11:35
  - 1) Summary of Monitoring Activities up to March 2006
  - 2) Problems and Difficulties on Monitoring Activities
- 3. Presentation: Networking between GCEA and DFEAs**  
(by Mr. Shaka) 11:35-11:50
- 4. Presentation (by Dr. Adli)** 11:45-12:00
  - 1) Results of Evaluation Survey
  - 2) Discussion 12:00-13:00
- 5. Presentation (by the JICA Expert Team)** 13:00-13:30
  - 1) Summary of the Progress Report-2
  - 2) Plan of Operation of the Project
- 6. Q and A** 13:30-13:50

*End*

**Minutes of Meeting**  
**On**  
**The 8th Technical Committee**  
**For**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**For**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 18 May 2006

The 8th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 18 May, 2006 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by an opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. Then, the following 5 themes were presented;

1. Summary of Environmental Monitoring Activities of DFEAs: by the JICA Expert Team,
2. Networking between GCEA and DFEAs: by Mr. Shaka Al-Soleman GCEA,
3. Plan of Operation of the Project up to September 2006: by the JICA Expert Team,
4. Mid-term Evaluation: by the JICA Expert Team, and
5. Confirmation Issues on the Operation of the Project: by the JICA Expert Team.

An attendant list and the agenda of the 8th T/C are attached per ANNEX-1 and ANNEX-2, respectively.


The followings are the issues discussed and commented upon in the 8th T/C meeting.

(1) The General Director of GCEA, Dr. Akram S. Al Khouri, reminded to all attendants that the Project is substantial for MOLAE in the field of environmental monitoring, that the aggressive attitude of the attendants should give high incentives to the counterparts (C/P), and that all attendants in this meeting should commit to make the frontline staff achieve the target technical level. Dr. Akram S. Al Khouri also informed to the attendants that the National Committee of Public Awareness and Environmental Education has been preparing a national strategy and action plan of public awareness to be authorized by the Environmental Protection Council in Syria in May or June 2006, and MOLAE plans to demonstrate its activities including this Project in the Event for the International Environment Day (5 June, 2006) to be held in Dier ez Zor.

(2) The Director of the Directorate for Environmental Affaires (DFEA) in Hama, Mr. Ali Jwaied, questioned how to deal with reagents expired, and when a wastewater treatment plant will be installed in the Damascus DFEA. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that DFEA should replace the reagents expired using the budget provided, and DFEA is required to conduct proper reagent management to avoid such wastes. Dr. Akram S. Al Khouri also answered that GCEA currently proposed to the Minister of MOLAE and the Governor of Damascus to install the wastewater treatment plant as soon as possible by using a special fund allocated to the Damascus Governorate.

(3) The Laboratory Chief of DFEA in Sweida, Ms. Omayma Al-Shaar, questioned how to deal with solid wastes of the laboratory such as capsules of reagents. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that such solid wastes should be collected and stored in DFEA,

Dr. Akram S. Al Khouri  
General Director  
General Commission for Environmental  
Affaires

  
Mr. Yoichi Iwai  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

and should be dumped to a managed public dumping site.

- (4) The Laboratory Chief of DFEA in Aleppo, Mr. Ahmad Ahmad questioned about a possibility of preparation of standard solution by the lab staff themselves, more training for a mobile lab provided by GCEA, and a supplement of lab staff. The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, replied that the preparation of standard solution could be possible and the JICA Expert Team will train it to the lab staff for saving expenses. Mr. Yoichi Iwai, also answered that the JICA Expert Team will train the mobile lab and other equipment provided by GCEA apart from the Project, but there could be some limitation because of relatively high priority to fulfill TOR given by the JICA Headquarters. The General Director of GCEA, Dr. Akram S. Al Khouri, answered that the DFEA in Aleppo has received more five staff and it would be enough for the time being.
- (5) In line with the questions related to the shortage DFEA staff, the Director of DFEA in Hasakel, Ms. Raafia Esper, and the Laboratory Chief of DFEA in Quneitra, Mr. Majed Zeton, requested to GCEA to supplement enough number of staff with chemical background. The General Director of GCEA, Dr. Akram S. Al Khouri, explained GCEA's effort to satisfy such requests from DFEAs.
- (6) The Director of DFEA in Idleb, Ms. Jomana Hasan, requested the JICA Expert Team to cover expenses for lab equipment O/M and to advise her how to use the annual budget for the environmental monitoring. The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, replied that the expenses for lab equipment O/M should be covered by the Syrian side, so JICA can not cover them, and that the JICA Expert Team will advise how to use the annual budget.
- (7) The Director of DFEA in Hama, Mr. Ali Jwaied, and the Laboratory Chief of DFEA in Lattakia, Ms. Amal Merhge, requested to the JICA Expert Team to check conditions of equipment provided by JICA such as pH meter. The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, answered to dispatch a member of the Team or our local expert to check the equipment having troubles.
- (8) The Laboratory Chief of DFEA in Sweida, Ms. Omayna Al-Shaar, asked GCEA about a possibility to issue the analysis data of springs requested by the Water Establishment in Sweida. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that it is possible to send the analysis data to the Water Establishment in Sweida with a letter.

- (9) The staff of the Directorate of Laboratories in GCEA, Ms. Kozama Abo Saab, questioned about roles of GCEA to the Project. The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, explained that the concerned departments of the Project widely range for Directorate of

Laboratories, Directorate of Air Safety, Directorate of Water Safety, Directorate of Public Awareness, and Information Unit in GCEA, so the General Director of GCEA is appointed as the Project Director. Mr. Yoichi Iwai also presented the following roles of GCEA to the Project showing an additional slide.

- 1) Coordinating activities of the Project for DFEAs,
- 2) Check and management of the Project (Progress and Achievement),
- 3) Solutions of difficulties confronted to C/P, lab O/M, and budget in DFEAs,
- 4) Data management and Communication with DFEAs, and
- 5) Data Compilation and publication, and sharing among stakeholders.

- (10) The Deputy Director of DFEA in Damascus, Ms. Wadia Jaha, requested to the JICA Expert Team a support for preparation of detail specification of the wastewater treatment plant, and for activation of public awareness and environmental education. The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, agreed to conduct further supports requested. Mr. Yoichi Iwai proposed Ms. Wadia Jaha to share the experiences of the Damascus DFEA related to public awareness and environmental education including a study tour to Jordan among GCEA and DFEAs. Ms. Wadia Jaha agreed with this proposal.



List of Attendants  
The 8th Technical Committee

Syrian Side

Name	Position	Organization
Dr. Akram S. Al-Khourri	General Director	GCEA
Dr. Yasin Mostafa	Director of Directorate of Laboratories,	GCEA
Dr. Nader Ghazi	Director of Directorate of Public Awareness	GCEA
Ms. Reem Abed Rabbooh	Director of Directorate of Water Safety	GCEA
Mr. Shaka Alsoleman	Head of information unit	GCEA
Mr. Fadi Alawad	Staff of information unit	GCEA
Ms. Najah Alhamwvi	Staff of Air Safety Directorate	GCEA
Ms. Fathia Mohammed	Staff of Directorate of Laboratories	GCEA
Ms. Kholzama Abo Saab	Staff of Directorate of Laboratories	GCEA
Mr. Mohammad Younes	Staff of Directorate of Laboratories	GCEA
Ms. Wadiah Johna	Deputy Director	DFEA Damascus
Ms. Reem Sadder Aldeen	Laboratory chief	DFEA Damascus
Mr. Ahmad Ahmad	Laboratory chief	DFEA Aleppo
Ms. Mouna Al-Jomaa	Laboratory Chief	DFEA Damascus Countryside
Mr. Ali Jwated	Director	DFEA Hama
Ms. Jomana Hasan	Director	DFEA Idlib
Ms. Raefifa Esper	Director	DFEA Hasakeh
Ms. Shamsa Aljaseem	Director	DFEA Rakka
Ms. Omayma Al-shaar	Laboratory Chief	DFEA Sweida
Mr. Zead Sakr	Staff in laboratory	DFEA Tartus
Ms. Fatma Al-hariri	Director	DFEA Dara'a
Ms. Amal Merhige	Laboratory Chief	DFEA Latakia
Eng. Reham Aga	Director	DFEA Deir ez Zor
Mr. Majed Zeton	Laboratory Chief	DFEA Qunaitra

Japanese Side

Name	Position	Organization
Ms. Yomiko Honda	Project formulation Advisor	JICA Syria Office
Ms. Marah Morad	Program officer, Health and Environment Sector	JICA Syria Office
Mr. Yoichi IWAI	Leader	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Mr. Keiichi Takahashi	Member	JICA Expert Team
Mr. Mohammed Douboosh	Interpreter	JICA Expert Team
Mr. Wasim Kabbesh	Interpreter	JICA Expert Team

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

Agenda for the 8th Technical Committee

1. Date and Venue:  
- May 18(Thr), 11:30-13:30: at meeting room in GCEA
2. Agenda
  1. Opening Statement  
(by Dr. Akram, General Director, GCEA) 11:30-11:35
  2. Presentation (by the JICA Expert Team) 11:35-11:45
    - 1) Summary of Monitoring Activities up to May 2006
    - 2) Problems and Difficulties on Monitoring Activities
  3. Presentation: Networking between GCEA and DFEAs  
(by Mr. Shaka, GCEA) 11:45-12:00
  4. Presentation (by the JICA Expert Team) 12:00-12:30
    - 1) Training Schedule up to Sept. 2006
      - Follow-up of the basic analysis
      - Chemical and biological analysis
      - Air quality analysis
      - Data management
      - Public awareness
    - 2) Equipment Procurement
      - Air quality equip
      - Atomic Absorption Spectrophotometer
    - 3) Mid-term Evaluation
      - Date and mission members
      - Purpose and evaluation points
      - Major activities of the mission
    - 4) Confirmation
      - Lab wastewater treatment plant
      - Syrian side responsibility of consumables and Lab O/M
      - Responsibility of DAM DFEA as the central lab to other DFEAs
5. Q and A 12:30-13:20
6. Closing Remarks  
(by Dr. Akram, Director General, GCEA) 13:20-13:30

End

**Minutes of Meeting  
On  
The 9th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates  
For  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 22 June 2006

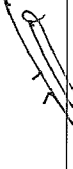
The 9th Technical Committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 22nd June, 2006 at the Director Room in the Directorate for Environmental Affaires (DFEA) in Damascus. The principal objective of the 9th T/C is to discuss the draft technical specifications for the atomic absorption spectrophotometer (AAS) to be procured by JICA in 2006 and to get agreement with the General Commission for Environmental Affaires (GCEA), the Damascus DFEA and the JICA Expert Team (JET).

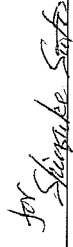
After the opening statement by the Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'lla, the JET, Mr. Koji Kimura, explained the outline of the draft specifications of the AAS. After the series of discussion, the GCEA, the DFEA and the JET attended to the 9th T/C reached to the agreement on the draft technical specifications.

An attendant list of the 9th T/C and the technical specifications prepared by the JICA Expert Team are attached per ANNEX-1 and ANNEX-2

The followings are the issues discussed in the 9th T/C meeting.

- (1) In the first place, the Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'lla, questioned to the JET that whether the AAS to be purchased was equipped with hydride generation unit. The JET, Mr. Koji Kimura, replied that the AAS to be purchased is equipped with the hydride generation unit and mentioned in the draft specifications.
- (2) The Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'lla, questioned about the performance of the AAS. The JET, Mr. Koji Kimura, replied that the AAS to be purchased was equipped with the Furnace and the Flame to analyze both low concentration and high concentration as mentioned in the draft specifications.
- (3) The Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'lla, also questioned about the possibility of purchasing of additional lumps to analyze the elements in samples of soil, food, etc. except the elements mentioned in the specifications. The JET, Mr. Koji Kimura, replied that the AAS to be purchased might analyze the metals in soil, food, etc. in general because the analysis methods for metals in soil, food, etc. were basically similar to that of water. However, the pretreatment methods are quite different with each other. The specifications is specifying to analyze the water samples. In relation to analysis of additional elements, the JET, Mr. Koji Kimura, replied that the additional lumps would be required for the analysis of additional elements. The JET, Mr. Shinsuke Sato, supplementary explained that the specifications were prepared based on the Record of Discussion (R/D) agreed between the Syrian side and JICA on September 9, 2004. The R/D limited the analysis of water samples and specified metals. Therefore, the soil samples and additional element to be analyzed mentioned

  
Dr. Yoram S. Al-Khoury  
General Director  
General Commission for Environmental  
Affaires

  
Mr. Yoichi Iwai  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

by Dr. Yasin Moa'ila could not be included in the specifications at this moment. Mr. Shinsuke Sato suggested that any request for further assistance from JICA not described in R/D should be discussed and agreed in the Steering Committee (St/C) of the Project at first. Dr. Yasin Moa'ila understood this answer.

(4) Dr. Al Muthanna, the staff of laboratory of Damascus asked the name of manufacturer of AAS that the JET had investigated this time. The JET, Mr. Koji Kimura, answered that investigation had made concerning three manufacturers, namely Analytica Jeana, Shimadzu and Varian. Dr. Al Muthanna suggested that the manufacturer of AAS should be selected that could serve sufficient after-sale maintenance. The JET acknowledged this, and Mr. Shinsuke Sato replied that a clause of after-sale maintenance was involved in the specifications.

(5) The Director of Damascus DFEA, Mr. Bassam Khairbek, questioned about the reason of the selection of three manufacturers. The JET, Mr. Koji Kimura, answered that as a result of the investigation of the status of AASs in Syria in eight organizations and laboratories equipped with AAS, the JET selected three manufacturers that could meet the specifications prepared by the JET. The Director of Damascus DFEA, Mr. Bassam Khairbek understood this answer.

(6) The Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'ila questioned about the maintenance period after the initial installation by the supplier. The JET, Shinsuke Sato, replied that, as mentioned in the specifications, the supplier was obligated to serve the maintenance for one year after the installation. The Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'ila requested that the maintenance period after the installation should be extended to five years. The JET, Shinsuke Sato, answered that the AAS should be maintained by the Damascus DFEA from the second year onward after the installation of the AAS. Dr. Yasin Moa'ila understood this and expressed that the maintenance from the second year after the installation of the AAS would be conducted by the Damascus DFEA by their own expense. Dr. Yasin Moa'ila also requested that the clause of the continuation of the maintenance from the second year should be mentioned in the specifications for the execution of maintenance by the Damascus DFEA. The JET, Shinsuke Sato, agreed with this.

(7) The Director of Damascus DFEA, Mr. Bassam Khairbek, questioned about the level of the AAS that would be installed in the laboratory of the Damascus DFEA comparing with other laboratories that equipped with AASs. The JET, Mr. Koji Kimura, answered that the existing AASs in Syria were not necessarily utilized to the full extent in terms of performance and accuracy due to mainly the lack of the knowledge and the skill for the pretreatment of samples. The JET, Mr. Koji Kimura, also answered that the draft specifications prepared by the JET included the glassware and reagents to be required for the pretreatment of water samples for the analysis by using the AAS. Mr. Bassam Khairbek understood this answer.

(8) The Director of Damascus DFEA, Mr. Bassam Khairbek, questioned about the procurement

schedule and the warranty period of the AAS to be purchased by JICA. The JET, Mr. Shinsuke Sato, answered that JICA would tender for the AAS on August 2006 based on the information submitted by the JET, and the AAS would be delivered and installed in the Damascus DFEA on November. The JET, Mr. Koji Kimura, answered that the warranty period would be one year after the installation of the AAS in the Damascus DFEA. Mr. Bassam Khairbek understood this answer.

(9) The Director of Damascus DFEA, Mr. Bassam Khairbek, questioned about the training for the AAS. The JET, Mr. Koji Kimura, replied that the JET would start the training for the AAS after the installation of the AAS in the Damascus DFEA. Mr. Bassam Khairbek also questioned about the number of trainees that could participate in the training. The JET, Mr. Shinsuke Sato, answered that the number of the trainees to be participated in the training would not be limited, and the JET could accept the C/P personnel from other DFEAs for the trainees.

List of Attendants

## ANNEX-2

Syrian Side

Name	Position
Dr. Yasin Ma'alla	Director of Directorate of Laboratories, GCEA
Eng. Bassam Khairbek	Director of Damascus DFEA
Eng. Wadia a. Jeha Khouri	Deputy Director of Damascus DFEA
Eng. Khozama Abo Saab	Staff, Directorate of Laboratories, GCEA
Dr. Almutianna Ghanem	Staff, Damascus DFEA
Ms. Reem Sadr Eddin	Staff, Damascus DFEA

Japanese Side

Name	Position
Mr. Shunsuke Sato	Member, JICA Expert Team
Mr. Koji Kimura	Member, JICA Expert Team
Mr. Keiich Takahashi	Member, JICA Expert Team
Mr. Mohammed Alhouhosh	Interpreter, JICA Expert Team
Mr. Wasim Kabbesh	Interpreter, JICA Expert Team

## EQUIPMENT PROCURED IN THE FISCAL YEAR OF 2006

**DRAFT SPECIFICATION  
FOR  
ATOMIC ABSORPTION SPECTROPHOTOMETER**

Quotation Table for Atomic Absorption Spectrophotometer for JICA

Agency : \_\_\_\_\_ Name of AAS : \_\_\_\_\_

Additional information should be attached separately. Do not change the format.

Item No.	Name of equipment	Required technical specifications ( Alternatives are not admitted )	Quantity	Unit Price US Dollars (DDU)	Sub Total Price
1	Atomic Absorption Spectrophotometer  ( to be continued )	<p>◇ A complete atomic absorption spectrophotometer set</p> <p>Flame – flameless atomizer unit switching : automatic ( semi or fully ) or not necessary to switch at all Beam quantity : single / double Wavelength range : 190-900nm or wider Background correction : Deuterium / Self Reverse / Zeeman</p> <p>•Lamp Lamp for correction should be equipped Number of Hollow Cathode Lamps set in the main machine : 6 or more</p> <p>•Software Measurement mode : both of flame and furnace Method : calibration curve method standard addition method Drift correction : automatic (PC controlled) Calculation : final concentrations from sample volumes and other factors</p> <p>•Burner unit Burner head : standard head for C<sub>2</sub>H<sub>2</sub>-air, Qty ( 1 ) Burner head : high temperature head for N<sub>2</sub>O-C<sub>2</sub>H<sub>2</sub>, Qty ( 1 ) Nebulizer : Pt-Ir capillary with Teflon orifice, Qty ( 1 ) Chamber : polypropylene / polyethylene / Teflon, Qty ( 1 ) Positioning : Automatic (fully or semi) flame – furnace switching and searching optimum alignment of burner or beam ( if necessary to switch flame – furnace atomizer unit)</p> <p>•Gas flow rate / pressure control Automatic (PC controlled)</p>	1 set		

1/6

Item No.	Name of equipment	Required technical specifications	Quantity	Unit Price	Sub Total
(1)	Atomic Absorption Spectrophotometer ( continued )	<p>• Graphite furnace unit</p> <p>Drying : digital current control and/or infrared Ashing and atomization : digital temperature control Heating temperature : ambient to 2000°C or more Inner gas flow rate : 0 to 1.5 L/min or more Graphite tube : High-density / high-density pyro-coated graphite tube, Qty ( 15 ) Platform tube, Qty ( 15 )</p> <p>• Operating manual in English</p> <p>• Power source : AC220V 50Hz (single phase) C-type plug</p>			
2	Spare parts	<p>◇ Spare parts and consumables provided initially (attach a breakdown)</p> <p>Required by measurement for more than 1 year Required by measurement for more than 1000 samples</p>	1 set		
3	Auto sampler	<p>◇ Automatic sampler</p> <p>Automatic sampler for flame and furnace system</p> <p>Functions Flame : auto rinse, random access Furnace : auto rinse, random access, auto dilution, auto reagent addition for calibration curve</p> <p>Max. positions : 60 or more positions for samples for both flame and furnace Vials or other vessels suitable for automatic samplers Vials for flame : Qty ( more than the numbers of positions of the sampler ) Vials for furnace : Qty ( more than the numbers of positions of the sampler ) Solvent container : more than 1000mL Sample syringe, pump or injection Flame : injection volume 2 to 200 μL or wider / pump ( without limit ) Furnace : syringe with max. suction volume of 20 μL or more</p>	1 set		
4	PC, etc	<p>◇ PC set</p> <p>OS : Officially licensed MS-Windows XP (English version) , Qty ( 1 ) Monitor : 15 inch-size or larger, Qty ( 1 ) Printer : A4 laser printer which is suitable to print required information, Qty ( 1 ) On-line UPS for PC : working for 10 minute or more while electrical power failure, Qty ( 1 )</p>	1 set		

2/6

Item No.	Name of equipment	Required technical specifications	Quantity	Unit Price	Sub Total
5	Equipment for As, Sb and Hg	◇ Special equipment for As, Sb and Hg	1 set		
		Hydride vapor generator unit for analysis of : As (quantitation limit must be less than 1 μg/L) Sb (quantitation limit must be less than 2 μg/L) Hg (quantitation limit must be less than 0.5 μg/L) Nozzle assembly Absorption cell, Qty ( 2 ) Cell holder Suitable bottles for reagents note: quantitation limits = detection limits × 10/3			
6	Equipment for Hg	◇ Special equipment for Hg	1 set		
		(if necessary besides above mentioned hydride vapor generator) Mercury vaporizer unit for analysis of : Hg (quantitation limit must be less than 0.5 μg/L) Nozzle assembly (including rubber stopper with a straight glass frit having a coarse porosity)  Gas-flow cell Cell holder Drainage container with stopping Reaction flask suitable to the assembly ( the rubber stopper ), Qty ( 30 )			
7	Air compressor	◇ Low Noise Air compressor	1 set		
		Mist (oil) separator			
8	Cooling unit	◇ Cooling water circulator	1 set		
		Nozzle assembly with connection kit for graphite furnace Suitable for operating graphite furnace method			

3/6

Item No.	Name of equipment	Required technical specifications	Quantity	Unit Price	Sub Total
9	Lamp	◇ Hollow cathode lamp for each element			
		lamp for Ag	1		
		lamp for Al	1		
		lamp for As	1		
		lamp for Ba	1		
		lamp for Be	1		
		lamp for Cd	1		
		lamp for Cr	1		
		lamp for Cu	1		
		lamp for Fe	1		
		lamp for Hg	1		
		lamp for Mn	1		
		lamp for Ni	1		
		lamp for Pb	1		
		lamp for Sb	1		
lamp for Zn	1				
	Sub total				

4/6

Item No.	Name of equipment	Required technical specifications	Quantity	Unit Price	Sub Total
10	Freight, etc.	◇ Freight	1 set		
		◇ Customs duty ( excluded ) ( Imported products should be delivered into the Tax-Free Zone in the airport )			
		◇ Customs clearance ( Shipping from the manufacturer should be reported immediately to JICA Syria Office for quick procedure )	1 set		
		◇ Installation To the laboratory on the 2nd floor without lifts ( Installation should be completed within 3 month since the order )	1 set		
		Sub total			
11	Training	◇ Training	1 set		
		Initial training on site should be provided by engineers from the manufacture or authorized dealer (supplier) for 5 consecutive or separate days set by JICA Expert Team (5 days excluding installation)			
12	Maintenance	◇ Periodical maintenance for the first year See attachment 1	1 set		
		◇ Periodical maintenance for the 2nd - 5th year ( obligation )	4 sets		excluded
		See attachment 1, The fee mentioned here can not be raised for these 4 years. The contents and frequency of the maintenance can not be increased. This fee is not going to be included in the total price for this quotation.			
		Sub total			
13	Gas supply	◇ Gas cylinder			
		acetylene	2		
		nitrous oxide	2		
		argon	2		
		◇ Heater for nitrous oxide	1		
		◇ Regulator	3		
		◇ Gas pipe	1 set		
		Stainless pipes including installation ( see attachment 2 )			
Sub total					

5/6

Item No.	Name of equipment	Required technical specifications	Quantity	Unit Price	Sub Total
14	Fume hood	◇ A stainless fume hood with ventilator including installation ( see attachment 3 )	1 set		
15	Standard solutions	◇ Standards (1000mg/L, 500mL or more)			
		Standard solution for Ag	1		
		Standard solution for Al	1		
		Standard solution for As	1		
		Standard solution for Ba	1		
		Standard solution for Be	1		
		Standard solution for Cd	1		
		Standard solution for Cr	1		
		Standard solution for Cu	1		
		Standard solution for Fe	1		
		Standard solution for Hg	1		
		Standard solution for Mn	1		
		Standard solution for Ni	1		
		Standard solution for Pb	1		
		Standard solution for Sb	1		
Standard solution for Zn	1				
Sub total					
16	Matrix modifier	◇ Matrix modifier ( Suitable concentration, 100mL or more)			
		Pd(NO <sub>3</sub> ) <sub>2</sub>	1		
		Mg(NO <sub>3</sub> ) <sub>2</sub>	1		
		CaCl <sub>2</sub>	1		
Sub total					
Warranty : All machineries and accessories mentioned above ( excluding spare parts and consumables ) must be guaranteed for 1 year after installation.					
Total Price (DDU)					

6/6

## Attachment 1 : Periodical maintenance

The supplier shall be required to maintain the instrument with accessories considering analyzed results periodically within each period set by JICA Expert Team. The frequency of periodical maintenance should be 5 times per year. The specific dates should be set through consultation between the supplier and JICA Expert Team or the Damascus DFEA.

Every maintenance activity should be done with the laboratory personnel to be in attendance. The supplier should explain what they do for maintenance to the laboratory personnel and cooperate to help improving technology transfer to the laboratory personnel.

The supplier must report every maintenance activity by documents to with certain format prepared by JICA Expert Team.

Periodical maintenance does not contain extraordinary maintenance required in case of emergency.

The whole period of the periodical maintenance described here is one year. However, the periodical maintenance must be continued for 5 years in all. The conditions ( frequency, contents, maintenance fee, etc. ) of the periodical maintenance after one year can be decreased through consultation between the supplier and the Damascus DFEA.

The maintenance after one year should be done on the Damascus DFEA's expense.

Consumables required in all periodical maintenance should be provided at the Damascus DFEA's expense.

The supplier should provide necessary equipment, spare parts and consumables suitably for 5 years at least.

## Component 1 : Regular maintenance

The supplier shall be required to check items as follows at each time of regular maintenance. The frequency of regular maintenance should be 5 times per year ( every time of the periodical maintenance).

The values as criteria mentioned below should be set by JICA Expert Team in the period between the introduction of the instrument and the first periodical maintenance.

## 1) General maintenance

The supplier should confirm that the instrument with all accessories are in good condition available for each analysis. If they are not, the supplier should deal with the problem and report the result to the laboratory side by means of methods including the contents of the periodical inspection described in Component 2.  
The supplier should provide the consumables enough for operations until the next maintenance at least.

## 2) Confirmation of linearity of calibration curves

The supplier should check all calibration curves obtained from analyses after the previous maintenance.  
The supplier should confirm that the value of correlation coefficient of each calibration curve satisfy a certain value as a criterion. If they don't, the supplier should deal with the problem and report the result to the laboratory side.

## 3) Confirmation of stability of absorbance ( each )

The supplier should confirm that the difference between a value of peak area or height of absorbance of an analysis and one of the previous analysis is not larger than a certain value as a criterion. If it is, the supplier should deal with the problem and report the result to the laboratory side.

The target values should be from the largest concentrations of calibration curves ( standards ) for different analyses of the same element.

## 4) Confirmation of stability of absorbance ( whole )

The supplier should confirm that the %RSD ( CV ) of values of peak area or height of absorbance of all analyses within one year is not larger than a certain value as a criterion. If it is, the supplier should deal with the problem and report the result to the laboratory side.

The target values should be from the largest concentrations of calibration curves ( standards ) for all analyses of the same element within one year.

## Component 2 : Periodical inspection

The supplier shall be required to inspect in accordance with the methods authorized by the manufacturer 2 times per year ( approximately once per six months ). Periodical inspection should be done with 2 out of 5 regular maintenance. The inspection should include contents as follows at least.

## 1) Burner maintenance

- Cleaning the burner head
- Cleaning the nebulizer and the tube ( the tube should be replaced as necessary )
- Cleaning the chamber

## 2) Furnace maintenance

- Cleaning graphite cap, holder and other related accessories
- Cleaning the temperature sensor
- Cleaning the graphite tube ( should be replaced as necessary )

## 3) Atomizer positioning adjustment

- Burner positioning adjustment
- Furnace positioning adjustment

## 4) Replacing the deuterium lamp as necessary

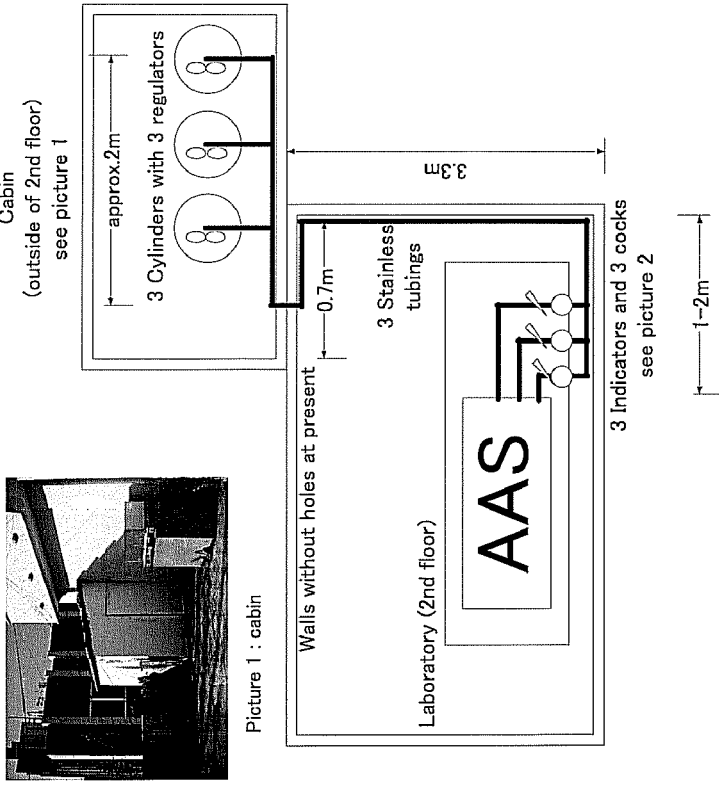
## 5) Checking for gas leaks in tubing

S/76

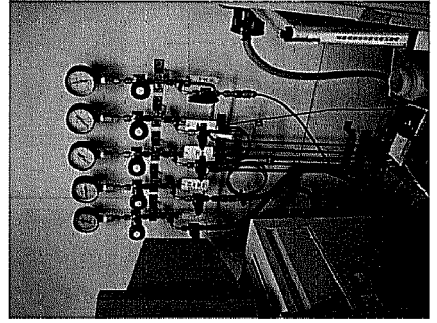
S/76



Attachment 2 : Rough sketch for gas pipes

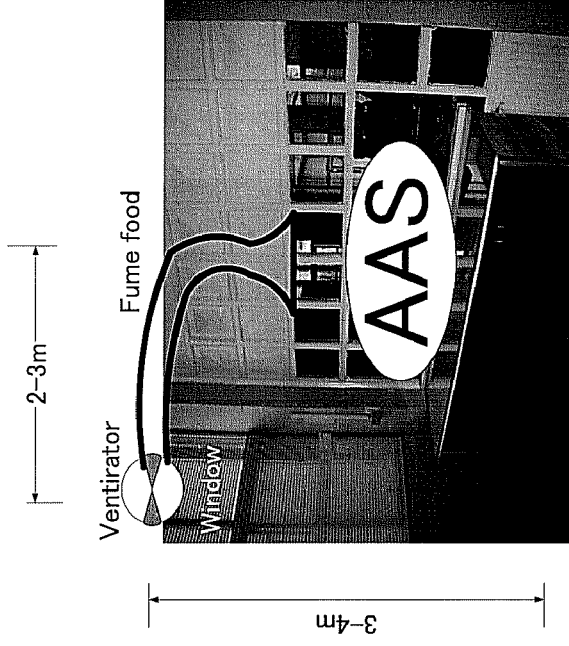


Picture 2 : Example of indicators and cocks



*Sabo*

Attachment 3 : Rough sketch for a fume food



cabin seen through window



lab table for AAS

Picture 3 : Lab for AAS

*Sabo*

Quotation Table for metals analysis apparatus for JICA

Agency : \_\_\_\_\_

No.	Name	Specification	Spec Note	Unit price (US\$)	Qty	Sub total
1	Beaker	Glass, Griffin squat form, 100mL			60	
		Glass, Griffin squat form, 150mL			30	
		PTFE, Griffin squat form, 100mL			40	
		Polypropylene, Griffin squat form, 500-600mL			10	
2	Bottle	Polypropylene or HDPE, white, screw closure (leak-proof), rectangle, with handle, 20L			4	
		Polypropylene or HDPE, white, screw closure (leak-proof), wide neck,			200	
		Polypropylene or HDPE, white, screw closure (leak-proof), wide neck,			30	
		Polypropylene or HDPE, white, round-shaped, screw closure (leak-proof), 1000mL			500	
		Polypropylene or HDPE, white, round-shaped, screw closure (leak-proof),			20	
3	Brush	φ 10 to 12 mm			10	
		φ 16 to 25 mm			10	
4	Bucket	Polypropylene or HDPE, with pouring spout and rigid handle			3	
		Polypropylene or HDPE, rectangular shape, 250 * 180 * 150 mm or larger in total			3	
5	Cylinder	Glass, spouted, 50mL, grads. 1mL, tolerance ±0.25mL			4	
		Glass, spouted, 100mL, grads. 1mL, tolerance ±0.5mL			4	
		Glass, joint and stopper, 100mL, grads. 1mL			30	
6	Eye protection	Polycarbonate, with clear lenses, browguard and hinged sidearms, can be worn over spectacles, large			2	
		Polycarbonate, with clear lenses, browguard and hinged sidearms, can be worn over spectacles, medium			3	
7	Face mask	Disposable, with metal nose piece, standard sized			200	
8	Filtration paper	Cellulose, pore size 2.7um or similar, φ 90-110mm, hardened (high wet strength and chemical resistance), ashless (<0.01%ash), 100pcs/pack			4	
		Cellulose, pore size 8um or similar, φ 90-110mm, hardened (high wet strength and chemical resistance), ashless (<0.01%ash), 100pcs/pack			2	
		Cellulose, pore size >10um, 460*570mm or similar, cellulose,			200	

1 of 3

9	Flask	Glass, Erlenmeyer, wide neck, graduated, 250mL, clear			30	
		Glass, Erlenmeyer, narrow neck, graduated, 300mL, clear, stoppered or screw cap			3	
		Glass, volumetric, 50mL, tolerance ±0.06mL or better, clear, joint and stopper			10	
		Glass, volumetric, 100mL, tolerance ±0.1mL or better, clear, joint and stopper			40	
		Glass, volumetric, 200mL, tolerance ±0.15mL or better, clear, joint and stopper			6	
		Glass, volumetric, 500mL, tolerance ±0.25mL or better, clear, joint and stopper			10	
		Glass, volumetric, 1000mL, tolerance ±0.4mL or better, clear, joint and stopper			3	
		Polymethylpentane or polypropylene, volumetric, 100mL, limit of error 0.16mL or better, clear or half-clear, joint and stopper			20	
		10	Funnel	Polypropylene, φ 60mm or similar		
Polypropylene, φ 150mm or similar					5	
11	Glove	Polyethylene, disposable, textured surface, non-sterile, medium,			3	
		Latex, disposable, examination, lightly powdered or powder free, non-sterile, medium, 100pcs/pack			5	
		Neoprene, long (elbow-length), acid resistant, abrasion and puncture resistant, large			2	
12	Hot plate	Ceramic, 200-250 * 200-250mm, with temperature control (ambient to 300°C or more)			3	
13	Indicator paper (pH)	Dispenser reel, 5m long * 6mm wide or similar, with reference chart showing color changes. pH range 1-11 or wider			4	
14	Label tape	Paper, roll, self-adhesive, dimensions 24 * 12.5mm or similar, 100pcs/pack			20	

2 of 3

15	Pipette	Polyethylene, graduated, Pasteur, capacity 3-5mL, 500pcs/pack			1	
		Glass, graduated, 1mL, grads. 0.01mL, tolerance $\pm 0.006$ or better			4	
		Glass, graduated, 2mL, grads. 0.02mL, tolerance $\pm 0.01$ or better			6	
		Glass, graduated, 5mL, grads. 0.05mL, tolerance $\pm 0.03$ or better			6	
		Glass, graduated, 10mL, grads. 0.1mL, tolerance $\pm 0.05$ or better			6	
		Glass, graduated, 25mL, grads. 0.2mL, tolerance $\pm 0.1$ or better			4	
		Glass, one mark (whole), 1mL, tolerance $\pm 0.008$ mL or better			6	
		Glass, one mark (whole), 2mL, tolerance $\pm 0.01$ mL or better			4	
		Glass, one mark (whole), 5mL, tolerance $\pm 0.015$ mL or better			4	
		Glass, one mark (whole), 10mL, tolerance $\pm 0.02$ mL or better			4	
		Glass, one mark (whole), 20mL, tolerance $\pm 0.03$ mL or better			4	
16	Pipette filler	Molded rubber bulb, approx. 60mL capacity, 3 glass ball valves, suitable for pipettes of 2-25mL or wider			3	
		Plastic, capacity 0.5-2mL or wider, standard release speed			2	
		Plastic, capacity 2-10mL or wider, standard release speed			2	
		Plastic, capacity 10-25mL or wider, standard release speed			2	
17	Pipette jar	Plastic, $\phi$ 80 height 420 (cylinder) or larger			2	
18	Pipette stand	Plastic, horizontal, holding 6 or more			4	
		Plastic, vertical, holding 20 or more, for drying and storage			3	
19	Sealing film	width 100mm length 30m or longer, can be enlarged as much as 10 or more times the original area			2	
20	Soak jar	Plastic container, acid resistant, 50-80L			1	
21	Tray	Plastic, shallow, 450 * 350 * 30 mm or similar			20	
		Plastic, rigid, 400 * 300 * 70 mm or similar			10	
		Plastic, rigid, 600 * 350 * 150 mm or similar, suitable for the soak jar			10	
22	Trolley	Plastic or plastic coated, two or more shelves, with casters, 850(w) * 1000(d) * 850(h) mm or similar			2	
23	Wash bottle	Polyethylene, narrow neck, leak-proof, with rinser tube, imported, 1000mL			10	
24	Watch glass	Glass, rigid, 65-75mm			40	
		PTFE, 65-75mm			40	
25	Freight				1	
26	Customs	Customs duty, clearance are for imports. Delivery is to Damascus DFEA in			1	
27	Customs clearance	Jaubar. If these expenses are included in the prices mentioned above, write "0" to fill up .			1	
28	Delivery				1	
Total						

3 of 3

### Quotation Table for metals analysis reagents for JICA

Agency : \_\_\_\_\_

No.	Name	Specification	Spec Note	Unit	Quantity	Unit price (US\$)	Sub total
1	Nitric acid, HNO <sub>3</sub>	solution, conc (65%), trace analysis grade		2.5L	20L		
2	Nitric acid, HNO <sub>3</sub>	solution, 60%, lowest grade		2.5L	30L		
3	Potassium permanganate, KMnO <sub>4</sub>	extra pure / trace analysis grade		500g	1,000g		
4	Potassium persulfate, K <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	extra pure / trace analysis grade		500g	500g		
5	Sodium chloride, NaCl	extra pure / trace analysis grade		1,000g	2,000g		
6	Hydroxylamin sulfate (Hydroxylammonium sulfate), (NH <sub>2</sub> OH) <sub>2</sub> · H <sub>2</sub> SO <sub>4</sub>	analytical or reagent grade		250g	1,500g		
7	Stannous chloride (Tin(II) chloride), SnCl <sub>2</sub>	reagent or extra pure grade		1,000g	1,000g		
8	Stannous sulfate (Tin(II) sulfate), SnSO <sub>4</sub>	reagent or extra pure grade		1,000g	1,000g		
9	Sulfuric acid, H <sub>2</sub> SO <sub>4</sub>	solution, conc (95-98%), extra pure or trace analysis grade		2.5L	5L		
10	Manganese perchlorate, Mg(ClO <sub>4</sub> ) <sub>2</sub>	lowest grade		1,000g	1,000g		
11	Hydrochloric acid, HCl	solution, conc (37%), extra pure or trace analysis grade		2.5L	7.5L		
12	Sodium borohydride, NaBH <sub>4</sub>	analytical or trace metals grade		100g	100g		
13	Sodium hydroxide, NaOH	pellets, analytical or extra pure grade		1,000g	1,000g		
14	Sulfanilamide, C <sub>6</sub> H <sub>5</sub> N <sub>2</sub> SO <sub>2</sub>	analytical or extra pure grade		250g	250g		
15	Freight	Customs duty, clearance are for imports. Delivery is to		1 set	-		
16	Customs duty	Damascus DFEA in Jaubar. If these expenses are		1 set	-		
17	Customs clearance	included in the prices mentioned above, write "0" to fill		1 set	-		
18	Delivery	up .		1 set	-		
Total							

**Minutes of Meeting  
On  
The 10th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates  
For  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 20 August 2006

The 10th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 20 August, 2006 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by an opening statement by the General Director of GCEA, Dr. Akram S. Al Khoturi. Then, the following 3 themes were presented and shared among all attendants;

1. Brief Explanation of the Mid-term Evaluation: by Dr. Mitsuo Yoshida,
2. Presentation of Current Condition of DFEAs: by Director of each DFEA, and
3. General Comment: by the JICA Expert Team.

An attendant list and agenda of the 10th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

At first, the Team Leader of JICA Mid-term Evaluation Team, Dr. Mitsuo Yoshida, presented major findings concerning to achievement of the Project obtained from a series of interviews and field visits to GCEA and DFEAs. Key findings presented are as follows;

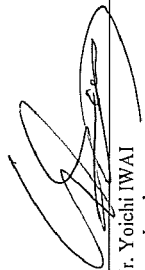
- a) Component-1:
  - Achievement level A and level B is 14 and 61 in total 88 lab staff in DFEAs,
  - On-site training is generally recommended,
  - Some problem on English-Arabic interpretation is found at Damascus DFEA, and
  - Lack of compensation system is one of obstacles for shortage of lab staff in DFEAs.
- b) Component-2:
  - Safety issues should be focused on lab management in DFEAs,
  - Insufficient running cost especially for fuel of cars for sampling activities is often found in DFEAs, and
  - Aleppo DFEA is facing difficulties for staff recruitment.
- c) Component-3:
  - Monitoring data accumulation and management is carried out only in each DFEA due to incompleteness of networking system between GCEA and DFEAs.
- d) Component-4:
  - Authorization activities with the Atomic Energy Commission (AEC) are on-going in three DFEAs (Damascus, Homs, and Lattakia) by GCEA's initiative, which could be crucial for activation of administrative enforcement to polluters by GCEA and DFEAs, and
  - Establishment of an Environmental Quality Standard for public water bodies is indispensable when DFEAs intend effectively to monitor water quality of rivers, lakes, and groundwater.
- e) Component-5:
  - The National Committee for Public Awareness is defined as a central level policy making and planning authority, and
  - Public awareness activities should be focused on polluters in industrial sector.

Dr. Akram S. Al Khoturi,  
General Director  
General Commission for Environmental  
Affaires

Witnessed by



Dr. Mitsuo YOSHIDA  
Team Leader  
JICA Mid-term Evaluation Team



Mr. Yoichi IWAI  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

List of AttendantsThe 10th Technical CommitteeSyrian Side

Name	Position	Organization
Dr. Akram Khouri	General Director	GCEA
Dr. Yasin Moa'alla	Director	Directorate of Laboratories, GCEA
Ms. Fathia Mohammad	Staff	Directorate of Laboratories, GCEA
Ms. Khozama Abo Saab	Staff	Directorate of Laboratories, GCEA
Ms. Wadia Joha	Deputy Director	Damascus DFEA
Mr. Thaer Daif	Director	Damascus Countryside DFEA
Mr. Saïd Naïfous	Director	Aleppo DFEA
Mr. Suleïman Kalo	Director	Homs DFEA
Mr. Ali Jwaïed	Director	Hama DFEA
Ms. Lama Ahmad	Director	Lattakia DFEA
Mr. Mohammad Amin Ramadan	Director	Deir ez Zor DFEA
Ms. Jumana A lhasan	Director	Idleb DFEA
Ms. Raefia Esper	Director	Hasakeh DFEA
Ms. Shamssa Aljaseem	Director	Rakka DFEA
Dr. Motasem Abed	Director	Sweida DFEA
Ms. Fatema Hariri	Director	Dara'a DFEA
Mr. Hasan Marjan	Director	Tartous DFEA
Mr. Hamzeh Soliman	Director	Quneitra DFEA

Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Dr. Mitsuo Yoshida	Team Leader	JICA Mid-term Evaluation Team
Ms. Eiko Kojima	Member	JICA Mid-term Evaluation Team
Mr. Akitoshi Iio	Member	JICA Mid-term Evaluation Team
Mr. Yoichi Iwai	Chief Advisor	JICA Expert Team

Then, Directors of all (14) DFEAs presented current situation, achievement, and problem of environmental monitoring activities one by one. The following major issues raised by the Directors discussed and agreed among the attendants of the 10<sup>th</sup> T/C.

- 1) In the basic water quality analysis, more training focusing on quality control, law range concentration analysis, and interpretation of monitoring data is necessary.
- 2) More training on reagents management such as toxic and hazardous ones, expiry date, stock control is required based on the Operation and Maintenance (O/M) manuals.
- 3) Training on air quality monitoring should be intensified using newly provided equipment in the target DFEAs (Damascus, Homs, and Aleppo).
- 4) Cost recovery measures of lab activities and O/M should be considered in order to ensure continuation and sustainability of them.
- 5) A target of public awareness activities should be shifted to polluters for effective use of the obtained monitoring data.
- 6) All DFEAs are ready for further capacity development activities taking step by step approach, and look forward receiving next technical cooperation projects.

After the specific discussion mentioned above, the Chief Advisor of the JICA Expert Team, Mr. Yoichi Iwai, presented a general comment related to key factors for the Project management. The followings are major points commented.

- a) Key Factors of Environmental Monitoring Activities:
  - It consists of Technical Skills, Human Resources, and Institutional Set-up, and
  - Current key factors could be QA/QC system, National and Regional Environmental Monitoring Plan, Motivation and incentive to counterparts, and Clarification of mandate and job description.
- b) Key Factors for Project Management:
  - Careful planning and management,
  - Keen to regional needs,
  - Initiative and activation of the Project,
  - Share and collaboration with others concerned, and
  - Feedback and accountability.
- c) Key Factors for Project Sustainability:
  - Overall planning related to environmental monitoring,
  - Implication with inspection and EIA system in Syria,
  - Balance between capacity and equipment,
  - Public awareness to polluters through the Chamber of Industry, and
  - Careful management by GCEA.

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

**Minutes of Meeting  
On  
The 11th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates  
For  
Environmental Affairs in Governorates in the Syrian Arab Republic**


## Date and Venue:

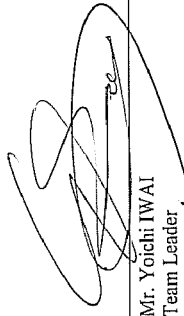
- Aug 20<sup>th</sup> (Sun), 11:30-14:30: at meeting room in GCEA

Damascus, 4 September 2006

## Agenda:

1. Opening Remarks (by Dr. Akram, General Director of GCEA)  
11:30-11:35
2. Brief Explanation of the Mid-term Evaluation (by Dr. Yoshida, JICA) 11:35-12:00
3. Presentation by each DFEA and Discussion with the Joint Evaluation Team  
12:00-14:20
  - 3.1 Director of Hasakh DFEA (12:00-12:10)
  - 3.2 Director of Deir ez Zor DFEA (12:10-12:20)
  - 3.3 Director of Rakka DFEA (12:20-12:30)
  - 3.4 Director of Aleppo DFEA (12:30-12:40)
  - 3.5 Director of Idlib DFEA (12:40-12:50)
  - 3.6 Director of Lattakia DFEA (12:50-13:00)
  - 3.7 Director of Tartous DFEA (13:00-13:10)
  - 3.8 Director of Hama DFEA (13:10-13:20)
  - 3.9 Director of Homs DFEA (13:20-13:30)
  - 3.10 Director of Damascus DFEA (13:30-13:40)
  - 3.11 Director of Damascus Countryside DFEA (13:40-13:50)
  - 3.12 Director of Dara'a DFEA (13:50-14:00)
  - 3.13 Director of Sweida DFEA (14:00-14:10)
  - 3.14 Director of Quneitra DFEA (14:10-14:20)
4. General Comment by the JICA Expert Team 14:20-14:30
5. Closing Remarks (by Dr. Akram, General Director of GCEA) 14:30-

  
Dr. Akram S. Al Khouri  
General Director  
General Commission for Environmental  
Affaires

  
Mr. Yoichi IWAI  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

End




ANNEX-1

List of Attendants  
**The 11th Technical Committee**

Syrian Side

Name	Position	Organization
Dr. Akram Khouri	General Director	GCEA
Dr. Yasin Mozalla	Director	Directorate of Laboratories, GCEA
Ms. Khozama Abo Saab	Staff	Directorate of Laboratories, GCEA
Mr. Shaka Soliman	Chief	Information Unit, GCEA

Japanese Side

Name	Position	Organization
Mr. Yoichi Iwai	Chief Advisor	JICA Expert Team
Mr. Shinsuke Sato	Team Member	JICA Expert Team
Mr. Minoru Hirao	Team Member	JICA Expert Team
Mr. Mohammed Doubosh	Interpreter	JICA Expert Team

The 11th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 4 September, 2006 at the meeting room in the General Commission for Environmental Affairs (GCEA). The main purpose of the 11th T/C is to discuss the contents of the Progress Report (3) prepared by the JICA Expert Team.

An attendant list and agenda of the 11th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

After the specific discussion on the Progress Report-3, the Syrian side received the following set of Report.

- 1) Progress Report (3) (English version) : 25 copies
- 2) Progress Report (3) (Arabic version) : 25 copies



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

**Agenda for the 11<sup>th</sup> Technical Committee**

**Date and Venue:**

- Sept 4<sup>th</sup> (Mon), 11:30-12:30; at meeting room in GCEA

**Agenda:**

- |   |                    |
|---|--------------------|
| <b>1. Opening Remarks (by Dr. Akram, General Director of GCEA)</b>  | <b>11:30-11:35</b> |
| <b>2. Presentation of Progress Report-3 (by JICA Expert Team)</b><br>-results of the mid-term evaluation based on M/M<br>-progress of the Project based on the Pr/R-3<br>-implementation of study tour<br>-plan of operation of Project works for coming period | <b>11:35-12:00</b> |
| <b>3. Discussion</b>  | <b>12:00-12:30</b> |
| <b>4. Closing Remarks (by Dr. Akram, General Director of GCEA)</b>  | <b>12:30-</b>      |

*End*

**Minutes of Meeting  
On  
The 12th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates  
For  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 09 November 2006

Dr. Akram S. Al-Khour  
General Director  
General Commission for Environmental  
Affairs

Mr. Yoichi IWATA  
Team Leader  
The Expert Team  
Japan International Cooperation Agency



The 12th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 9 November, 2006 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by the opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri, and follows the opening remarks by the Director of JICA Headquarters, Mr. Kiyoshi Masumoto. Then, the following 3 themes were presented and shared among all attendants;

1. The Next 5-year Plan on Environment and Project Management: by Dr. Akram S. Al Khouri,
2. Presentation of Progress and Problems of the Project: by Directors of Damascus, Damascus Countryside, and Sweida DFEAs, and
3. Plan of Operation of the Project: by the JICA Expert Team.

An attendant list and agenda of the 12th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

At first, the General Director of GCEA, Dr. Akram S. Al Khouri, presented a future plan on environmental management and monitoring in Syria based on the 10<sup>th</sup> 5-year plan, and also announced management activities of the Project have been conducted by GCEA.

Secondly, representatives of the three (3) DFEAs (Damascus, Damascus Countryside, and Sweida) presented current situation of the Project. Key findings presented are as follows;

(a) Damascus DFEA (presented by Deputy Director, Ms. Wadia'a Jeha Khouri)

- Activities have been conducted recognizing a role as a central lab among 14 DFEAs,
- Monitoring has been carried out for selected priority factories with proper frequency,
- Quality control activity is on going based on the QC program of the Atomic Energy Commission (AEC),
- DFEA continues to solve some troubles in equipment and reagents, and
- Currently, no serious problems are found.

(b) Damascus Countryside DFEA (presented by Director, Mr. Thaeir Daif)

- Monitoring activities have been properly carried out for major factories, but still not enough due to huge amount of factory numbers in Governorate,
- Besides the training made by JICA Expert Team, DFEA is conducting lab staff training additionally using other resources,
- Authorization of lab is urgent matter for effective use of monitoring data, and
- Difficulties are found for procurement of spare parts such as bottles for BOD due to limited market in Syria.

(c) Sweida DFEA (presented by Deputy Director, Mr. Ref'at Khodr)

- Monitoring activities have been properly carried out for various kind of water bodies in Governorate,
- DFEA just introduced instruments to measure bacteria to check contamination of water resources for drinking purpose, and its training is on contracting procedure,
- Difficulties are authorization of lab, limited staff numbers, and not enough space of lab, but no serious problems are not found at present, and
- DFEA requests to the JICA Expert Team to consult new instruments and equipment related to environmental monitoring to be procured by DFEA.

Then, the Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, presented a plan of operation of the current working stage.

After that, the attendants discussed and commented the presentations mentioned above. The following major issues are discussed and agreed among the attendants of the 12<sup>th</sup> T/C.

- (1) The Director of Directorate of Laboratories in GCEA, Dr. Yasin Moa'la, additionally presented a current situation of procurement of wastewater treatment plant for Damascus DFEA mentioning that GCEA prepared a tender document and is now waiting offers from suppliers. Dr. Yasin Moa'la announced that it will be fixed within December 2006.
- (2) The Director of DFEA in Homs, Mr. Suleiman Kalo, informed that any project activities can not be conducted in November because Homs DFEA plans to move now building. The Team Leader of the JICA Expert Team, Yoichi Iwai, replied that the draft training schedule should be rearranged based on the actual moving schedule of Homs DFEA.
- (3) The Director of DFEA in Hama, Mr. Ali Jwaied, proposed that a flexible participation to the training conducted by the JICA Expert Team should be allowed to the counterparts who are not in target DFEA. The Team Leader of the JICA Expert Team, Yoichi Iwai, commented that it is welcome to the counterparts, if they want.
- (4) The Director of DFEA in Damascus Countryside, Mr. Thaeir Daif, requested more training to his DFEA based on extensive demands of environmental monitoring. The Team Leader of the JICA Expert Team, Yoichi Iwai, replied that the JICA Expert Team will conduct training activities as much as reflecting characteristics of environmental background of each DFEA.
- (5) The Lab Chief of DFEA in Lattakia, Ms. Ammal Mrehej, questioned about the training of heavy metal analysis using AAS. The Team Leader of the JICA Expert Team, Yoichi Iwai, replied that the JICA Expert Team will guide the counterparts considering their basic knowledge and background, and will visit DFEA in Lattakia as much as possible.

- (6) The Staff of JICA Headquarters, Ms. Eriko Tamura, commented the importance of trainers training for ensuring sustainability of the Project. All attendants agreed to take care the Project sustainability.

ANNEX-1

List of Attendants

The 12th Technical Committee

Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouri	General Director	GCEA
Dr. Yasin Moa'Jila	Director of Directorate of Laboratories,	GCEA
Ms. Fathia Mohammed	Deputy Director of Directorate of Laboratories,	GCEA
Ms. Khozama Abo Saab	Staff, Directorate of Laboratories,	GCEA
Mr. Mohammed Younes	Staff, Directorate of Laboratories,	GCEA
Ms. Manal Alsakka	Director of EIA Directorate,	GCEA
Mr. Bassam Kheir Beik	Director	Damascus DFEA
Ms. Wadia'a Jeha Khouiri	Deputy Director	Damascus DFEA
Ms. Riem Sadr Alden	Laboratory Chief	Damascus DFEA
Mr. Thaeir Daif	Director	Damascus Countryside DFEA
Mr. Saaid Maifous	Director	Aleppo DFEA
Mr. Suleiman Kalo	Director	Homs DFEA
Mr. Ali Jwaied	Director	Hama DFEA
Ms. Ammal Mrehej	Laboratory Chief	Latakia DFEA
Mr. Saheer Abdollah	Laboratory Chief	Deir ez Zor DFEA.
Mr. Sameer Daboul	Laboratory Chief	Idlib DFEA.
Ms. Shamsa Aljaseem	Director	Rakka DFEA
Mr. Refat Khodr	Deputy Director	Sweida DFEA
Ms. Fatema Hariri	Director	Dara'a DFEA
Ms. Rowdaina Al-Ali	Laboratory Chief	Tartus DFEA
Mr. Majed Zaitoun	Laboratory Chief	DFEA Quneitra

Japanese Side

Name	Position	Organization
Mr. Kiyoshi Masumoto	Member of JICA Mission	JICA Head office
Ms. Eriko Tamura	Member of JICA Mission	JICA Head office
Mr. Atsuo Fuyama	Member of JICA Mission	JICA Team
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Ms. Marah Morad	Program Officer.	JICA Syria Office
Mr. Yoichi Iwai	Team Leader	JICA Expert Team
Dr. Ryuran Matsue	Team Member	JICA Expert Team
Mr. Mohammed Alhoubosh	Interpreter	JICA Expert Team

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

**Minutes of Meeting  
On  
The 13th Technical Committee**

**For  
The Capacity Development of Environmental Monitoring at Directorates**

**For  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 21 February 2007

**Agenda for the 12<sup>th</sup> Technical Committee**

**Date and Venue:**

- November 9<sup>th</sup> (Thu), 11:00-13:00: at meeting room in GCEA

**Agenda:**

- |   |             |
|---|-------------|
| 1. Opening Statement (by Dr. Akram, General Director of GCEA,<br>and by Mr. Masumoto, Group Leader of JICA Tokyo)   | 11:00-11:05 |
| 2. Presentation of the Next 5-year Plan on Environment,<br>and Project Management (by Dr. Akram, GCEA)  | 11:05-11:20 |
| 3. Presentation of Progress and Problems of the Project<br>(by Damascus, Damascus Countryside, Sweida DFEAs)<br>-current situation of environmental monitoring activities<br>-progress and problems of the Project<br>-comments and requests on the Project | 11:20-12:00 |
| 4. Presentation of the Plan of Operation of the Project (Nov. to Feb)<br>(by JICA Expert Team)  | 12:00-12:20 |
| 5. Discussion   | 12:20-13:00 |
| 6. Closing Remarks (by Dr. Akram, General Director of GCEA)   | 13:00-      |

*End*

Dr. Akram S. Al Khouri  
General Director  
General Commission for Environmental  
Affaires

Mr. Yoichi IWAI  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

The 13th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 21 February, 2007 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by the opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. Then, the following 3 themes were presented and shared among all attendants;

1. Progress of the Project: by the Representatives of Hasakah, Aleppo and Tartous DFEAs,
2. Summary of the Project Evaluation: by Dr Nidal Al Kassem, and
3. Presentation of the Progress Report (4): by the JICA Expert Team.

An attendant list and agenda of the 13th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

At first, the representatives of the three (3) DFEAs (Hasakah, Aleppo, and Tartous) presented current progress of the Project including actual analysis data and results of the environmental monitoring. Key findings presented are as follows;

(a) Hasakah DFEA (presented by Lab Chief, Ms. Nawwaf Othman)

- Monitoring activities have been conducted well though little shortage of fuel for a sampling car,
- Some water bodies for drinking purpose are over the standard around 8 times,
- Discharged wastewater from several factories also exceeded the standard about 60 times, and
- Hasakah DFEA ready prepared an annual report in 2006.

(b) Aleppo DFEA (presented by Director, Mr. Saeid Naiffous)

- Among 24 staff, only six (6) staff are engaging in the monitoring activities due to shortage of the total number of staff in DFEA,
- Monitoring stations are 16 for factories, 2 for municipal sewage, and 2 for groundwater,
- The data revealed that most factories have been discharging wastewater not complying the discharge standard especially pharmaceutical and tannery industries,
- Monitoring activities are not enough because almost 40 % of factories in Syria are concentrated in Aleppo,
- DFEA is sometimes requested a presentation in the Environmental Committee of the Governorate, and
- Difficulties are shortage of the staff and less incentive to the staff.

(c) Tartous DFEA (presented by Lab Chief, Ms. Rowdaina Al-Ali)

- River pollution by wastewater from olive oil factories is the most serious problem,
- COD values of the polluted river water are more than 300 mg/l,

- Samples for analysis are concentrated in some specific period due to the seasonal operation of the factories, and

- Tartous DFEA is mostly consuming reagents and chemicals for low concentration values.

Then, Dr. Nidal Al Kassem, local expert for project evaluation, presented a summary of project evaluation results conducted by GCEA and DFEAs by themselves. Key findings presented are as follows;

- Generally, the result shows a positive outcome of the Project activities among C/Ps,
- Wide ranges differences are often found in the results of self-evaluation of C/Ps,
- Few discrepancy of evaluation results between Directors and C/Ps can be found, and
- C/Ps are understanding the importance of lab management.

Finally, the Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, presented a content of the Progress Report (4) briefly.

After that, the attendants discussed and commented the presentations mentioned above. The following major issues are discussed and agreed among the attendants of the 13<sup>th</sup> T/C.

- (1) The Director of Water Safety in GCEA, Ms. Reem Abed Rabbo, commented that GCEA should clarify the objectives of national environmental monitoring plan in order to obtain more useful monitoring data from DFEAs. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that GCEA has prepared a long term vision on environmental monitoring up to 2010 and a plan for procurement of further equipment is in line with the plan. Dr. Akram S. Al Khouri also mentioned that the Project is one of activities to be carried out by GCEA as a manner of step by step approach.
- (2) The Director of DFEA in Aleppo, Mr. Saeid Naiffous, and in Hama, Mr. Ali Jwaied, requested to GCEA for further coordination in dealing with environmental issues with the Environmental Committee in each Governorate including environmental monitoring activities. The General Director of GCEA, Dr. Akram S. Al Khouri, answered that GCEA has conducted such coordination activities based on report and information brought by DFEAs, and GCEA is always ready for coping with such coordination with the Governor and the Governor Office in each Governorate.
- (3) The General Director of GCEA, Dr. Akram S. Al Khouri, commented that DFEA should fulfill its mandate given by the laws focusing on technical and administrative issues not on political matters. In this context, it is necessary for further communication with polluters through the Chamber of Industry to control pollution load in environment.
- (4) The Director of Water Safety in GCEA, Ms. Reem Abed Rabbo, emphasized the importance of

List of Attendants**The 13th Technical Committee**Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouri	General Director	GCEA
Dr. Yasin Moa'Jla	Director of Directorate of Laboratories	GCEA
Ms. Fathia Mohammed	Deputy Director of Directorate of Laboratories	GCEA
Ms. Khizama Abo Saab	Staff, Directorate of Laboratories	GCEA
Dr. Nader Ghazi	Director of Public Awareness Dept.	GCEA
Ms Manal Alsakka	Director of EIA Dept	GCEA
Ms. Reem Abed Rabbo	Director of Water Safety	GCEA
Mr. Basel Alberrny	Atmosphere Safety Dept	GCEA
Ms. Wadia'a Jeha Khouri	Deputy Director of Damascus DFEA	Damascus DFEA
Ms. Riem Sadr-Alden	Chemist	Damascus DFEA
Mr. Thaer Daif	Director of Damascus Countryside DFEA	Damascus Countryside DFEA
Mr. Saaid Naifous	Director of Aleppo DFEA	Aleppo DFEA
Mr. Suleiman Kalo	Director of Homs DFEA	Homs DFEA
Mr. Ali Jwaied	Director of Hama DFEA	Hama DFEA
Ms. Yamen Slman	Laboratory Staff	Latakia DFEA.
Ms Jumana Hasin	Director of Idleb DFEA	Idleb DFEA.
Mr. Refiat Khador	Lab Chief	Hasakeh DFEA
Mr. Nawwaf Othman	Deputy Director of Sweida DFEA	Sweida DFEA
Eng. Humam Abu Raeed	Lab Staff	Sweida DFEA
Eng. Wael Abu Ganem	Data & Network Management	Sweida DFEA
Ms. Fatema Hariri	Director	Dara'a DFEA
Ms. Rowdaina Al-Ali	Laboratory Chief	Tartus DFEA
Mr. Hamzeh Soliman	Director of Environment	DFEA Quneitra

Japanese Side

Name	Position	Organization
Mr. Yoichi Iwai	Team Leader	JICA Expert Team
Mr. Shunsuke Sato	Member, JICA Expert Team	Member, JICA Expert Team
Mr. Keiich Takahashi	Member, JICA Expert Team	Member, JICA Expert Team
Mr. Mohtanmed Aldoubosh	Interpreter, JICA Expert Team	Interpreter, JICA Expert Team
Mr. Wasim Kabbesh	Interpreter, JICA Expert Team	Interpreter, JICA Expert Team
Dr. Nidal Al Kassem	Local Expert of Project Evaluation	JICA Expert Team

1) preparation of an integrated data base of environmental monitoring, 2) empowerment on QA/QC activities in labs, 3) improvement of a reporting system to GCEA. The Team Leader of the JICA Expert Team, Yoichi Iwai, commented that it is quite agreeable with what Ms. Reem Abed Rabbo referred, and that we are now in ready for starting such discussion based on actual activities of labs through the Project.

(5) The Deputy Director of DFEA in Damascus, Ms. Wadia'a Jeha Khouri, informed that EU will support Syria to introduce the ISO system including ISO 17025 and QA/QC in labs should be strengthened using such assistance either. Ms. Wadia'a Jeha Khouri also requested the JICA Expert Team for 1) more training on air quality monitoring and data management, 2) support for air quality monitoring network in Damascus, and 3) preparation of sample and wastewater transportation system to Damascus DFEA including unit fee for analysis and treatment. The Team Leader of the JICA Expert Team, Yoichi Iwai, replied that the JICA Expert Team will support and conduct the Damascus DFEA's request as much as possible.

(6) The Deputy Director of DFEA in Sweida, Mr. Refiat Khador, questioned to the JICA Expert Team about possibility of training on bacteriological analysis and on usage of AAS/ GC in Sweida DFEA. The Team Leader of the JICA Expert Team, Yoichi Iwai, answered that it is difficult to include such training in this Project, but it could be possible in the Second Phase of the Project though it is a matter of discussion between the Syrian Government and the Japanese Government.

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

**Agenda for the 13<sup>th</sup> Technical Committee**

**Date and Venue:**

- February 21 (Wed), 12:30-14:00: at meeting room in GCEA

**Agenda:**

1. Opening Statement (by Dr. Akram, General Director of GCEA, 12:30-12:35)
2. Presentation of Progress and Problems of the Project (by Hasakh, Aleppo, Tartous DFEAs) 12:35-13:30
  - current situation of environmental monitoring activities
  - progress and problems of the Project
  - comments and requests on the Project
3. Summary Presentation of the Project Evaluation (by Dr. Nidal, the Local Expert) 13:30-13:50
4. Presentation of the Progress Report No.4 (by the JICA Expert Team) 13:50-14:10
5. Discussion 14:10-14:30
6. Closing Remarks (by Dr. Akram, General Director of GCEA) 14:30-

*End*



**Attendants List for the 13<sup>th</sup> Technical Committee**

Date: February 21<sup>st</sup>, 2007 (Wednesday)

*Dr. Akram*


*Dr. Yaseen*

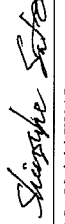
No.	Name	Authority and Job Description
1	Refaat Khodor	Manager assistant/Sweidi
2	Houmam aburazeed	Laboratory manager assistant Sweida
3	Wael abughnamem	Data and network management Sweida
4	<i>Yasser slman</i>	Latakia department
5	Nazawa fochman	chef of lab, HSK
6	ROUSINA ALAKH	chef of lab, TAR
7	MANAL AL SAKKA	Head of EIA Department
8	<i>Wadia Jela</i>	Assistant Director of Environment affairs
9	<i>Reem Sadder Aldeh</i>	chimest in DFEA in Dumqus
10	<i>Fahma al qasbi</i>	director of Dumqus
11	<i>Suleiman Kabb</i>	Director of Homs
12	HANZA SOULIMOM	DIRECTOR of QUNAYRA
13	Jumana Haysam	DIRECTOR of IDLEB
14	ALI AL-JUYED	= Hama
15	<i>Tamer Adel</i>	Director of Dumqus County Side Co.
16	Basel ALBERMY	Atmospher safety Department
17	Mohammad Saied Niffous	-Director of environment ALLEppo
18	Nader Chuzi	Director training GCEA
19	Dr. Akram Khouri	General Director of GCEA
20	Dr. yasin Mo'alla	Director of lab Directorate/GCEA
21	<i>Ms. Khozama Abo Sab</i>	labs Directorate/GCEA
22	<i>Ms. Fathia Mohammad</i>	labs Directorate/GCEA
23		



**Minutes of Meeting**  
**On**  
**The 14th Technical Committee**  
**For**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**For**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 22 May 2007

  
~~Dr. Akram S. Al-Khoury~~  
~~General Director~~  
~~General Commission for Environmental~~  
~~Affaires~~

*for*  
  
Mr. Yoichi IWAI  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

The 14th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 22 May, 2007 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by the opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. Then, the following 3 themes were presented and shared among all attendants;

1. Progress of the Project: by the Representatives of Hama DFEA,
2. Activities of the Project from May to September in 2007, and
3. Provision of Future Cooperation with JICA.

An attendant list and agenda of the 14th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

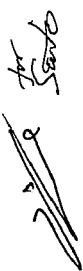
At first, the director of Hama DFEA, Mr. Ali Jwaied, presented current progress and result of the environmental monitoring. Key findings presented are as follows;

- Monitoring has been conducted mostly for wastewater of factories and municipal wastewater,
- Water quality examination is also conducted to cope with some complaints from citizens,
- Lab staff are now capable to obtain reliable monitoring data,
- Hama DFEA was equipped AAS and GC by GCEA as a soil Lab,
- According to the Minister's Decree 2007, all factories are requested to install wastewater treatment facilities by 10 October 2007/05/22. DFEA has a role to check whether the wastewater properly treated or not,
- Since a lot of oil factories are located in Hama, equip for checking oil content is urgently required,
- At present, there is no budget shortage for monitoring, and
- Major constraints are shortage of staff for monitoring and transportation tool for sampling.

Then, the Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, presented major planned activities of the Project up to September 2007.

After that, the attendants discussed and commented the presentations mentioned above. The following major issues are discussed and agreed among the attendants of the 14<sup>th</sup> T/C.

- (1) The Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, commented the following points on the presentation made by Hama DFEA.
  - Activities to cope with complaints from the citizens using monitoring equip should be highly appreciated,
  - DFEA's role to check and inspect wastewater of factories should be more important in order to



comply with the Minister's Decree,

- It is better to include actual monitoring data in the presentation, and
- Information related to factory operation should be included in its inventory.

(2) Director of the Directorate of Laboratories in GCEA, Dr. Yasin Moa'ila, commented that Hama DFEA should procure the equip to measure oil content, and apply to QC program made by AEC.

(3) General Director of GCEA, Dr. Akram S. Al Khouri, suggested the following ideas for the Phase-II of the Project.

- To conduct integrated monitoring and analysis activities in water quality, air quality, and soil,
- To implement a pilot project by selecting specific area or Governorate, not targeting all Governorate, and
- To prepare project a feature for the Phase-II both by MOLAE and by JICA, and to discuss them in detail.

(4) The Project Formulation Advisor in the JICA Syria, Ms. Yumiko Honda, commented to the participants of T/C as follows.

-Further discussion on the Phase-II of the Project should be conducted based on the result of Terminal Evaluation and the policy paper on environment sector of the JICA Syria.

-Presentation and discussion results in T/C must be shared by all DFEAs. In this context, GCEA should arrange to invite all T/C members described in R/D.

-Although the stage enters the last year, the situation of the Project is still under vulnerable. To ensure the running expense for the project activities is crucial to enhance sustainability of the Project. Therefore, the Syrian side is requested to cover it continuously.

(5) Director of the Directorate of Laboratories in GCEA, Dr. Yasin Moa'ila, suggested the importance of close discussion related to the Phase-II in order to avoid discrepancy between JICA and MOLAE.





List of Attendants  
The 14th Technical Committee

Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouiri	General Director	GCEA
Dr. Yasin Maa'ila	Director of Directorate of Laboratories	GCEA
Ms. Fathia Mohammed	Deputy Director of Directorate of Laboratories	GCEA
Ms. Riem Sadr Alden	Laboratory chief	Damascus DFEA
Ms. Mouna Al-Jomaa	Laboratory Chief	Damascus Countryside DFEA
Mr. Ali Jwaied	Director	Hama DFEA
Dr. Motasem Al Abed	Director	Sweida DFEA
Mr. Ahmed Keblawe	Director	Darr'a DFEA
Mr. Hamzeh Soliman	Director of Quneitra DFEA	DFEA Quneitra
Mr. Shaka Al Soleman	Head of IT Unit	GCEA

Japanese Side

Name	Position	Organization
Ms. Yumiko Honda	Project formulation advisor	JICA Syria Office
Mr. Yoichi Iwai	Team Leader	JICA Expert Team
Mr. Shunsuke Sato	Member	Member, JICA Expert Team
Ms. Naomi Wake	JOCV member	JICA Syria Office
Mr. Nawras Khaleel	Program officer	JICA Syria Office
Mr. Mohammed Aldoubosh	Interpreter	Interpreter, JICA Expert Team



Mr Sato

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

Agenda for the 14<sup>th</sup> Technical Committee**Date and Venue:**

- May 22 (Mon), 11:30-13:00; at meeting room in GCEA

**Agenda:**

1. Opening Statement (by Dr. Akram, General Director of GCEA, 12:30-12:35)

2. Presentation by the JICA Expert Team 12:35-12:40

- Study Tour to EEAA (purposes and draft schedule)
- Provision of the Phase-II of the Project
- Major Activities from May - September

3. Presentation of Progress and Problems of the Project

(by Darr'a, Hama, and Quneitra DFEAs) 12:40-13:30

- current situation of environmental monitoring activities
- progress and problems of the Project
- comments and requests on the Project

4. Discussion 13:30-14:00

5. Closing Remarks (by Dr. Akram, General Director of GCEA) 14:00-


End

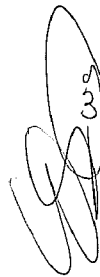


Mr Sato

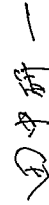
**Minutes of Meeting**  
**On**  
**The 15th Technical Committee**  
**For**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**For**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 31 July 2007

  
~~Dr. Akram S. Al Khouri~~  
~~General Director~~  
General Commission for Environmental  
Affaires

  
Mr. Yoichi Iwai  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

Witnessed by



Mr. Kenichi TANAKA  
Leader  
JICA Terminal Evaluation Mission

The 15th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 31 July, 2007 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by an opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. The following 2 themes were presented and shared among all attendants in the meeting:

1. Explanation of the Terminal Evaluation: by Mr. Kenichi Tanaka, and
2. Presentation of Current Achievement: by Director of each DFEA.

An attendant list and agenda of the 15th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

At first, the Leader of the JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, presented general contents concerning to the terminal evaluation displaying a video tape of other JICA projects. Then, Directors of all (14) DFEAs presented current situation, achievement, and problem of environmental monitoring activities one by one.

After the series of presentation, the following major issues raised, discussed, and agreed among the attendants of the 15<sup>th</sup> T/C.

(1) The General Director of GCEA, Dr. Akram S. Al Khouri, pointed out the followings as common issues to be further discussed during the terminal evaluation.

- 1) Shortage of DFEA staff who have chemical background,
- 2) Preparation of a database of monitoring results, and
- 3) Sustainability of monitoring activities especially for accreditation of DFEA labs, O/M of equipment and reagents, and budget allocation.

(2) The Chief Adviser of the Project, Mr. Yoichi Iwai, commented that a capability of counterparts for preparation of reliable monitoring data and for interpretation and evaluation the data should be strengthened further because these must be a base for database. Mr. Yoichi Iwai suggested that the incentive to counterparts of lab analysis and the continuation of self-training by senior lab staff to junior in DFEAs could be crucial for ensuring sustainability.

(3) The Leader of the JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, mentioned the importance to assign full-time staff for monitoring and lab analysis, and to cope with the electricity problem which affects lab analysis substantially.

(4) The Director of the Directorate of Laboratories, Dr. Yasin Moa'alla, informed that GCEA recently submitted a letter to the Minister of MOLAE to ask for increasing the number of DFEA



staff around 50 persons who have chemical background in 2008. Dr. Yasin Moa'alla also mentioned that GCEA urged all DFEA labs to apply a QC program of AEC and asked them to prepare an annual budget plan of the monitoring activity for the Syrian fiscal year of 2008.

(5) The Leader of the JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, commented that the lab wastewater of DFEAs should be sent and treated properly in the Damascus DFEA. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that GCEA already procured and installed a wastewater treatment plant in the Damascus DFEA, and established a special technical committee to deal with this matter. The Director of the Directorate of Laboratories, Dr. Yasin Moa'alla, informed that the special committee meeting will be held for a final check of the plant on coming 9th August, 2007. In this regard, Dr. Akram S. Al Khouri requested Mr. Shinsuke Sato in charge for the Chemical and Biological Analysis of the JICA Expert Team to attend the committee meeting.

End



List of Attendants  
The 15th Technical Committee

Syrian Side

Name	Position	Organization
Dr. Akram Khouri	General Director	GCEA
Dr. Yasin Moatalla	Director	Directorate of Laboratories, GCEA
Mr. Bassam Khair Bek	Director	Damascus DFEA
Ms. Reem Sadder Aldin	Lab Chief	Damascus DFEA
Mr. Thar Daif	Director	Damascus Countryside DFEA
Ms. Monna Al Jomaa	Lab Chief	Damascus Countryside DFEA
Mr. Saïd Naïffous	Director	Aleppo DFEA
Mr. Suleiman Kalo	Director	Homs DFEA
Mr. Ali Jwated	Director	Hama DFEA
Mr. Yamen Salman	Lab Chief	Latakia DFEA
Mr. Mohammad Amin Rannadan	Director	Deir ez Zor DFEA
Ms. Jumana Alhasan	Director	Idlib DFEA
Ms. Raëfa Espner	Director	Hasakeh DFEA
Ms. Shamsa Aljaseem	Director	Rakka DFEA
Dr. Motasem Abed	Director	Sweida DFEA
Mr. Ahmed Kablawi	Director	Dara'a DFEA
Mr. Hasan Marjan	Director	Tartous DFEA
Mr. Hamzeh Soliman	Director	Quneitra DFEA

Japanese Side

Name	Position	Organization
Mr. Kenichi Tanaka	Leader	JICA Terminal Evaluation Mission
Ms. Reiko Shindo	Member	JICA Terminal Evaluation Mission
Ms. Yasuyo Hirouchi	Member	JICA Terminal Evaluation Mission
Ms. Mayumi Murakami	Staff	JICA Syria Office
Mr. Nawras Khalied	Staff	JICA Syria Office
Mr. Yoichi Iwai	Chief Advisor	JICA Expert Team
Mr. Shinsuke Sato	Member	JICA Expert Team






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

**Agenda for the 15<sup>th</sup> Technical Committee  
(Terminal Evaluation)**

**Date and Venue:**

- July 31 (Tue), 10:00-14:30: at a meeting room in GCEA

**Attendance:**

- GCEA
- Director (or Representative) of DFEA
- JICA Terminal Evaluation Mission
- JICA Syria
- JICA Expert Team

**Purpose:**

- 1) To grip achievement of the Project,
- 2) To report current situation of DFEA,
- 3) To share information among GCEA and DFEAs, and
- 4) To discuss issues on the Project and its next Phase.

**Contents to be presented by DFEA**

- 10 minutes presentation and 5 minutes Q/A for each DFEA,
- 4-5 photos in total, 10-15 slides for presentation,

The following items should be presented by each DFEA:

- 1) Photos of the building of DFEA, the Lab (equip & analysis activity), and the sampling activities in the field (one each),
- 2) Organization chart including number of staff in each Department,
- 3) Prioritized environmental issues in each DFEA,
- 4) Level of skill and knowledge of CPs related to lab analysis,
- 5) Self-effort to improve skill and knowledge of CPs beside the training by JET,
- 6) Conditions of lab O/M (usage of manuals, equip, O/M of reagents and chemicals),
- 7) Current situation of monitoring activities compared with the plan, (Pls. describe major reasons if it was not achieved as planned), and
- 8) Monitoring conditions to pollution sources.

Agenda:

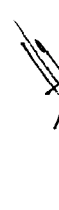
1. Opening Remarks (by Dr. Akram, General Director of GCEA) 10:00-10:10
  2. Explanation of the Terminal Evaluation (by Mr. Tanaka, JICA) 10:10-10:30
  3. Presentation by each DFEA including Question and Answer 10:30-14:00
    - 3.1 Director of Hasakh DFEA (10:30-10:45)
    - 3.2 Director of Damascus Countryside DFEA (10:45-11:00)
    - 3.3 Director of Aleppo DFEA (11:00-11:15)
    - 3.4 Director of Tartous DFEA (11:15-11:30)
    - 3.5 Director of Hama DFEA (11:45-12:00)
    - 3.6 Director of Homs DFEA (12:00-12:15)
    - 3.7 Director of Lattakia DFEA (12:15-12:30)
  - Short Discussion and/or Break (12:30-12:35)
  - 3.8 Director of Damascus DFEA (12:35-12:45)
  - 3.9 Director of Rakka DFEA (12:45-13:00)
  - 3.10 Director of Deir ez Zor DFEA (13:00-13:15)
  - 3.11 Director of Quneitra DFEA (13:15-13:30)
  - 3.12 Director of Idleb DFEA (13:30-13:45)
  - 3.13 Director of Dara'n DFEA (13:45-14:00)
  - 3.14 Director of Sweida DFEA (14:00-14:15)
4. General Discussion 14:15-14:30
  5. Closing Remarks (by Dr. Akram, General Director of GCEA) 14:30-

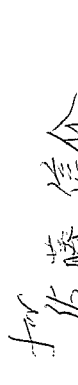
End

Minutes of Meeting  
On  
The 16th Technical Committee  
For  
The Capacity Development of Environmental Monitoring at Directorates

For  
Environmental Affairs in Governorates in the Syrian Arab Republic

Damascus, 5 November 2007

  
Dr. Akram S. Al Khouri  
General Director  
General Commission for Environmental  
Affaires

  
Mr. Yoichi Iwai  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

List of Attendants**The 16th Technical Committee**Syrian Side

Name	Position	Organization
Dr. Akram S. Al Khouri	General Director	GCEA
Dr. Yasin Moa'ila	Director of Directorate of Laboratories	GCEA
Mr. Bassam Khier Bek	Director of Damascus DFEA	Damascus DFEA
Ms. Riem Sadr Alden	Chemist, Laboratory Chief	Damascus DFEA
Mr. Thar Daif	Director of Damascus Countryside DFEA	Damascus Countryside DFEA
Mr. Suleiman Kalo	Director of Hama DFEA	Hama DFEA
Mr. Ali Jwaied	Director of Hama DFEA	Hama DFEA
Mr. Ahmad Kablawi	Director	Dara'a DFEA
Mr. Hasan Marjan	Director	Tartus DFEA

Japanese Side

Name	Position	Organization
Mr. Shinsuke Sato	Member, JICA Expert Team	Member, JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter, JICA Expert Team	Interpreter, JICA Expert Team

The 16th technical committee (T/C) for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project) was held on 5 November, 2007 at the meeting room in the General Commission for Environmental Affairs (GCEA). It was started by the opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. Then, the following 2 themes were presented and shared among all attendants;

1. Confirmation of delivery and acceptance of the Progress Report (5), and
2. Holding of the Integrated Final Seminar.

An attendant list and agenda of the 16th T/C are attached per ANNEX-1 and ANNEX-2, respectively.

First of all, the member of the JICA Expert Team, Mr. Shinsuke Sato, made a confirmation about the Progress Report (5) that had been prepared and submitted to the GCEA at the end of August 2007 by the JICA Expert Team. Director of the Directorate of Laboratories in the GCEA, Dr. Yasin Moa'ila, answered that the Progress Report (5), consisting of the English version and the Arabic version of main report and Annex, had been distributed to the GCEA and 14 DFEAs about one month ago by the GCEA. The Directors of DFEAs attended at this T/C acknowledged the contents of the Progress Report (5) and expressed their acceptances of the Progress Report (5).

Then, the member of the JICA Expert Team, Mr. Shinsuke Sato, explained the planned Integrated Final Seminar to be held on the beginning of December 2007. Mr. Shinsuke Sato presented a proposed plan for this seminar. Outline of the proposed plan of this seminar is shown in attached sheet. General Director of GCEA, Dr. Akram S. Al Khouri, agreed basically with the holding of this seminar. Dr. Akram S. Al Khouri, Dr. Yasin Moa'ila, and the Directors of DFEAs attended at this T/C also agreed that the contents and the details of the seminar would be discussed between the GCEA, the DFEAs and the JICA Expert Team after the arriving of the Team Leader of the JICA Expert Team, Mr. Yoichi Iwai, in Syria.

Finally, the member of the JICA Expert Team, Mr. Shinsuke Sato, suggested that the planned activities of the JICA Expert Team in this period would be informed to the GCEA and all DFEAs later. All attendants understood this.

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

**Agenda for the 16<sup>th</sup> Technical Committee**

- Date and Venue:**  
- November 5 (Mon), 12:00-13:00: at meeting room in GCEA
- Agenda:**
1. Opening Statement (by Dr. Akram, General Director of GCEA,  
12:00-12:05
  2. Presentation by the JICA Expert Team  
12:05-12:30
    - Confirmation of the Progress Report (5)
    - Explanation of the Integrated Final Seminar
    - Planned activities of the JICA Expert Team in this period

4. Discussion  
12:30-12:45
5. Closing Remarks (by Dr. Akram, General Director of GCEA)  
12:45-

End

**Outline of Integrated Final Seminar**

- Purpose of the Seminar
  - Generalization/Summation of the Project,
  - Future prospects and subjects for the Project
- To be conducted mainly by GCEA and DFEAs
- To be held:
  - at 3 DFEAs (ALP, HOM, and DAM),
  - on Dec. 5 at ALP,
  - on Dec. 6 at HOM, and
  - on Dec. 10 at DAM (Comined with 8<sup>th</sup> St/C)
- Attendance: Minister (DAM), Governor, Director of GCEA, JICA Representative, Member of St/C, Member of other JICA Projects, Others

**Agenda for Integrated Final Seminar (tentative)**

1. Opening address (10:00 - 10:20)
2. Monitoring results of Basic Water Quality Analysis and Problems of Environmental management (10:20 - 11:00)
  - 2.1 ALP: Summary presentation for 5 northern Governorates (ALP, HSK, DRZ, RKA, IDL)
  - 2.2 HCM: Summary presentation for 4 coastal and inland Governorates (HCM, TRT, LTC, HAM)
  - 2.3 DAM: Summary presentation for 3 southern Governorates (DAM, DAMC, SWD, DRA, QNT)
3. Monitoring results of industrial wastewater and P problems of Environmental management (11:00 - 11:20)
  - 3.1 Summary presentation of 3 main Governorates (DAMC, HOM, ALP)
  - 3.2 Summary presentation of the central laboratory (DAM)

(Coffee Break)
4. Monitoring results of air quality and Problems of Environmental management (12:00 - 12:20)
  - 4.1 Summary presentation of 3 main Governorates (DAM, HCM, ALP)
5. Summary of the Environmental Monitoring Project and Subject for next stage (By GCEA) (12:20 - 13:00)
  - 5.1 Summary report of the seminar in ALP and HOM
  - 5.2 Future prospects and subjects for the environmental monitoring
  - 5.3 Summary of the Projects toward Phase-I
6. Closing address (13:00 - 13:20)  

(Lunch)

1/2

1/2

## **Attachment 3: List of Output Materials**



### Attachment 3 List of Output Materials×

No.	Name of Output Materials	English	Arabic	
<b>Standard Operation Procedure (SOP)</b>				
Basic Water Quality Analysis (BW)	1	SOP for pH and Water Temperature Measurement	0	0
	2	SOP for Color (Apparent) Measurement	0	0
	3	SOP for Electrical Conductivity (EC) and Total Dissolved Solids (TDS) Measurement	0	0
	4	SOP for Dissolved Oxygen (DO) Measurement	0	0
	5	SOP for Suspended Solid (SS) Measurement	0	0
	6	SOP for Chemical Oxygen Demand (COD) Measurement (High Range 0-1,500 mg/l)	0	0
	7	SOP for Chemical Oxygen Demand (COD) Measurement (Low Range 0-150 mg/l)	0	0
	8	SOP for Biological Oxygen Demand (BOD) Measurement	0	0
	9	SOP for Nitrate (NO <sub>3</sub> -N) Measurement (High Range 0-30 mg/l)	0	0
	10	SOP for Nitrate (NO <sub>3</sub> -N) Measurement (Mid Range 0-5.0 mg/l)	0	0
	11	SOP for Phosphorous (PO <sub>4</sub> ) Measurement (High Range 0-30 mg/l)	0	0
	12	SOP for Phosphorous (PO <sub>4</sub> ) Measurement (Low Range 0-2.50 mg/l)	0	0
	13	SOP for Chloride (Cl <sup>-</sup> ) Measurement	0	0
	14	SOP for Ammonia (NH <sub>3</sub> -N) Measurement (High Range 0-50 mg/l)	0	0
	15	SOP for Ammonia (NH <sub>3</sub> -N) Measurement (Low Range 0-2.50 mg/l)	0	0
	16	SOP for Turbidity Measurement	0	0
	17	SOP for Sampling	0	0
	18	SOP for Sampling Checklist	0	0
	19	SOP for Field Measurement and Observation Record	0	0
	20	SOP for Water Quality Results Record	0	0
	21	SOP for Preservation and Storage of Samples	0	0
	22	SOP for Water Stills	0	0
	23	SOP for Interference Treatment	0	0
	24	SOP for Reagent Correction	0	0
	25	SOP for sending sample to DAM	0	0
Chem. & Biol. Analysis 1 (CB 1)	1	Oil & Grease	0	0
	2	Phosphorus	0	0
	3	Chromium, Total	0	0
	4	Chromium, Hexavalent	0	0
	5	Nitrogen, Ammonia	0	0
	6	Surfactants	0	0
	7	Cyanide(Electrode)	0	0
	8	Nitrate (Electrode)	0	0
	9	Nitrate MR	0	0
	10	Nitrite LR	0	0
	11	Chloride (electrode)	0	0
	12	Fluoride (Electrode)	0	0
	13	Sulfide	0	0
	14	SS	0	0
	15	Total Coliform	0	0
	16	SOP for COD <sub>Cr</sub>	0	0
	17	De-Ionizing	0	0
	18	SOP User Programs DR5000	0	0
	19	SOP for sampling	0	0
Chem. & Biol. Analysis 2 (CB 2)	1	SOP for the Determination of Chromium, Hexavalent for DR/4000	0	0
	2	SOP for the Determination of Chromium, Total for DR/4000	0	0
	3	SOP for the Determination of Hardness for DR/4000	0	0
	4	SOP for the Determination of Nitrogen, Ammonia for DR/4000	0	0
	5	SOP for the Determination of Nitrate (Middle Range) for DR/4000	0	0
	6	SOP for the Determination of Nitrate (High Range) for DR/4000	0	0
	7	SOP for the Determination of Nitrite for DR/4000	0	0
	8	SOP for the Determination of Phosphorus, Reactive (Orthophosphate) for DR/4000	0	0
	9	SOP for the Determination of Sulfide for DR/4000	0	0
	10	SOP for the Determination of Surfactants, Anionic (Detergents) for DR/4000	0	0
	11	SOP for the Determination of Oil and Grease	0	0
Heavy Metals Analysis (MH)	1	SOP for MA-01 Sampling	0	0
	2	SOP for MA-02 Pretreatment	0	0
	3	SOP for MA-03 Calibration Curve	0	0
	4	SOP for MA-04 Flame	0	0
	5	SOP for MA-05 Furnace	0	0
	6	SOP for MA-06 Hg	0	0
	7	SOP for MA-07 As	0	0
	8	SOP for MA-08 Data Management	0	0

	No.	Name of Output Materials	English	Arabic
	9	SOP for MA-09 Data Evaluation	0	0
	10	SOP for MA-10 Std addition method	0	0
	11	SOP for MA-11 Matrix Modifier	0	0
Air Quality Analysis (AQ)	1	SOP for AQA-1 (NOX)	0	0
	2	SOP for AQA-2 (SO2)	0	0
	3	SOP for AQA-3 (PM10)	0	0
	4	SOP for AQA-4 (TSP)	0	0
	5	SOP for AQA-5 (Pb)	0	0
	6	SOP for AQA-6 (O3)	0	0
	7	SOP for AQA-7 (NH3)	0	0
	8	SOP for AQA-8 (F)	0	0
	9	SOP for AQA-9-1 Passive of Cont	0	0
	10	SOP for AQA-10 Sampling Method	0	0
<b>Operation and Maintenance (O/M) Manual</b>				
Basic Water Quality Analysis (BW)	1	Operation and Maintenance (O/M) Manual for Laboratory (BWQA)	0	0
	2	O-M Record for Equipment (BWQA)	0	0
	3	O-M Record for Reagents (BWQA)	0	0
	4	O-M Record for Laboratory Management Staff (BWQA)	0	0
	5	O-M Record for Suppliers Contact List (BWQA)	0	0
	6	O-M Record for Sending Waste Liquid to DAM (BWQA)	0	0
Chem. & Biol. Analysis 1 (CB 1)	1	O-M record Chem. & Bio DAM	0	0
	2	Maintenance Glass Reagent Dam	0	0
Heavy Metals Analysis (MH)	1	OM for MA-01 Flasks	0	0
	2	OM for MA-02 Pipettes	0	0
	3	OM for MA-03 Toxin1	0	0
	4	OM for MA-04 Toxin2	0	0
	5	OM for MA-05 Toxin3	0	0
	6	OM for MA-06 Consumables	0	0
	7	OM for MA-07 Periodical Maintenance	0	0
	8	OM for MA-08 CC and Dilution	0	0
Air Quality Analysis (AQ)	1	OM for AQA-1 Basic Operation in Chemical Analysis	0	0
	2	OM for AQA-2 Tools and Material OM	0	0
	3	OM for AQA-3-1(DAM) Maintenance Glass Reagent Dam	0	0
	4	OM for AQA-3-2(HOM) Maintenance Glass Reagent Homs	0	0
	5	OM for AQA-3-3(ALP) Maintenance Glass Reagent Aleppo	0	0
<b>Materials for Lecture Training</b>				
Environmental Management (EM)	1	Lecture for Environmental Management: 1 set	0	
Basic Water Quality Analysis (BW)	2	Lecture for Basic Water Quality Analysis: 1 set	0	0
Chem. & Biol. Analysis 1 (CB 1)	3	Lecture for Chemical and Biological Analysis (1): 1 set	0	0
Chem. & Biol. Analysis 2 (CB 2)	4	Lecture for Chemical and Biological Analysis (2): 1 set	0	
Heavy Metals Analysis (MH)	5	Lecture for Heavy Metals Analysis: 1 set	0	0
Air Quality Analysis (AQ)	6	Lecture for Air Quality Analysis: 1 set	0	0
Data Management (DM)	7	Lecture for Data Management: 1 set	0	0
Environmental Education (E&E)	8	Lecture for Public Awareness and Environmental Education: 1 Set	0	

## **Attachment 4: Record of Seminar and Workshops**

## Attachment 4: Record of Seminars and Workshops

### 1. Seminar on Environmental Education

Date: 28 June 2005

Venue: Conference room of GCEA

Agenda:

- a) Broadcasting a video called 'Japan Experience on pollution control';
- b) Presentation by the environmental education expert concerning a proposal on environmental education, and
- c) Demonstration on the Eco-plant game.

#### List of Attendances for the Environmental Education Seminar

Name	Organization
Mr. Takoya Sasaki	JICA (FIRDOS)
Mr. Fareed Mawlawi	Damascus Friends Association
Dr. Yaser Al Muhamad	Environment Protection & Sustainable Development Association
Mr. Tareq Al Boushi	Syrian Association For Environment
Mr. Farah Huaijeh	Syrian Association For Environment
Mr. Yamen Awad	Syrian Association For Environment
Mr. Hisham Al Sati	Damascus Friends Association
Dr. Anwar Al Khateeb	Damascus Friends Association
Mr. Maha Nsair	Syrian Association For Environmental life Protection
Mr. Basema Mudawar	Syrian Association For Environment
Dr. Ghassan Shaheen	Syrian Association For Environment
Mr. Ali Ahmad Al Shimali	Fardos – Al Qunietra
Mr. Katia Farah	Damascus DFEA
Mr. Nour Edin Al Shimali	Fardos – Al Qunietra
Mr. Ghassan Al Jaffal	Fardos – Al Qunietra
Mr. Abeer Al Shimali	Youth Union
Mr. Samee Abbas	Environment Friends Association
Mr. Marah Murad	JICA
Mr. Rasha Al Mehrez	Damascus DFEA
Mr. Sanaa Yaqoub	Environment Protection & Sustainable Development Association
Dr. Warqaa Barmada	Syrian Association for Environment
Mr. Dayetchi Konuma	JICA (Fardos)

### 2. Seminar in DFEA on Public Awareness Raising for Industrial Sector (Aleppo DFEA)

Subject: Communication with Industrial sector

Venue: Aleppo DFEA

Date and Time: 10:00-12:30, 28 Jan., 2007

#### List of Attendances for the Seminar in Aleppo DFEA

Name	Organization
Mr. Mouhammed Saeid Naffous	Manager of Aleppo DFEA, Aleppo DFEA
Mr. Ilia Wasel	Air quality & data management, Aleppo DFEA
Ms. Waffa Kraim	Public awareness, Aleppo DFEA
Ms. Khload Awayed	Public awareness & air quality, Aleppo DFEA
Ms. Donia Ghariieb	Public awareness & air quality, Aleppo DFEA
Mr. Mahmoud Hassan Esmacil	Public awareness & air quality, Aleppo DFEA
Mr. Ahmad Mo'ala Ahmad	Water quality, Aleppo DFEA
Mr. Mohammad Alhammadeh	Water quality, Aleppo DFEA
Mr. Mohammad Rasheed	Water quality, , Aleppo DFEA

### 3. Workshop with Chamber of Industry initiated by DFEA (Aleppo Chamber of Industry)

Subject: Workshop in Aleppo Chamber

Venue: Meeting room in Aleppo Chamber.

Date and Time: 10:00-01:00, 29 Jan., 2007

#### List of Attendances for the Environmental Education Seminar

Name	Organization
Mr. Nizam Esmail	Tahan Co. /Publicity Management /M.Q.
Mr. Mouhamed Haddad	Ch. Ind /Lab-City -Ind
Ms. Hanna Ekki	Aleppo University / Faculty of Agronomy/ a member in governorate's session & a member of agricultural engineering unit
Mr. Ahmad Alskehkh Saleh	The General Establishment of Railways/Chief of industrial safety and protection dept.
Mr. Abd Aljalil Jarra	Barakat for medicinal industries /Manager of quality accuracy
Mr. Mouhammed Azzam Skheta	Skheta Co./Development &Research / researcher into environment affaires &food safety
Mr. Wael Khder	The General Company for sewerage /industrial waste monitoring / Environmental committee member in governorate
Mr. Ahmad Mo'ala Ahmad	Aleppo DFEA/Lab chief /Environmental committee member
Mr. Mohammad Alhammadeh	Aleppo DFEA/Lab /Environmental committee member
Mr. Mohammad Rasheed	Aleppo DFEA/Lab /Environmental committee member
Mr. Walid Ak	Asia for Fodder/General manager
Mr. Azeez Alattar	Arabian Co. for paper products /Manger of production
Mr. Najem Aldeen Altanbi	Arabian Co. for paper products/Engineering office supervisor
Ms. Mai Bas	Syndicate of agronomists/Environment committee chief in the syndicate
Ms. Donia Ghariieb	Aleppo DFEA/Lab/Eng.
Ms. Khload Awayed	Aleppo DFEA /Lab/Eng.
Ms. Waffa Kraim	Aleppo DFEA/Public awareness/Eng.
Ms. Hiba Hadidi	Aleppo DFEA/Eng.
Mr. Elias Khoudari	Engineering office for treatment station and environment /Eng
Mr. Aed Alhakeem Bannoudd	Syndicate of engineering /Environmental engineering /Dean of technical engineering

### 4. Workshop with Chamber of Industry initiated by DFEA (Lattakia Chamber of Commerce & Industry)

Subject: Workshop in Lattakia Chamber of Commerce & Industry

Venue: Meeting room in Lattakia Chamber

Date and Time: 10:30-12:30, 31 Jan., 2007

#### List of Attendances for the Workshop in Lattakia Chamber of Commerce & Industry

Name	Organization
Mr. Habeeb Deratani	Lattakia DFEA /Assistant manager of Lattakia DFEA
Mr. Senan Deeb	Lattakia DFEA/Lab staff
Ms. Ammal Allo	Lattakia DFEA/Eng/ Public awareness
Ms. Awatef HADAD	Lattakia DFEA/Eng/ Public awareness
Ms. Kinda Haddad	Lattakia DFEA/Eng/Public awareness
Ms. Maya Yaseen	Lattakia DFEA/ Eng. /Lab staff
Mr. Thaeer Mouhammed	Lattakia DFEA/ Eng. /Lab staff
Ms. Suzan Shaddod	Lattakia DFEA/Eng. /Lab staff
Ms. Hadeel Wannus	Lattakia DFEA/Eng. /Lab staff
Mr. Yousef Ali	Tishreen Newspaper /Journalist
Mr. Sami Sufi	Chamber manager of Industry & Commerce
Mr. Assem Souliman	Board member
Mr. Numman Saai	Board member
Mr. Saad Allh Zedan	Board member
Mr. Gaber Aldarf	Board member
Mr. Talal Raai	Raai Ikhoun for purification of olive 's oil
Mr. Waleed Saleh	Commercial representative

Name	Organization
Mr. Mouhammed Soufi	Commercial representative
Ms. Nouha Shekh Suliman	Alwatan Newspaper/Journalist
Ms. Nariman Hasna	Alwehda Newspaper/Journalist
Ms. Tagreed Zayood	Alwehda Newspaper/Journalist
Mr. Riad Helal	Agricultural Company

## 5. Seminar in DFEA on Public Awareness Raising for Industrial Sector (Damascus DFEA)

Subject: Seminar for Public Awareness

Venue: Damascus DFEA

Date and Time: 11:00-12:00, 1 Feb., 2007

### List of Attendances for the Seminar in Damascus DFEA

Name	Organization
Mr. Almuthana Ganem	Damascus DFEA/Data management
Ms. Rasha Mehrez	Damascus DFEA/ Public Awareness
Mr. Iman Suleman	Damascus DFEA/Lab staff

## 6. Workshop with Chamber of Industry initiated by DFEA (Damascus Chamber of Industry)

Subject: Workshop in Damascus Chamber of Industry

Venue: Damascus Chamber of Industry.

Date and Time: 12:00-14:00. 4 Feb., 2007

### List of Attendances for the

Name	Organization
Mr. Mohamed Walid Malas	Damascus & Damascus countryside Chamber of Industry
Eng. Mohamed Ali	Habi Tex Co.
Mr. Eiad Alhashmy	Rafik Albrgali Co.
Eng. Ratib Ramadan	Madar Company for chemicals
Mr. Chade Aroob	Madar Company for chemicals
Mr. Asama Balki	Madar Company for chemicals
Mr. Bashar Maani	Maani Group –Damascus
Ms. Rahaf Kahwaji	JICA DETEX project
Eng. Mohamed basel Al-hafar	TUV-ME
Mr. Amer Malas	Malas 's laundry
Mr. Ziad Al-Doumani	Colour Tex for Dying
Mr. Mohamed Ammar Rifai	Colour Tex for Dying
Eng. Nizar Jalaghi	Unipharma for Medicine
Eng. Ahmad Alakkad	Salsbil's Company
Eng. Basel Takie Eddine	New Company for dying
Eng. Wadia'a Jeha	Manager's assistant of Damascus DFEA
Eng. Gloria Moussa	GCEA
Mr. Mouhamed Abed Alla Mozek	Mozek's company for paper
Mr. Firas Kassem	Kadri and Kassem for dying
Ms. Reem Fawakheeri	Alhilali, Almwaldi & partners Co.
Mr. Mouhamed Al-Helbawi	Altawfeek's plant for bactericides
Mr. Mohamed Tawfik Mourad	Murad Co. for Textile & Spinning
Mr. Adel Galoul	Algaloul Company for Agricultural Tools
Dr. Mamoun El Bahra	Albahra & Partners Co.
Eng. Firas Kahwaji	Engineering office
Eng. Yasser Helbawi	Altawfeek's plant for Bactericides
Dr. Mohamed Radwan Abdeen	Savco for Veterinary Medicine

## 7. Final Seminar in Aleppo

Subject: Final Seminar of the Project in Aleppo

Contents: Overall Results of the Project for Aleppo, Idleb, Hasakeh, Deir ez Zor, and Rakka DFEAs

Date and Time: 10:00-14:00. 5 Dec., 2007

### List of Attendances for the Final Seminar in Aleppo

Name	Position	Organization
Eng. Saeed Naffous	Director	Aleppo DFEA
Mr. Ahmad Mo'ala Ahmad	Lab chief	Aleppo DFEA
Mr. Mohammad Hammadeh	Lab staff (Water Quality Analysis)	Aleppo DFEA
Mr. Mohammad Rasheed	Lab staff (Water Quality Analysis)	Aleppo DFEA
Mr. Mouhamed Najeeb Fattouh	Lab staff	Aleppo DFEA
Mr. Iliia Wasel	Lab staff (Air Quality Analysis/Data management)	Aleppo DFEA
Ms. Donia Gharieb	Lab staff (Air Quality Analysis)	Aleppo DFEA
Ms. Khload Awayed	Lab staff (Air Quality Analysis)	Aleppo DFEA
Ms. Hiba Hudari	Lab staff (Air Quality Analysis)	Aleppo DFEA
Ms. Mai Leboss	Eng. Syndicate	Aleppo
Ms. Souhayla Mouhajer	Env. Committee in Aleppo Governorate	Aleppo
Mr. Mohammed Amin Al Kalaf	Director	Deir ez Zor DFEA
Mr. Saher Abdullah	Lab chief	Deir ez Zor DFEA
Mr. Omar Almala Ali	Lab staff	Deir ez Zor DFEA
Ms. Jomana Hasan	Director	Idleb DFEA
Mr. Sameer Da'boul	Lab Chief	Idleb DFEA
Mr. Mustafa Al-Dghayem	Lab staff	Idleb DFEA
Mr. Mustafa Haddad	Lab staff	Idleb DFEA
Mr. Kais Abazli	Lab staff	Idleb DFEA
Mr. Eiad Al-Husein	Lab staff	Idleb DFEA
Mr. Aysar Beniameen	Lab staff	Hasakeh DFEA
Ms. Abir Hanna	Lab staff	Hasakeh DFEA
Mr. Nawaf Othman	Lab staff	Hasakeh DFEA
Mr. George Shabo	Lab staff	Hasakeh DFEA
Mr. Emad Meslet	Lab staff	Hasakeh DFEA
Ms. Shamsa Aljasem	Director	Rakka DFEA
Ms. Adib Amouri	Lab chief	Rakka DFEA
Mr. Wayl Kheder	General Company for Sewerage	Aleppo
Dr. Talal Masri	Mechanical Engineering Faculty	Aleppo University
Mr. Khallad Jamal	Chamber of industry	Aleppo
Mr. Ahmad Ammar Said	Free land Consultant	Aleppo
Dr. Zuhair Masri	Land Management	ICARDA in Aleppo
Dr. Waleed Isa	Head of General Water Monitoring Dept.	Aleppo
Mr. Omar Sharani	Member of exertive bureau	Aleppo

### Japanese Side

Name	Position	Organization
Mr. Nawras Khaled	Program officer	JICA Syria Office
Ms. Higshi Kaori	JICA Staff	JICA Syria Office
Mr. Ken Morino	JICA Senior volunteer	Aleppo Chamber Industry
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Dr. Ryunan Matsue	Team Member	JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter	JICA Expert Team
Mr. Wasim Kabbesh	Interpreter	JICA Expert Team

## 8. Final Seminar in Hama

Subject: Final Seminar of the Project in Hama

Contents: Overall Results of the Project for Hama, Homs, Tartous, and Lattakia DFEAs

Date and Time: 10:00-14:00. 6 Dec., 2007

### List of Attendances for the Final Seminar in Hama

Name	Position	Organization
Mr. Suleiman Kalo	Director	Homs DFEA
Mr. Muhamed Ali Al Husien	Lab staff	Homs DFEA
Ms. Sana Mansour	Chief of water lab	Homs DFEA
Ms. Hanan Naffouj	Data Management	Homs DFEA
Mr. Ali Jwaied	Director	Hama DFEA
Ms. Rana Wardeh	Lab chief	Hama DFEA
Ms. Nameer Warra	Lab staff	Hama DFEA
Ms. Yasmin Haidar	Lab staff	Hama DFEA
Ms. Hebah Khouri	Lab staff	Hama DFEA
Mr. Durgham Flaha	Soil analysis	Hama DFEA
Ms .Raw'a Al habian	Environmental Safety Department	Hama DFEA
Mr. Hasan Yousef	EIA	Hama DFEA
Mr. Ahmad Harbi	Soil Lab	Hama DFEA
Ms. Sawsan Hammud	Soil Lab	Hama DFEA
Ms. Noorha Alshishakly	Water Lab	Hama DFEA
Ms. Shatha Soltan	Planning Department	Hama DFEA
Mr. Osama Alrail	IT. Department	Hama DFEA
Ms. Rana Alshuriki	Officer	Hama DFEA
Ms .Esraa Dhemesh	Officer	Hama DFEA
Mr. Mahmoud Alhassan	Officer	Hama DFEA
Mr. Sameer Abd Alrazak	General director of sewerage	Hama
Mr. Abd Alraheem Alkhateeb	Directorate of water resources	Hama
Mr. Nidal Rasheed Bakoor	Head of Industrial chamber in Hama	Hama
Mr. Mesaef Alwani	Member of exertive bureau	Hama
Mr. Abd Alla Alshekh	Secretary of Sana in Hama	Hama
Mr. Abed Almajed Alrahmoon	Reporter for Alfeda Newsletter	Hama
Mr.Kanaan Pukhar	Reprehensive of Env Friends society	Hama
Mr. Badi Haidar	Lab staff	Lattakia DFEA
Mr. Mohammed Milhem	Lab staff	Lattakia DFEA
Mr. Thaer Mohamad	Lab staff	Lattakia DFEA
Mr. Hasan Marjan	Director	Tartus DFEA
Ms. Sohila Botros	Lab staff	Tartus DFEA
Ms. Ameera Omran	Lab staff	Tartus DFEA
Ms. Rowdaina Al-Ali	Lab staff	Tartus DFEA
Ms. Smaher Abdul Rahman	Lab staff	Tartus DFEA
Mr. Osama Ali	Mobile lab	Tartus DFEA

### Japanese Side

Name	Position	Organization
Ms. Mayumi Mura Kami	JICA .ARR	JICA Syria Office
Mr. Nawras Khaled	Program officer	JICA Syria Office
Ms. Higshi Kaori	JICA staff	JICA Syria Office
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Dr. Ryunan Matsue	Team Member	JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter	JICA Expert Team
Mr. Wasim Kabbesh	Interpreter	JICA Expert Team



## 9. Final Seminar in Damascus

Subject: Final Seminar of the Project in Damascus

Contents: Overall Results of the Project for Damascus, Damascus Countryside, Dara'a, Sweida, and Quneitra DFEAs

Date and Time: 10:00-14:00. 9 Dec., 2007

### List of Attendances for the Final Seminar in Damascus

#### Syrian Side

Name	Position	Organization
Dr. Bisher Alsaban	Governor	Damascus Governorate.
Dr. Akram S. Alkouri	General Director	GCEA
Dr. Yasin Moa'lla	Director of Directorate of Laboratories,	GCEA
Ms. Fathia Mohammed	Directorate of Laboratories.	GCEA
Eng. Basel Barni	Directorate of Atmospheric air safety	GCEA
Mr. Bassam Kheir beik	Director	Damascus DFEA
Ms. Wadia'a Jaha Khouri	Deputy Director	Damascus DFEA
Ms. Riem Sadr Alden	Laboratory Chief	Damascus DFEA
Ms. Ms. Iman Sulayman	Lab staff	Damascus DFEA
Ms. Sohad Sida	Lab staff	Damascus DFEA
Ms. Inas Webby	Lab staff	Damascus DFEA
Ms. Raniya Sulayman	Lab staff	Damascus DFEA
Ms. Firyal Al Husayni	Lab staff	Damascus DFEA
Ms. Omaima Younes	Lab staff	Damascus DFEA
Mr. Tallat Harb	Lab staff	Damascus DFEA
Ms. Assmaa Altabakh	Lab staff	Damascus DFEA
Mr. Thaer Daif	Director	Damascus Countryside DFEA
Ms. Muna Al Joma`a	Lab chief	Damascus Countryside DFEA
Mr. Malek Soliman	Lab staff	Damascus Countryside DFEA
Ms. Lina Yousef	Lab staff	Damascus Countryside DFEA
Ms. Rania Karawi	Lab staff	Damascus Countryside DFEA
Ms. Dana Fuad Altahan	Lab staff	Damascus Countryside DFEA
Ms. Hana Bairoti	Lab staff	Damascus Countryside DFEA
Dr. Motasem Al Abed	Director	Sweida DFEA
Mr. Humam Abo Raid	Lab staff	Sweida DFEA
Mr. Bashar Aljarmakani	Lab staff	Sweida DFEA
Mr. Wael Abu Ganem	Lab staff	Sweida DFEA
Ms. Raghad Abu Hasson	Lab staff	Sweida DFEA
Ms. Hana Abu Zaidan	Lab staff	Sweida DFEA
Mr. Samer Al Masri	Lab staff	Sweida DFEA
Ms. Amal Swaidan	Lab staff	Sweida DFEA
Mr. Thaer Hamzeh	Lab staff	Sweida DFEA
Ms. Waffa Alsalman	Lab staff	Sweida DFEA
Mr. Ahmad Kablawi	Director	Dara'a DFEA
Mr. Mohammad Al-hariri	Lab staff	Dara'a DFEA
Mr. Ateea Zwayda	Lab staff	Dara'a DFEA
Mr. Yousef Shadaideh	Lab staff	Dara'a DFEA
Mr. Diea Shabat	Lab staff	Dara'a DFEA
Mr. Imad Abo Habash	Lab staff	Dara'a DFEA
Mr. Hamzeh Soliman	Director	Qunaitra DFEA
Mr. Majed Zaitoun	Lab staff	Qunaitra DFEA
Mr. Ali Ibrahim	Lab staff	Qunaitra DFEA
Ms. Mouhamad Fawaz Alsafadi	Officer	Damascus Governorate

**Japanese Side**

<b>Name</b>	<b>Position</b>	<b>Organization</b>
Mr. Satoshi Baba	Second Secretary	Embassy of Japan
Mr. Ghassan Habbal	Economical Section	Embassy of Japan
Ms. Akiko Tomita	Resident Representative	JICA Syria Office
Mr. Nawras Khaled	Program officer	JICA Syria Office
Ms. Higshi Kaori	JICA staff	JICA Syria Office
Mr. Tsuyosh Hashimoto	Team Leader	JICA Study team
Ms. Hirokko Nariyawa	JOVC	JICA Syria Office
Ms. Naomi Wake	JOVC	JICA Syria Office
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Dr. Rynan Matsue	Team Member	JICA Expert Team
Mr. Koji Kimura	Member	JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter	JICA Expert Team
Mr. Wasim Kabbesh	Interpreter	JICA Expert Team
Ms. Rula Sabboh	Secretary	JICA Expert Team

## **Attachment 5: List of Collected Data and Documents**

### Attachment 5 List of Collected Data and Documents

Serial No.	Title	Type	Size	Page No.	Orig/Copy	No.	Provided or Issued by	Presented/ Purchased	Person in charge	Date
1	Plan View of Laboratory in Damascus DFEA	Drawing	A4	1	Orig	1	Damascus DFEA	Presented	R. Matsue	11 Jan. 2005
2	Lake Water Quality Management (International Lake Environmental Committee)	Report	A4	13	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
3	Coastal Water Resources Management Project Assessment of the Groundwater Resources and Recommendations for Their Development and Management	Report	A4	58	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
4	Coastal Water Resources Management Project Surface Water	Report	A4	59	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
5	Coastal Water Resources Management Project Water Use in Agriculture	Report	A4	33	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
6	Coastal Water Resources Management Project Water Pollution Control	Report	A4	59	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
7	Coastal Water Resources Management Project Environmental Impact Aspects	Report	A4	50	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
8	Coastal Water Resources Management Project Water Balances in the Syria Coastal Basin	Report	A4	17	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
9	Coastal Water Resources Management Project The Coastal Basin Water Management Action Plan	Report	A4	74	Copy	1	Ministry of Irrigation	Presented	R. Matsue	17 Jan. 2005
10	Environmental and Scientific Research Center	Pamphlet	A4	5	Copy	1	MOLAE	Presented	R. Matsue	31 Jan. 2005

Serial No.	Title	Type	Size	Page No.	Orig/Copy	No.	Provided or Issued by	Presented/ Purchased	Person in charge	Date
	(ESRC)									
11	Country Report, Syria Lake Water Quality Management JFY 2003	Report	A4	33	Copy	1	Ministry of Irrigation	Presented	R. Matsue	21 Feb. 2005
12	Laboratory Equipment List	Report	A4	3	Copy	1	Ministry of Housing and Construction	Presented	R. Matsue	21 Feb. 2005
13	Text Book for Laboratory Analysis of Water Quality	Book	A4	90	Orig	1	Ministry of Housing and Construction	Presented	R. Matsue	21 Feb. 2005
14	Environmental Guideline for the Works in the Field of Administration and Monitoring of Drinking Water	Book	A4	164	Orig	1	Ministry of Housing and Construction	Presented	R. Matsue	21 Feb. 2005
15	National Environmental Strategy and Action Plan of Syria (2003)	Book	A4	69	Orig	1	UNDP	Presented	R. Matsue	28 Feb. 2005
16	The Situation in Lattakia Lab.	Report	A4	3	Copy	1	Lattakia DFEA	Presented	R. Matsue	29 Dec. 2005
17	National Environmental Action Plan for Syrian Arab Republic	Book	A4	117	Orig	1	UNDP	Presented	R. Matsue	12 Jul. 2007
18	Administration of resulting rests of olive squeezing	Report	A4	7	Copy	1	Idleb DFEA	Presented	S. Sato	9 July, 2005
19	SASMO (Effluent standards in Syria)	Report	A4	10	Copy	1	Ministry of Irrigation	Presented	S. Sato	Jul., 2005
20	Program for Quality Control of the Laboratory Analysis by AEC	Report	A4	3	Copy	1	Ministry of Irrigation	Presented	S. Sato	Jul., 2006
21	Comments on the Study Report of "Industrial & Municipal Wastewater Treatment Plants in Industrial City Sheikh Najjar"	Report	A4	27	Copy	1	Dr. Ueno/SV	Presented	S. Sato	10 Jan., 2007
22	Instruction Manual of AA-6800 (Arabic)	Report	A4	88	Copy	1	Water Institute of Homs	Presented	K.KIMURA	8 Jan., 2006

Serial No.	Title	Type	Size	Page No.	Orig/Copy	No.	Provided or Issued by	Presented/ Purchased	Person in charge	Date
23	Instruction Manual of GFA-6500 (Arabic)	Report	A4	30	Copy	1	Water Institute of Homs	Presented	K.KIMURA	8 Jan., 2006
24	Instruction Manual of HVG-1 (Arabic)	Report	A4	30	Copy	1	Water Institute of Homs	Presented	K.KIMURA	8 Jan., 2006
25	Atomic Absorption Spectrophotometer Cookbook (English)	Report	A4	227	Copy	1	Shimadzu	Presented	K.KIMURA	17 Jan., 2007
26	Heavy metals in dewatered sludge	Report	A4	1	Copy	1	Adra Sewage Treatment Plant	Presented	K.KIMURA	26 Dec., 2005
27	The latest step in hydride analysis	Report	A4	1	Copy	1	ESRC	Presented	K.KIMURA	28 Dec., 2005
28	Air Quality Environmental Standard and Emission Standard	Report	A4	1	Copy	1	GCEA	Presented	M. Hirao	16 Jun. 2005
29	Air Quality of Syria	Report	A4	4	Copy	1	ESRC	Presented	M. Hirao	13 Nov. 2006