




## **Attachment 1: ステアリング委員会の協議議事録**

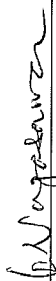
**Minutes of Meeting**  
on  
**the 1st Steering Committee**  
for  
**the Capacity Development of Environmental Monitoring at Directorates**  
for  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 12<sup>th</sup> January 2005

  
Dr. Akram Al-Khoury  
General Director,  
General Commission for Environmental  
Affairs  
Ministry of Local Administration and  
Environment

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

  
Eng. Helal Al-Atrash  
Minister of Local Administration and  
Environment

Witnessed by  
  
Mr. Kazuhide NAGASAWA  
Resident Representative  
JICA Syria Office  
Japan International Cooperation Agency

In accordance with the Record of Discussion signed on the September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (hereinafter referred to as "the Project"), the Government of Japan dispatched the Expert Team headed by Mr. Yoichi IWAI through the Japan International Cooperation Agency (JICA) for the implementation of the Project to the Syrian Arab Republic. The JICA Expert Team submitted the Draft Inception Report (Draft Ic/R) to the Syrian side in advance.

The 1st steering committee was started by an opening statement by the Minister of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash, who thanked the government of Japan and JICA for the efforts in the field of technical cooperation. Deputy Minister of MOLAE, Eng. Imad Hassoun, mentioned about the outline of the Project to the members of the steering committee. The General Director of the General Commission of Environmental Affairs (GCEA), Dr. Akram Al-Khoury, introduced the National Environmental Action Plan of the Syrian Arab Republic, then, the JICA Expert Team presented the outline of the Project described in the Draft Ic/R to the steering committee members.

The attendants of the meeting are listed per ANNEX-1, and the agenda for the 1st steering committee is attached per ANNEX-2.

The followings are the issues discussed and agreed upon in the meeting.



(1) Director of the Department of Water Pollution Control, Ministry of Irrigation, Eng. Atef Deeb, mentioned that the Ministry of Irrigation is in charge to achieve monitoring of the public water bodies in Syria, and commented that the concerned agencies should discuss and clarify a role of environmental monitoring in each agency.

The JICA Expert Team replied that;

- 1) the principle objective of the Project was to monitor pollution sources,
  - 2) the JICA Expert Team expected to cooperate with the Ministry of Irrigation to apply experiences and data accumulated, and
  - 3) the JICA Expert Team requested the Ministry of Irrigation to collaborate in the data management obtained through the Project.
- Dr. Akram replied that we know the Ministry of Irrigation is in charge of water quality monitoring, for that the Ministry of Irrigation is invited as a steering committee member.

(2) Minister of MOLAE, Eng. Helal Al-Atrash, commented that MOLAE had, according to Law No50, a role to check and inspect monitoring activities conducted by other authorities.

(3) Director of the Department of Studies and Environment, Ministry of Transport, Dr. Mahmoud Haffar, mentioned that air pollution could be serious especially in the big cities. Therefore, it is necessary to include the subject of air quality monitoring in the Project.

The JICA Expert Team replied that the Project already included air quality analysis for three cities (Damascus, Homs and Aleppo) by providing necessary equipment for the laboratories in Directorates for Environmental Affairs.

- (4) Director of the Department of Environmental Diseases, Ministry of Health, Dr. Mahmoud Karim, stated that this project was important even for the Ministry of Health because most environmental diseases were especially caused by water quality pollution. The cooperation among ministries concerning water quality monitoring was necessary in order to deal with problem related to water quality pollution. In addition to that, it was commented that the steering committee should be held more than once a year.
- The JICA Expert Team replied that the way of cooperation and the role of the Project should be considered further, and the steering committee meeting is planned to be held at least two times per year described in the Draft ICR.
- (5) Director of the Department of Water Pollution Control, Ministry of Irrigation, Eng. Atef Deeb, requested the JICA Expert Team to accept the staff of the Ministry of Irrigation within the training courses of the Project. The JICA Expert Team replied that training courses would be opened to the staff of the concerned stakeholders.
- (6) Director of the Environment, Ministry of Industry, Eng. Salem Ksaibeh, mentioned that discharge of untreated industrial wastewater was a serious problem in Syria, however, the staff of the Ministry of Industry did not have enough knowledge of industrial wastewater treatment. It is required to provide industrial wastewater treatment technology in the course of the Project. The JICA Expert Team replied that industrial wastewater treatment could not be covered fully in the Project, however, the JICA Expert Team would provide general information of industrial wastewater treatment technology and advices in the field.
- (7) General Director of GCEA, MOLAE, Dr. Akram Al-Khoury, mentioned that each authority currently had a role to monitor its concerning environment, and emphasized that this project was not only for MOLAE but also for concerned authorities related to monitoring activities. Therefore, it is required for ministries concerned and governorates to cooperate and exchange information.
- (8) Deputy Minister of MOLAE, Eng. Imad Hassoun, stated that the Syrian side committed to implement and participate to the Project. The Syrian side should advance the Project considering the importance of sustainability and self-reliance. And the Syrian side expects that the Project will not stop at stage in three years, and another stage will be continued, if the Syrian side is serious in achieving all activities of the Project.
- (9) Representative of the JICA headquarter, Mr. Eiji Iwasaki, commented that the partnership and



ownership of the Syrian side were very important factors for the implementation of the Project. The environmental monitoring needs the capability of monitoring as well as management. An accuracy of information and monitoring data was indispensable for promoting the capability of monitoring and management. An active information exchange is also required. So collaboration of concerned authorities is important, and the role of each authority in environmental monitoring should be defined.

- (10) The JICA Expert Team proposed that a representative of the Ministry of Education should be involved in the steering committee as a member. The Syrian side agreed with the involvement of a representative of Ministry of Education.



List of Attendants

Syrian Side  
 Ministry of Local Administration and Environment (MOLAE)  
 Eng. Helal Al-Atrash Minister  
 Eng. Imad Hassoun Deputy Minister  
 Dr. Bashar Almufti Governor of Damascus  
 Dr. Akram Al-Khoury General Director, GCEA

Environmental and Scientific Research Center  
 Prof. Mahmoud Saleh Seifman General Director

Ministry of Irrigation  
 Eng. Atef Deeb Director, Water Pollution Control Dept.

Ministry of Housing and Construction  
 Eng. Shurhabeel Hijazy Director, Central Laboratory

Ministry of Industry  
 Eng. Salem Ksaibeh Director, Environment Dept.

Ministry of Transport  
 Dr. Mahmoud Al-Haifor Director, Studies and Environment Dept.

Ministry of Health  
 Dr. Mahmoud Karim Director, Environmental Diseases Dept.

Japanese Side  
 Embassy of Japan  
 Mr. Takeshi OKUDA Second Secretary

JICA  
 Mr. Eiji IWASAKI JICA Headquarter  
 Ms. Chitka TAKAHATAKE JICA Headquarter  
 Mr. Kazuhide NAGASAWA Resident Representative, JICA Syria Office  
 Mr. Naoli TAKECHI Project Formulation Advisor, JICA Syria Office  
 Dr. Bachar IBRAHIM Advisor, JICA Syria Office  
 Ms. Marah Morad Programme Officer, JICA Syria Office

JICA Expert Team  
 Mr. Yoichi IWAI Team Leader/Environmental Management  
 Dr. Ryunan MATSUE Water Quality (Basic Analysis)  
 Mr. Kazuyuki SATO Environmental Education  
 Mr. Takahiro KAMISHITA Coordinator/Procurement  
 Ms. Nada Kat Assistant  
 Mr. Mohammed Aldouboush Assistant




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

Agenda for the 1<sup>st</sup> Steering Committee**1. Date:**

- Jan. 12 (Wed), 12:00-14:00: at meeting room in MOLAE

**2. Agenda**

1. Opening Statement  
 (by the Minister of MOLAE) 12:00-12:05

2. Remarks  
 (by the Resident Representative of JICA Syria Office) 12:05-12:10

3. Presentation-1: Environmental Management System in Syria  
 (by General Director of GCEA) 12:10-12:20

4. Presentation-2: Draft Inception Report of the Project  
 (by the JICA Expert Team) 12:20-13:00

5. Q and A 13:00-13:40

6. Closing Remarks  
 (by the Minister of MOLAE) 13:40-13:50

7. Preparation of draft M/M  
 (by the JICA Expert Team) 14:00-

End

**Minutes of Meeting**  
on  
**the 2nd Steering Committee**  
for  
**the Capacity Development of Environmental Monitoring at Directorates**  
for  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 23<sup>rd</sup> February 2005



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Eng. Imad Hassoun  
Deputy Minister  
Ministry of Local Administration and  
Environment



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



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Eng. Helal Al-Atrash  
Minister,  
Ministry of Local Administration and  
Environment

Witnessed by



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Mr. Kazuhide NAGASAWA  
Resident Representative  
JICA Syria Office  
Japan International Cooperation Agency

In accordance with the Record of Discussion signed on the September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 2<sup>nd</sup> Steering Committee (St/C) was held on 23<sup>rd</sup> February 2005. The 2<sup>nd</sup> Steering Committee (St/C) was started by an opening statement by the Minister of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash. Under the chairmanship by the Minister, the resident representative of the JICA Syria Office, Kazuhide Nagasawa, introduced the current situation of the Project. Then, the JICA Expert Team presented the contents of the Project described in the Inception Report (Ic/R) to the St/C members. The St/C generally agreed on the contents of Ic/R submitted by the JICA Expert Team, and confirmed the necessity of further discussion in the next St/C meeting based on a note prepared by the St/C members.

The attendants of the meeting are listed per ANNEX-1. The agenda and the discussion paper submitted for the 2<sup>nd</sup> St/C are attached per ANNEX-2 and ANNEX-3, respectively.

The followings are the issues discussed and agreed upon in the meeting.

1. Minister of MOLAE, Eng. Helal Al-Atrash, requested the JICA Expert Team to explain the reason why the Environmental Studies Center (ESC) has not been selected as the target of the Project. The JICA Expert Team replied that the principal objective of the Project is to establish regular environmental system, so ESC would not be suitable as a direct target of the Project considering its research oriented activities. The JICA Expert Team mentioned the importance of cooperation and support from SERC for successful implementation of the Project.
2. Governor of the Damascus Governorate, Dr. Bashar Almofti, mentioned no questions and no objections on the presentation made by the JICA Expert Team. Then, the Minister of MOLAE, Eng. Helal Al-Atrash, asked the St/C members to check and review the Ic/R and to prepare a note for further discussion on the next St/C. The Minister also mentioned that the public awareness among local communities should be emphasized by using mass media and media events as the Environment Cleaness Law explicitly stated.
3. Director of the Department of Environmental Diseases, Ministry of Health, Dr. Mahmoud Karim, expressed his intention to participate a training course of the Project. The JICA Expert Team replied that it is welcome, and dispatching trainers to the Project will be highly appreciated. The Director of the Department of Environmental

Diseases agreed the request from the JICA Expert Team.

4. Director of the Department of Studies and Environment, Ministry of Transport, Dr. Mahmoud Haffar, expressed the possibility to provide materials and information related to air pollution which the Ministry of Transport has, for preparation of a training program of the Project, and he questioned whether fixed stations for air quality monitoring will be selected in the Project. He also mentioned the importance of the public awareness program taking care of willingness of all people and communities. The JICA Expert Team replied that several fixed stations shall be selected for air quality monitoring in the course of the Project, and the collaboration with the Ministry of Transport is indispensable to select proper monitoring stations taking non-point air pollution sources into account.
5. Director of the Department of Water Pollution Control, Ministry of Irrigation, Eng. Atef Deeb, commented that the equipment for pesticides analysis should be provided to the DFEA in Damascus for groundwater quality monitoring. The JICA Expert Team replied that it seems be difficult for the DFEA in Damascus to deal with pesticide analysis considering its current capacity, and it could be more practical to ask pesticide analysis to the laboratories of the Ministry of Irrigation in case.
6. Head Supervisors of Science, Ministry of Education, Dr. Omar Abou Awil, introduced the policy of environmental education of the Ministry informing there are around 4 million students in Syria. He questioned what kind of actions will be taken for the environmental education in the Project. The JICA Expert Team answered that activities concerning the environmental education are planned to be conducted providing simple water quality analysis kits to pupils considering the current capacity of DFEA. The JICA Expert Team requested the Ministry of Education to cooperate for actual promotion of the environmental education of the Project.
7. Governor of Damascus, Dr. Bashar Almofti, introduced several experiences of environmental education activities taken by the Governorate and NGOs in the Damascus Governorate. He stressed the importance of environmental education and expressed his keen expectation on further promotion of public awareness and environmental education through implementation of the Project. The JICA Expert Team expressed great thanks to the commitment of the Governor, and replied to address to public awareness and environmental education eagerly through the Project for more effective usage of the monitoring data and information related to the environment.

8. Governor of Damascus, Dr. Bashar Almofti, reminded to the S/C members to submit a note describing comments and suggestions to the Project for further discussion in the next S/C will be held in July 2005. Then, the Governor stated the closing remarks of the 2<sup>nd</sup> S/C.

List of AttendantsSyrian Side

Name	Position	Organization
Eng. Helal Al-Atrash	Minister	MOLAE
Eng. Imad Houssein	Deputy Minister	MOLAE
Dr. Bashar Almufti	Governor of Damascus	Damascus Governorate
Prof. Dr. Mahmoud Saleh Seliman	General Director	Environmental Studies Center (ESC)
Eng. Atef Deeb	Director, Water Pollution Control Dept. Central Laboratory	Ministry of Irrigation
Eng. Bassem Al-Kisheh		Ministry of Housing and Construction
Eng. Salem Ksaibeh	Director, Environment Dept.	Ministry of Industry
Dr. Mahmoud Al-Haffar	Director, Studies and Environment Dept.	Ministry of Transport
Dr. Mahmoud Krayem	Director, Environmental Diseases Dept.	Ministry of Health
Dr. Omar Abou Awm	Head Supervisors of Science	Ministry of Education

Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Mr. Naoki Takechi	Project Formulation Advisor	JICA Syria Office
Dr. Bachar Ibrahim	Advisor	JICA Syria Office
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Dr. Ryunan Matsue	Water Quality (Basic Analysis)	JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter	JICA Expert Team

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

Agenda for the 2<sup>nd</sup> Steering Committee**1. Date:**

- Feb. 23 (Wed), 12:00-13:30: at meeting room in MOLAE

**2. Agenda**

- 1. Opening Statement**  
(by the deputy Minister of MOLAE) 12:00-12:05
- 2. Remarks**  
(by the Resident Representative of JICA Syria Office) 12:05-12:10
- 3. Presentation: Inception Report of the Project**  
(by the JICA Expert Team) 12:10-12:40
  - 1) Confirmation of principal roles of the Steering Committee
  - 2) Collaboration with other Ministries related to environmental monitoring
  - 3) Roles of the Technical Committee
  - 4) Key modified points of the Draft Inception Report
- 4. Q and A** 12:40-13:20
- 5. Closing Remarks**  
(by the Governor of Damascus) 13:20-13:30
- 6. Preparation of draft M/M**  
(by the JICA Expert Team) 13:30-

*End*

## Discussion Paper for the 2nd Steering Committee

on

### The Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs

#### 1. Clarification of the Roles of Ministries concerning to the Environmental Management and Monitoring

##### 1.1 Environment Protection Council (EPC)

The primary responsibility of EPC is for setting national policy on environment and coordinating environmental management activities within government. The EPC is an inter-ministerial body, over which the Prime Minister presides, comprising the Ministers of Local Administration and Environment, Interior, Finance, Irrigation, Agriculture and Agrarian Reform, Transportation, Media, Industry, Electricity, State Planning, Health, Petroleum and Mineral Resources, Information, Communications and Technology, Tourism, Education, Social Affairs and Labor, Housing and Utility, and other state authorities. The meeting of EPC is an ad hoc basis, basically whenever the Ministry of Local Administration and Environment present a proposal for its approval.

The mandates of EPC are;

- To issue national policies and plans for environmental protection,
- To set standards for pollution control,
- To issue requirements for industrial operations and activities with negative impacts on the environment, and
- To take actions necessary to suspend, prevent, and impose restrictions on polluting activities.

Policy proposals are presented to EPC by the Ministry of Local Administration and Environment (MOLAE), which developed by a number of inter-sectoral Environmental Committees. These committees meet monthly to address environmental issues incorporating non-governmental participation such as academics and industry groups, and may develop policies covering a range of topics, including 1) environmental laws and international conventions, 2) water and air quality, 3) energy production and industrial activities, 4) soil protection, 5) biodiversity conservation, 6) public participation, 7) environmental education, 8) chemical safety, 9) coastal zone management and protection, 10) urbanization, and 11) natural resources management and conservation.

##### 1.2 The Ministry of Local Administration and Environment (MOLAE)

The MOLAE is the new lead ministry on environment which is established in 2003 by unifying the Ministry of Local Administration and the Ministry of Environment, and carry out policy formation, inter-sectoral coordination, and regulatory and research functions. Under MOLAE, the General

Commission for Environmental Affairs (GCEA) which is the technical arm of MOLAE, and the Scientific and Environmental Research Center (SERC) which is the research arm of MOLAE are the major agencies for environmental administration in the central level. Besides, the Directorate for Environmental Affairs (DFEA) in 14 Governorates is established in order to implement and enforce the adopted environmental policies on the local level.

#### (1) The General Commission for Environmental Affairs (GCEA)

The GCEA is responsible for advising MOLAE on policy and technical issues at both the central and local levels. It is formulated with the fundamental objective of establishing the technical framework for environmental protection and prevention of pollution in Syria having the following functions;

- 1) To review and study environmental problems,
- 2) To prevent and mitigate new environmental problems,
- 3) To prepare laws, regulations, and standards,
- 4) To raise environmental awareness,
- 5) To control usage of hazardous substances,
- 6) To assess and review actual and potential impacts on environment,
- 7) To study international agreements and their importance to Syria, and
- 8) To implement technical support and guidance to the Directorate for Environmental Affairs (DFEA) in each Governorate.

In 2003, GCEA consists of 10 directorates, 2 departments, and 3 offices with 98 staff in total as shown in Figure 1.1. Its operating budget for 2003 was about 26 million Syrian pounds (Sp).

#### (2) Environmental Studies Center (ESC)

The ESC is a national center for scientific and environmental study and research established in 1991. Its fundamental mandates are as follow;

- 1) To conduct study for setting national environmental standards,
- 2) To monitor environmental pollution at national level,
- 3) To create an environmental information system to coordinate with Arab and international organizations,
- 4) To check laboratory facilities for scientific and environmental research,
- 5) To publish the research results,
- 6) To cooperate with Arabian and international scientific research centers, and
- 7) To carry out study and research on materials and activities to threaten the environment.

In order to carry out these functions, the ESC has laboratory facilities in Damascus with 1) Technical Division, 2) Laboratory Division, 3) Administration Division, 4) Finance Division, and 5) Environmental Study Division (planned in 2004), with staff around 60 in total. According to the Report



of the State of the Environment in Syria (WB/UNDP, 1998), ESC had operating budget about 38 million Syrian pounds (Sp) in 1997.

**(3) The Environmental Committee in Governorate**

The Environmental Committee is established in each Governorate and delegates with the following functions in the local level;

- 1) To decide and follow-up activities related to environmental protection on the Governorate level within the framework of the national environmental policy,
- 2) To review on implementation of the environmental specifications and pollution standards,
- 3) To monitor the compliance of industrial establishments, the licensing for operation, and other negative impacts on the environment,
- 4) To assist in the establishment and implementation of emergency plans to deal with environmental disasters on the Governorate level, and
- 5) To submit an annual report to MOLAE which describes the state of the environment, and problems and adopted remedial measures in the Governorate.

**(4) The Directorate for Environmental Affaires (DFEA)**

The Directorate for Environmental Affaires (DFEA) is one of directorates in the Governorate and has a leading role for dealing with environmental issues in the Governorate. The DFEA is also the vice president of the Environmental Committee in the Governorate. The DFEA is established in each Governorate with the following functions

- 1) To conduct environmental monitoring and analysis,
- 2) To cope with environmental issues and citizen's complaints on the environment,
- 3) To work closely with the Environmental Committee to ensure effective enforcement and implementation of the national policies and programs, and
- 4) To appraise EIA and to review the negative impacts on the environment caused by the permitted activities.

**1.3 The Ministry of Irrigation**

The Ministry of Irrigation is responsible for maintaining and protecting all public water bodies in Syria, including rivers, lakes, coastal waters, springs, and groundwater. In the Ministry, the Water Pollution Control Department has broad authority under the Law 2145 (1971) to regulate and control water pollution sources. It also has the Water Pollution Directorate in 7 river basins, which conduct water quality monitoring and control activities with an extensive water monitoring network. The Ministry of Irrigation also has its own laboratories for monitoring and analysis in each river basin and monitors water quality regularly in nation wide. Under the Law, the Ministry of Irrigation has the following authorities;

- 1) To issue regulations related to water quality criteria and discharge limitations in the public water bodies,
- 2) To sample and analyze water quality,
- 3) To inspect facilities causing water pollution, and
- 4) To advise polluters for reducing water pollution and for complying standards and criteria.

Due to its broad mandates on protection of water resources, however, some clarification and demarcation of responsibilities is required especially for the pollution source control with MOLAE and the Ministry of Industry, for the drinking water quality with the Ministry of Housing and Construction. At present, the following demarcation of responsibilities seems to be considered between the Ministry of Irrigation and MOLAE. Although each Ministry has a different objective on environmental management and monitoring, it is crucial to cooperate and share of data and information for achievement of each objective.

**Demarcation between the Ministry of Irrigation and MOLAE**

Item	Ministry of Irrigation	MOLAE
<b>1. Monitoring</b>		
1) Target	-public water body	-pollution source and its surrounding area
2) Objective	-sustainable water resource use	-environmental protection
3) Analysis Item	-basic and common items including specific items depending on usage	-chemical, biological, and heavy metals in addition to basic items
4) Method	-regular monitoring	-regular and ad hoc monitoring
<b>2. Standard</b>	-water quality criteria for resource use	-environmental standard as an administrative goal
<b>3. Pollution Control</b>		
1) Survey and inspection	-direct survey and inspection	-direct survey and inspection
2) Enforcement	-indirect enforcement -report and request to the Environmental Committee and DFEA	-direct enforcement to pollution sources through the Environmental Committee and DFEA

**1.4 The Ministry of Industry**

The Ministry of Industry is responsible for overseeing the operation industries in public and private sector because of their strategic importance to the national economy and the public welfare. There are more than 100 industries in Syria including some of the heaviest polluters on the environment such as textiles, tanneries, chemicals, refineries, foods, and cements. Although the Ministry of Industry has no effective enforcement authority on environment, the Directorate of Scientific and Technical Affaires in the Ministry of Industry supervises issues of air and water pollution control, safety, and health, and works jointly with the environmental committees in each of public sector industries and with the Environmental Committee in the Governorate to provide guidelines for pollution prevention and control.

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### 1.5 The Ministry of Health and the Ministry of Housing and Construction

The Ministry of Health is broadly responsible for the public health sector including prevention and control of environmental related health problems and diseases. In the Ministry of Health, the Department of Environmental Diseases operates in the framework of the primary health care to address drinking water quality, sanitation, air contamination, and food safety issues. The Ministry of Housing and Construction is responsible mainly for water supply, sewerage, and urban drainage, and its role is directly connected to the roles of the Ministry of Health both in the safety of drinking water quality and the public health by proper sanitation. These two Ministries are not directly concerned to the environmental monitoring, but surely have important responsibility for citizen's health and quality of life through dealing with various kinds of complaints through the Environmental Committee in the Governorate.

### 1.6 The Ministry of Transport

The Ministry of Transport is responsible for the social and economic infrastructures on transportation sector such as roads and bridges, airports, ports and harbors, and railways including traffic control and management. The transportation sector is one of the major pollution sources of air pollution, noise, and vibration hazards as well as the industrial and energy sector. It means that this sector has an important role to control and management of environment especially for air pollution in the cities and road sides. Therefore, collaboration of the Ministry of Transport with MOLAE as well as the Ministry of Industry is essential for public air quality monitoring and prevention of air quality pollution.

### 1.7 The Ministry of Education

The Ministry of Education is fully responsible for the education system from primary to university and its implementation. Due considering the importance of national education, the Ministry of Education has the exclusive right for planning, implementation, and decision on the public education and schooling to be built in the governmental policy on education sector. Very high attending rate to primary school (96% in 2003) and high literacy rate (72% in ages from 15 to 24 in 2003) prove great efforts of the Ministry of Education.

As stated in the ninth 5-year development plan, the government of Syria stressed the importance of dealing with environmental problems and public awareness on the environment. In this connection, it is important for further collaboration and cooperation on environmental awareness between the Ministry of Education and MOLAE through environmental education to the pupils and citizens in Syria.

### 1.8 Summary

As described in the previous sections, several ministries and agencies have conducted the environmental monitoring and management in different purposes and methods. The Table 1.1 summarizes the current requirement and situation of the environmental monitoring and management of concerned ministries. Based on this understanding, necessary and conceivable collaboration and cooperation among MOLAE

and concerned ministries should be established for the successful implementation of the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs (the Project).

Table 1.1 Environmental Monitoring and Management of Concerned Ministries

Item	Principal Objective	Tools for Enforcement	Major Target	Monitoring Parameters
1. MOLAE	-environmental protection -pollution source control	-laws and regulations related to environmental protection -environmental standards of air and water quality -EIA and environmental inspection	-pollution sources and surrounding area -complaints from citizens	-basic water quality -chemical and biological analysis -heavy metals and other specific substances -ambient air quality substances
2. M. of Irrigation	-sustainable water resource use -compliance of water quality standard of public water bodies	-laws and regulations related to water resource protection -water quality standard for resource use	-public water bodies	-basic water quality -chemical and biological analysis -heavy metals -agricultural and pesticides
3. M. of Industry	-pollution source control -compliance with discharge and emission standards	-laws and regulations related to industrial development and control -wastewater discharge standard -exhausted gas emission standard	-pollution sources	-air and water quality substances to be discharged from industrial activities
4. M. of Health	-protection of public health -safety of tap water	-laws and regulations related to public health	-tap water -raw water for drinking purpose	-waterborne and epidemic diseases -harmful and hazardous substances for public health
5. M. of Housing and Construction	-drinking water supply and improvement of sanitation	-laws and regulations related to water supply and sanitation -potable water quality standard -wastewater discharge standard	-raw water quality for treatment for domestic and industrial purposes -wastewater quality for treatment	-substances for drinking water quality -substances for controlling wastewater treatment
6. M. of Transport	-sustainable development of transportation infrastructure -management of traffic volume	-laws and regulations related to transportation -exhausted gas emission standard	-traffic volume -air quality substances concerning to mobile pollution sources	-air quality substances concerning to mobile pollution sources

## 2. Clarification of Functions of the Steering Committee (S/C) and the Technical Committee (T/C)

### 2.1 Steering Committee (S/C)

According to the Record Discussions agreed between the Syrian side and the Japanese side on September 9 in 2004, the functions of S/C are described as follows:

- 1) To formulate the annual operational work plan of the Project based on the Tentative Schedule of Implementation within the framework of the Record of Discussions (R/D),
- 2) To review the result of the annual operational work plan and the progress of the Project, and
- 3) To review and exchange opinions on major issues that arise during the implementation of the Project.

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Since the S/C consists of concerned 7 Ministries including the Ministry of Education and the Governorate of Damascus, the inter-ministerial issues should be discussed in S/C. The Table 2.1 summarizes the principal implication of the environmental monitoring and management among the S/C members. Therefore, it is proposed that the subjects and issues in this Table should be discussed in S/C in addition to the matters described in R/D.

Table 2.1 Implication of the Project with the S/C Members

Items	Environmental Monitoring and Management in MOLAE			Public Awareness
	Planning of Monitoring	Implement'n of Monitoring	Management of Monitoring Data and Lab	
1. M. of Irrigation	1)exchange annual monitoring plan of water quality 2)dispatching trainers	1)coincidence of sampling date and comparative analysis	1)data sharing and co-analysis 2)exchange views on water quality 3)preparation of water quality data base 4)experiences of O/M of lab 5)cooperation for dealing with complains through EC	1)data and information disclosure
2. M. of Industry	1)share pollution source data and information 2)monitoring plan of pollution sources	1)co-inspection 2)co-action to complains	1)data sharing and information exchange through EC 2)registration of pollution sources 3)cooperation for dealing with complains through EC	1)data and information disclosure
3. M. of Health	1)share pollution source data and information 2)monitoring plan of pollution sources	-	1)data and information exchange through EC 2)cooperation for dealing with complains through EC	-
4. M. of Housing and Construction	1)share pollution source data and information 2)monitoring plan of pollution sources	-	1)data and information exchange through EC 2)cooperation for dealing with complains through EC	-
5. M. of Transport	1)selection of air quality monitoring station by traffic volume data 2)monitoring plan of air quality	-	1)data sharing and co-analysis 2)exchange views and publication 3)cooperation for dealing with complains through EC	1)data and information disclosure
6. M. of Education	-	-	-	1)planning of public awareness and E&E 2)sharing results and exchange views 3)media events and after school activities 4)workshops with citizens and NGOs
7. Governorate of Damascus	1)planning and report of monitoring through EC	1)actual implementation of monitoring plan in DFEA 2)dealing with complains	1)data sharing and information exchange through EC 2)dealing with complains through EC 3)roles as a center lab for environmental monitoring	1)planning of public awareness through EC 2)sharing results and exchange views of media events and workshops 3) data and information disclosure
8. ESC	1)dispatching trainers	1)wastewater treatment plant from lab	1)data sharing and co-analysis	-

note: DFEA=Directorate for Environmental Affairs, EC=Environmental Committee, E&E=environmental education, lab=laboratory

### 2.2 Technical Committee (T/C)

According to R/D, the functions of T/C are described as follows;

- 1) To formulate the monthly operational work plan and contents of activities of the Project based in line with the annual operational work plan of the Project,
- 2) To review the progress of the Project as well as the operational work plan,
- 3) To evaluate the achievement of the objectives, and
- 4) To exchange views on issues arising from or in connection with the Project.

The T/C mostly consists of the members of GCEA in MOLAE, so the inner-ministerial subjects and issues should be discussed in T/C. Considering the components of the Project, the subjects and issues to be discussed in T/C could be broadly divided 3 groups, namely 1) Operation and maintenance (OM) of laboratory, and water quality monitoring, 2) Air quality monitoring, and 3) Public awareness and environmental education. Therefore, it is proposed to formulate the following 3 Working Groups in T/C, and each working group should discuss subjects and issues specified to the working group by S/C and GCEA.

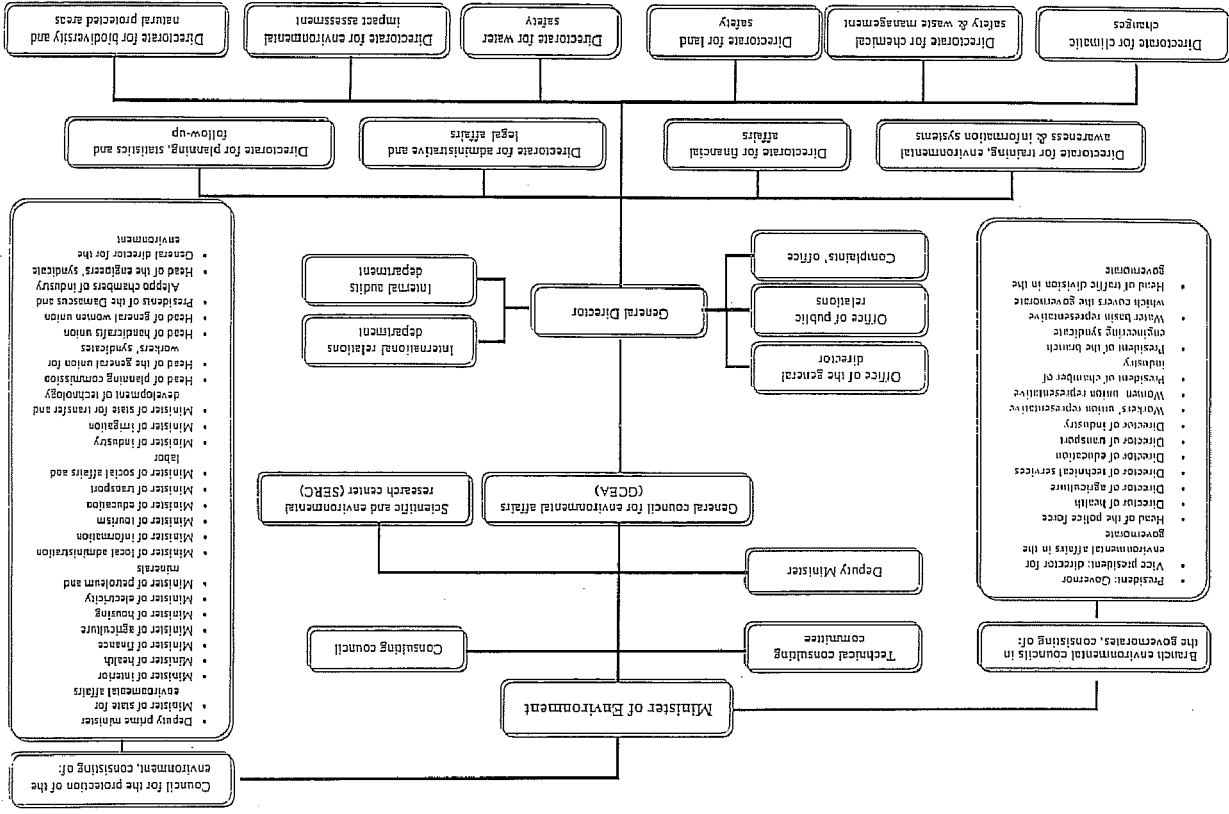
#### Working Group and Members of T/C

Member of Technical Committee	Working Group		
	O/M lab & Water quality monitoring	Air quality monitoring	Public awareness and Env'tal education
1. General Director of GCEA	⊙	⊙	⊙
2. Director of D. for Water Safety	○	-	○
3. Director of D. for Chemical Safety	○	-	○
4. Director of D. for Atmosphere Safety	-	-	○
5. Director of D. for Training & Env'tal Awareness	-	-	○
6. Director of D. for Information and Systems	○	○	○
7. Director of D. for Planning and Follow-up	○	○	○
8. Director of D. for Laboratories	○	○	○
9. Director of Damascus Directorate	○	○	○
10. Director of Damascus Countryside Directorate	○	○	○
11. Director of Aleppo Directorate	○	○	○
12. Director of Homs Directorate	○	○	○
13. Director of Hamn Directorate	○	○	○
14. Director of Latakia Directorate	○	○	○
15. Director of Dier ez Zor Directorate	○	○	○
16. Director of Idlib Directorate	○	○	○
17. Director of Hasekeh Directorate	○	○	○
18. Director of Al Rakku Directorate	○	○	○
19. Director of Sweida Directorate	○	○	○
20. Director of Dair'a Directorate	○	○	○
21. Director of Tartus Directorate	○	○	○
22. Director of Quneitra Directorate	○	○	○
23. Director of Env'tal Research Laboratory, HIAST	○	○	-
24. Atomic Energy Commission	○	○	-
25. Central Laboratory, M. of Irrigation	○	○	-
26. Central Laboratory, M. of Economy and Trade	○	○	-

note: ⊙=chairman, ○=members

End

Figure 1.1 Organizational Structure of the Ministry of Environment



Source: National Environmental Strategy and Action Plan in Syria, MOLAE/WB/UNDP, Dec. 2003

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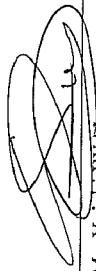
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**Minutes of Meeting**  
**on**  
**The 3rd Steering Committee**  
**for**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**for**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 21 September 2005

  
 Eng. Imad Hassoun  
 Deputy Minister  
 Ministry of Local Administration and  
 Environment

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

X   
 Eng. Helal Al-Atrash  
 Minister,  
 Ministry of Local Administration and  
 Environment

Witnessed by  
  
 Mr. Kazuhide NAGASAWA  
 Resident Representative  
 JICA Syria Office  
 Japan International Cooperation Agency

In accordance with the Record of Discussion signed on the September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 3rd Steering Committee (St/C) was held on 21 September 2005. The 3rd St/C was started by an opening statement by the Minister of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash. Under the chairmanship by the Minister, the Resident Representative of the JICA Syria Office, Kazuhide Nagasawa, introduced the current situation of the Project.

Then, the JICA Expert Team presented a technical proposal for establishment of a networking system between the General Commission for Environmental Affairs (GCEA) and the Directorate for Environmental Affairs (DFEAs) GCEA authorized by the 5th Technical Committee (T/C) held on 18 September, 2005, and the contents of the Progress Report (1) (Pr/R-1) to the St/C members. The St/C generally agreed the contents of Pr/R-1 submitted by the JICA Expert Team.

An attendant list and agenda of the 3rd St/C meeting are attached per ANNEX-1 and ANNEX-2, respectively.

The followings are the issues discussed and agreed upon in the meeting.

1. Minister of MOLAE, Eng. Helal Al-Atrash, questioned a reason of taking different strategy on technical cooperation of environmental monitoring between in Egypt and Syria, and its current result. The JICA Expert Team, Mr. Yoichi Iwai, replied that the selection of a cooperation strategy is a matter of JICA, and the current achievement of the Cairo Central Center (CCC) in the Egyptian Environmental Affaires Agency (EEAA) seems to be successful, but personal impression only. The Resident Representative of the JICA Syria, Mr. Hidekazu Nagasawa, additionally answered that the strategy applied in Egypt could not be suitable for Syria because it would take much longer time, so JICA decided to take different strategy for Syria tackling both GCEA and DFEAs at one time. Mr. Hidekazu Nagasawa commented to the Syrian side for quick catching up to Egypt on environmental monitoring aspect suggesting further collaboration with EEAA/CCC in Egypt. In this point, Deputy Minister of MOLAE, Eng. Imad Hassoun, commented that this parallel approach could be effective in Syria.

2. Minister of MOLAE, Eng. Helal Al-Atrash, also questioned an approach of air quality monitoring. The JICA Expert Team replied that the approach in Homs and Aleppo



should focus on fixed pollution sources, but in Damascus it should focus on mobile pollution sources.

3. The S/C members recognized the importance of establishment of a networking system between GCEA and DFEAs, and unanimously agreed to request JICA for additional assistance of this proposal in the course of the Project. The JICA Expert Team mentioned to convey this request of S/C to the JICA Head Quarters.
4. Deputy Minister of MOLAE, Eng. Imad Hassoun, questioned about training on preparation of monitoring plan. The JICA Expert Team, Mr. Yoichi Iwai, replied that the training of preparation of monitoring plan is included in the Project, and the JICA Expert Team will train the counterpart personnel (C/P) through specific training course.
5. Director of the Department of Studies and Environment, Ministry of Transport, Dr. Mahmoud Hafifar, requested to invite the staff of the ministry to a training course of air quality of the Project. The JICA Expert Team, Mr. Yoichi Iwai, replied that it could be possible, and its program would be sent to the Ministry of Transport in advance. Dr. Mahmoud Hafifar also questioned whether the Project would cover actual control measures besides the monitoring activities. Mr. Yoichi Iwai answered that the Project could cope with countermeasures to be taken by MOLAE in collaboration with other directorates in GCEA and MOLAE in accordance with general demarcation of responsibility among ministries on the environment.
6. Deputy Director of DFEA in Damascus, Ms. Wadia'a Jeha Khouri, questioned about possibility of receiving same equipment like CCC in Egypt and of visiting Japan for training. The JICA Expert Team, Mr. Yoichi Iwai, replied that the receiving similar equipment could be possible, but it must be decided by JICA considering the achievement results of the Project. Then, Mr. Yoichi Iwai explained much more effective and advantageous points of the training in Egypt for C/P of the Project compared with that in Japan.
7. Deputy Minister of MOLAE, Eng. Imad Hassoun, mentioned about the importance of disclosure of the monitoring data through publications and web-site. In this connection, the JICA Expert Team, Mr. Yoichi Iwai, confirmed 1) the monitoring data should be under the Quality Assurance and Quality Control (QA/QC) system for open to the public, 2) the monitoring data obtained by DFEAs should be sent to GCEA using network system and data should be controlled by GCEA, and 3) more



effort would be required for information disclosure on the environmental management and monitoring in Syria.

8. General Director of the Science and Environmental Research Center (SERC), Dr. Mahmoud Saleh Seleiman, commented that the way in Egypt could be more correct than the way of Syria because the well established central laboratory will be able to support the regional branch office but the regional branch office can not support the central laboratory. Dr. Mahmoud Saleh Seleiman, also announced that there is no objection for SERC to have a function of reference laboratory. In this point, Deputy Minister of MOLAE, Eng. Imad Hassoun, emphasized to establish a reference laboratory in GCEA beside SERC.
9. The First Secretary in the Embassy of Japan, Mr. Takeshi Okuda, questioned to the JICA Expert Team related to serious problems and issues to be discussed in the mid-term evaluation of the Project. The JICA Expert Team, Mr. Yoichi Iwai, replied that there are no serious problems in the actual implementation of the Project so far, but the following 3 issues could be highlighted to be discussed further in S/C and T/C:
  - 1) Strategy of Pollution Source Management and Control,
  - 2) Management of Regional Specific Environmental Issues, and
  - 3) Establishment of a Reference Laboratory.
10. After the series of discussions, the Minister of MOLAE, Eng. Helal Al-Atrash addressed thanking remarks on fruitful discussions to the S/C members and rapped up the 3rd S/C.



List of AttendantsSyrian Side

Name	Position	Organization
Eng. Helal Al-Atrash	Minister	MOLAE
Eng. Imad Hassoun	Deputy Minister	MOLAE
Prof. Dr. Mahmoud Saleh Seidman	General Director	Science and Environmental Research Center (SERC)
Eng. Bassam Al-Kisheh	Central Laboratory	Ministry of Housing and Construction
Eng. Salem Ksaibeh	Director, Environment Dept.	Ministry of Industry
Dr. Mahmoud Al-Hafjar	Director, Studies and Environment Dept.	Ministry of Transport
Eng. Mohammed Fawzi Azzien	Communicable Studies Department	Ministry of Health
Ms. Wadia'a Jaha Khouri	Deputy Director of Damascus DFEA (Acting for the Governor of Damascus Governorate)	Damascus Governorate

Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Mr. Takeshi Ohtsuka	First Secretary	Embassy of Japan
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Ms. Marath Morad	Program officer, Health and Environment Sector	JICA Syria Office
Mr. Ghassan Habbal	Economical Section	Embassy of Japan
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Mr. Mohammed Aldoubosh	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 3rd Steering Committee

## 1. Date:

- Sept. 21 (Wed), 11:00-12:30: at meeting room in MOLAE

## 2. Agenda


1. Opening Statement  
(by the Minister of MOLAE) 11:00-11:05
2. Remarks  
(by the Resident Representative of JICA Syria Office) 11:05-11:10
3. Presentation: Progress Report (1) of the Project  
(by the JICA Expert Team) 11:10-11:40
  - 1) Progress of the Project
  - 2) Proposal of Networking between GCEA and DFEAs
  - 3) Review of the Project Activities
  - 4) Next Schedule of the Project
4. Discussion and Q/A 11:40-12:20
5. Closing Remarks  
(by the Minister of MOLAE) 12:20-12:30
6. Preparation of the draft M/M  
(by the JICA Expert Team) 12:30-

End

**Minutes of Meeting**  
on  
**The 4th Steering Committee**  
for  
**The Capacity Development of Environmental Monitoring at Directorates**  
for  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

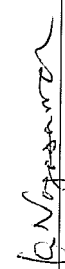
Damascus, 05 March 2006

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

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

Witnessed by

Eng. Helal Al-Atrash  
Minister,  
Ministry of Local Administration and  
Environment

  
Mr. Kazuhide NAGASAWA  
Resident Representative  
JICA Syria Office  
Japan International Cooperation Agency

In accordance with the Record of Discussion signed on the September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 4th Steering Committee (St/C) was held on 5 March 2006 with attendance of the new Governor of Damascus Governorate, Dr. Bisher Al Sabban. The 4th St/C was started by an opening statement by the Minister of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash. Under the chairmanship by the Minister, the Resident Representative of the JICA Syria Office, Kazuhide Nagasawa, introduced the current situation of the Project.

Then, the JICA Expert Team presented a current progress and a plan of the next stage based on the Progress Report (2) (Pr/R-2) to the St/C members. The St/C generally agreed the contents of Pr/R-2 submitted by the JICA Expert Team.

An attendant list and agenda of the 4th St/C meeting are attached per ANNEX-1 and ANNEX-2, respectively.

The followings are the issues discussed and agreed upon in the meeting.

1. Minister of MOLAE, Eng. Helal Al-Atrash, expressed high interest to the Project and confirmed the current situation of the Project especially focusing on C/Ps, networking GCEA and DFEAs, lab wastewater treatment, and cooperation by all concerned ministries and agencies.
2. Deputy Minister of MOLAE, Eng. Imad Hassoun, commented that the installation of the facilities to treat lab wastewater should be urged because it is the responsibility of Syrian side as described in R/D of the Project, and its grand design and detailed specification should be discussed with the JICA Expert Team.
3. General Director of GCEA, Dr. Akram S. Al Khoufi, commented that the quality and quantity of C/Ps are crucial matters of the Project, and GCEA commits to deal with this matter as much as possible introducing a grouping pool of C/Ps by certain levels.
4. General Director of the Science and Environmental Research Center (SERC), Dr. Mahmoud Saleh Seleiman, commented that a quality level of the equipment provided by JICA in this Project is not so complicated, and the Project should be expand in future when the skills of C/Ps would be more advanced. The JICA Expert Team, Mr. Yoichi Iwai, replied that JICA selected the equipment considering current levels and



ANNEX-1

List of Attendants

Syrian Side

Name	Position	Organization
Eng. Helal Al-Atrash	Minister	MOLAE
Dr. Bisher Al Sabban	Governor	Damascus Governorate
Eng. Imad Hassoun	Deputy Minister	MOLAE
Dr. Akram Khouri	Director General	GCEA
Prof. Dr. Mahmoud Saleh Seieiman	General Director	Environmental Studies Center (ESC)
Eng. Bassem Al-Kisheh	Central Laboratory	Ministry of Housing and Construction
Eng. Salem Ksaibeh	Director, Environment Dept.	Ministry of Industry
Dr. Mahmoud Al-Harfah	Director, Studies and Environment Dept.	Ministry of Transport
Mr. Ali Al Khalid	Reporter	Syrian TV

Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Ms. Marah Morad	Program officer, Health and Environment Sector	JICA Syria Office
Dr. Basher Ibrahim	Economical Section	JICA Syria Office
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Mr. Ryunan Matsue	Member	JICA Expert Team
Mr. Mohammed Al Doubosh	Interpreter	JICA Expert Team
Ms. Nada Kat	Interpreter	JICA Expert Team

experiences of C/Ps in DFEAs, and this Project is prepared for C/Ps who do not have enough skills and knowledge about environmental monitoring. Mr. Yoichi Iwai also commented that this is a reason why substantial support from SERC would be required for further development of the capability of DFEAs on environmental monitoring.

5. Director of the Department of Water Pollution Control, Ministry of Irrigation, Eng. Atef Deeb, suggested that collaborative activities between MOI and MOLAE should be promoted such as water quality data sharing and co-implementation of water quality monitoring, and WRIC could have a roll for such kind of collaboration. In addition, Mr. Mori, the Team Leader of the WRIC Project, commented that WRIC should be a core of water quality data and monitoring in Syria. The JICA Expert Team, Mr. Yoichi Iwai, commented that this collaboration among concerned agencies is welcome, but it should be noted that MOLAE also needs its core for environmental monitoring because each ministry and agency has different objective.

6. General Director of the Science and Environmental Research Center (SERC), Dr. Mahmoud Saleh Seieiman, suggested that it would be useful to prepare a water use potential map of Syria based on sharing water quality monitoring data and water use information based on mutual cooperation among concerned ministries.

7. After the series of discussions, the Minister of MOLAE, Eng. Helal Al-Atrash addressed thanking remarks on fruitful discussions to the S/C members and rapped up the 4th S/C.

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

Agenda for the 4th Steering Committee

1. Date:

- March. 5 (Sun), 20:00-21:30; at the meeting room in MOLAE

2. Agenda

- |   |             |
|---|-------------|
| 1. Opening Statement<br>(by the Minister of MOLAE)  | 20:00-20:05 |
| 2. Remarks<br>(by the Resident Representative of JICA Syria Office)   | 20:05-20:10 |
| 3. Presentation: Progress Report (2) of the Project<br>(by the JICA Expert Team)<br>1) Progress of the Project<br>2) Next Plan of the Project | 20:10-20:40 |
| 4. Question and Answer  | 20:40-21:20 |
| 5. Closing Remarks<br>(by the Minister of MOLAE)  | 21:20-21:30 |

End

**Minutes of Meeting**  
**on**  
**The 5th Steering Committee**  
**for**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**for**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 23 August 2006

\_\_\_\_\_  
Dr. Akram S. Al-Khoury  
General Director  
General Commission for Environmental  
Affairs

\_\_\_\_\_  
Mr. Yūichi Iwata  
Team Leader  
The Expert Team  
Japan International Cooperation Agency

Witnessed by

\_\_\_\_\_  
Eng. Helal Al-Atrash  
Minister,  
Ministry of Local  
Administration and  
Environment

\_\_\_\_\_  
Mr. Kazuhide NAGASA WA  
Resident Representative  
JICA Syria Office  
Japan International Cooperation Agency

In accordance with the Record of Discussion signed on the September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 5th Steering Committee (S/C) was held on 23 August 2006. The 5th S/C was started by an opening statement by the Minister of the Ministry of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash. Under the chairmanship by the Minister, the General Director of GCEA, Dr. Akram S. Al Khouiri and the Resident Representative of the JICA Syria Office, Mr. Kazuhide Nagasawa, introduced the current situation of the Project.

An attendant list and agenda of the 5th S/C meeting 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.
- b) Component-2:
  - 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. At present, only nine DFEAs have been ready for connected.
- d) Component-4:
  - The current environmental monitoring plan of each DFEA should be revised based on local targets (pollution sources) and results of previous monitoring data,
  - 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 inspection and enforcement to polluters by GCEA and DFEAs,
  - The environmental monitoring should correspond to the legal system in Syria such as discharge/ effluent regulation, and

(w)

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-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,

-It is necessary to coordinate the Project with environmental education activities conducted by the Japan Overseas Cooperation Volunteers (JOCV), and

-Public awareness activities should be focused on polluters in industrial sector for effective use of monitoring data towards enforcement and compliance of laws and regulations.

f) Conclusions:

-Labs have been established in all DFEAs,

-Analytical techniques have been almost acquired by lab staff of DFEAs,

-Trainings of chemical and biological water quality analysis, air quality analysis, and monitoring data interpretation and planning are on-going,

-Public awareness activities of the Project should be focused on industry sector and should be intensified using monitoring data, and

-Communication among GCEA, DFEAs, and the JICA Expert Team should be improved.

Then, the Team Leader of JICA Expert Team presented a current progress based on the Progress Report (3) (Pr/R-3) to the S/C members. The S/C generally agreed the contents of Pr/R-3 submitted by the JICA Expert Team.

The followings are the issues discussed and agreed upon in the meeting.

1. General Director of the Science and Environmental Research Center (SERC), Dr. Mahimoud Saleh Seleiman, questioned about 1) details of monitoring data on water and air quality, and 2) contribution degree on air pollution by sector in Japan. The Team Leader of JICA Mid-term Evaluation Team, Dr. Mitsuo Yoshida, replied that it is a case of dairy factory in Damascus Countryside which shows almost 2,000 times over than the discharge standard in COD and BOD values. Dr. Mitsuo Yoshida also answered that normally its contribution differs parameter by parameter in Japan, for example concentration of SO<sub>2</sub> caused by industrial sector has been rapidly decreased but of NO<sub>x</sub> has been rather stable because of increasing mobile pollution sources (vehicles).







2. Minister of MOLAE, Eng. Helal Al-Atrash, expressed great thanks to the Government of Japan and JICA for technical cooperation of the Project, and commented the following points;

- a) Results of the mid-term evaluation indicate that the Project is on a right orbit at present and continuous efforts should be made by the Syrian side in cooperation with the JICA Expert Team.
- b) Around four days before, MOLAE held a meeting with members of the Chamber of Industry in Damascus and Damascus Countryside and discussed application of administration enforcement to enterprises and factories which violate laws and regulations based on actual monitoring data obtained by the Damascus and Damascus Countryside DFEAs.
- c) The Damascus governorate has decided to replace factories to an industrial zone in Adra, and invested around US\$ 5 million for construction of a central treatment facility.
- d) In Aleppo, twenty factories including public sector have been closed due to violation of discharge/effluent standards.
- e) As mentioned above, the Government of Syria committed to tackle pollution control and to protect environment. Thus, the capacity development of labs both in national and local levels is indispensable, and it should be accelerated taking broad means and tools for more effective and efficient enforcement of Law No. 50 in Syria.
- f) The Government of Syria still has a lot of things to execute for protection and management of environment. In this context, considering very high importance of the capacity development of administrative enforcement on environmental protection, this kind of Project activities should be continued and more strengthened in order to cope with various kinds of pollution issues.
- g) As the Minister of MOLAE, it is concluded that very much successful results of the Project are looked forward to solving pollution problems and achieving better environment for the citizens of Syria.

3. Minister of MOLAE, Eng. Helal Al-Atrash, ordered Mr. Saleh Isa, Chief of Accounting in MOLAE, to provide all required budget for the Project including fuel expense for sampling and so on.

4. The General Director of GCEA, Dr. Akram S. Al Khouri, proposed to the Minister of MOLAE to give incentives for the lab staff of DFEAs by applying similar employment conditions as labs in other ministries and institutes in accordance with







the laws and regulations of Syria.

5. After the series of discussions, the General Director of GCEA, Dr. Akram S. Al Khouri, addressed thanking remarks on fruitful discussions to the SI/C members and wrapped up the 5th SI/C.

## ANNEX-1

### List of Attendants

#### Syrian Side

Name	Position	Organization
Eng. Helal Al-Atrash	Minister	MOLAE
Dr. Akram S. Alkouri	General Director	GCEA
Prof. Dr. Mahmoud Saleh Seieinan	General Director	Environmental Studies Center (ESC)
Eng. Atef Deeb	Director of water pollution directorate	Ministry of Irrigation
Eng. Wadiah Jeha Khouri	Deputy Director of Damascus DFEA	Damascus Governorate
Mr. Saleh Isa	Chief of Accounting	MOLAE
Ms. Rola Isa	Reporter	Thawra Newspaper
Ms. Nazira Assa'd	Reporter	Tishreen Newspaper
Mohammed Omar Omar	Reporter	Syrian Arab News Agency
Abdulkarim Sna'd	Reporter	Al-Baath Newspaper

#### Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Mr. Satoshi Baba	Second Secretary	Embassy of Japan
Mr. Ghassan Habbal	Economical Section	Embassy of Japan
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Dr. Bechar Ibrahim	Advisor for Health and Environment Sector	JICA Syria Office
Dr. Mitsuo Yoshida	Team Leader	Mid-term Evaluation, JICA
Ms. Eiko Kojima	Member	Mid-term Evaluation, JICA
Mr. Akitsoshi Ito	Member	Mid-term Evaluation, JICA
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Ms. Nada Kat	Interpreter	Mid term evaluation, JICA
Eng. Mohammed Aidoubosh	Interpreter	JICA Expert Team

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

**Agenda for the 5th Steering Committee**

**1. Date:**

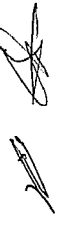
- August 23 (Wed), 11:00-13:00: at the meeting room in MOLAE

**2. Agenda**

- |  |                    |
|--|--------------------|
| <b>1. Opening Statement<br/>(by the Minister of MOLAE)</b>                                     | <b>11:00-11:05</b> |
| <b>2. Remarks<br/>(by the Resident Representative of the JICA Syria Office)</b>                | <b>11:05-11:10</b> |
| <b>3. Presentation: Results of the Mid-term Evaluation<br/>(by the Joint Evaluation Group)</b> | <b>11:10-11:45</b> |
| <b>4. Presentation: Progress Report (3) of the Project<br/>(by the JICA Expert Team)</b>       | <b>11:45-12:00</b> |
| <b>5. Question and Answer</b>  | <b>12:00-12:50</b> |
| <b>6. Closing Remarks<br/>(by the Minister of MOLAE)</b>                                       | <b>12:50-13:00</b> |

*End*


*for*



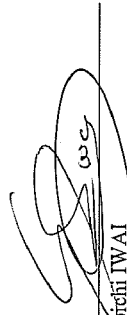
**Minutes of Meeting**  
**on**  
**The 6th Steering Committee**  
**for**  
**The Capacity Development of Environmental Monitoring at Directorates**  
**for**  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 25 February 2007

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




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

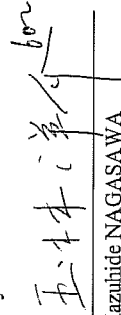


Witnessed by

Eng. Helal Al-Atrash  
 Minister,  
 Ministry of Local  
 Administration and  
 Environment



Mr. Kazuhide NAGASAWA  
 Resident Representative  
 JICA Syria Office  
 Japan International Cooperation Agency



In accordance with the Record of Discussion signed on September 9, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 6th Steering Committee (S/C) was held on 25 February 2007. The 6th S/C was started by an opening statement by the Minister of the Ministry of Local Administration and Environment (MOLAE), Eng. Helal Al-Atrash, referring a general status of the Project. Under the chairmanship by the Minister, the Resident Representative of the JICA Syria Office, Mr. Kazuhide Nagasawa, stated opening remarks mentioning about the 5th S/C held in August 2006, presentations of Aleppo and Tartous DFEAs, and close cooperation with MOLAE in other projects such as solid waste management project and urban planning study.

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

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

(a) Aleppo DFEA (presented by Director, Mr. Saeid Naïfous)

- Among 24 staff, only 6 staff are engaging in the monitoring activities with part-time job due to shortage of the staff number of DFEA,
- Monitoring samples are 76 in total including 16 stations 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 has a contact with ACI for seminar and workshop,
- DFEA is sometimes requested to cope with complaints of citizens from the Environmental Committee of the Governorate,
- DFEA is preparing a data sheet to send it GCEA, and
- Difficulties are shortage of the staff, less incentive to the staff, and not enough training period for air quality analysis.

(b) Tartous DFEA (presented by Director, Mr. Hasan Marjan)

- River pollution by wastewater from olive oil factories is the most serious problem,
- DFEA has sampled around 55 water samples in 2006 including dealing with complaints from citizens,

- 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, the Team Leader of JICA Expert Team presented a current progress based on the Progress Report (4) (Pr/R-4) to the S/C members. After that, the General Director of GCEA, Dr. Akram S. Al Khouri, briefly explained a summary of project evaluation activities in 2006 conducted by GCEA and DFEAs in the course of the Project.

The followings are the issues discussed and agreed upon in the meeting.

1. The Minister of MOLAE, Eng. Helal Al-Atrash, expressed great thanks to the presentations by Aleppo and Tartous DFEAs, and commented the following points;
  - a) MOLAE has conducting administrative activities such as monitoring and inspection in accordance with a strategy and mandate stated in the laws and regulations. In order to cope with environmental issues appropriately, it is crucial to grip an actual situation of the environment. Thus, all DFEA are requested to report such data and information both to GCEA and to the Governor office.
  - b) MOLAE will have a meeting of the Supreme Council for Environmental Protection on 28 February 2007 and its result is to be reported to the President. MOLAE is ready for taking action for environmental protection using various kinds of opportunities. Therefore, as the Minister of MOLAE, GCEA and DFEAs are requested to continue actual and active administrative enforcement for environmental protection keeping close cooperation with the JICA Expert Team.
  - c) As for the staffing and their incentive, it should be dealt with based on real needs of each DFEA. MOLAE will solve such matters including budget shortage by issuing special degree as the name of the Minister, when MOLAE receives actual requests through GCEA.
  - d) According to the presentation of the JICA Expert Team, currently 30% of counterparts (C/Ps) are in Grade-A level and 50% in Grade-B level. Such numerical objectives are to be fully achieved in the Project. MOLAE will confer a certification to the distinguished C/P as the name of the Minister in addition to giving incentives such as salary increasing.
  - e) It is considered important to improve networking system between GCEA and DFEAs, so MOLAE will support this matter through discussion with the Syrian Telecommunication Enterprise (STE).

- f) MOLAE agrees that it is crucial to achieve project sustainability for expecting continuous and more effective outcomes through the Project. Such evaluation will be conducted by the terminal evaluation mission team in coming July 2007, and MOLAE will carefully watch its results.

2. The Resident Representative of the JICA Syria Office, Mr. Kazuhide Nagasawa, commented that the Project itself is in a right orbit at present, but GCEA and JICA should carefully watch and monitor the final outcome until its terminal period. Mr. Kazuhide Nagasawa also mentioned the importance to achieve the first goal set by this Project before prospecting a successive phase.
3. The Director of Water Pollution Directorate in the Ministry of Irrigation (MOI), Dr. Atef Deib, commented to avoid duplication of mandates between MOLAE and MOI for environmental protection of public water bodies. Dr. Atef Deib suggested for consideration of another network system instead of STE. Minister of MOLAE, Eng. Helal Al-Atrash, and the General Director of GCEA, Dr. Akram S. Al Khouri, replied that the mandate of MOLAE in environmental monitoring is mostly focused on pollution source control, and it requires for close collaboration each other such as information sharing and co-monitoring for more efficient protection of natural water resources, not for concurrence of each mandate.
4. After the series of discussions, the Minister of MOLAE, Eng. Helal Al-Atrash, addressed thanking remarks on fruitful discussions to the S/C members and wrapped up the 6th S/C.



List of AttendantsSyrian Side

Name	Position	Organization
Eng. Helal Al-Atrash	Minister	MOLAE
Dr. Bisher Alasaban	Governor	Damascus Governorate.
Dr. Akram S. Alkouri	General Director	GCEA
Mr. Saeid Naifous	Director	Aleppo DFEA
Mr. Hसन Marjan	Director	Tartous DFEA
Dr. Atef Deib	Director of Water Pollution Directorate	Ministry of Irrigation
Dr. Mahmoud Saleh Seleiman	General Director	Environmental Studies Center (ESC)
Dr. Mahmoud Alhaftar	Director of Research and Study	Ministry of Transportation
Dr. Adnan Moustafa Ba'ayoun	Representative of Environmental and Chronic Diseases Directorate	Ministry of Health
Mr. Abdulkarim Saad	Reporter	Al-Baath Newspaper
Ms. Rola Isa	Reporter	Al-Hawra Newspaper

Japanese Side

Name	Position	Organization
Mr. Kazuhide Nagasawa	Resident Representative	JICA Syria Office
Mr. Satoshi Baba	Second Secretary	Embassy of Japan
Mr. Ghassan Habbal	Economical Section	Embassy of Japan
Ms. Yumiko Honda	Project Formulation Advisor	JICA Syria Office
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Mr. Keiichi Takahashi	Member	JICA Expert Team
Mr. Mohammed Aldoubosh	Interpreter	JICA Expert Team
Mr. Ahmed Almohamad	Interpreter	JICA Expert Team

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

Agenda for the 6th Steering Committee**1. Date:**

- February 25 (Sun), 11:10-12:30: at the meeting room in MOLAE

**2. Agenda**

**1. Opening Statement**  
(by the Minister of MOLAE) 11:10-11:15

**2. Remarks**  
(by the Resident Representative of the JICA Syria Office) 11:15-11:20

**3. Presentation: Results of the Monitoring Activities**  
(Tartous and Aleppo DFEAs) 11:20-12:00

**4. Presentation: Progress Report (4) of the Project**  
(by the JICA Expert Team) 12:00-12:15

**5. Presentation: Results of the Project Evaluation**  
(by the General Director of GCEA) 12:15-12:20

**6. Discussion** 12:20-12:30

**7. Closing Remarks**  
(by the Minister of MOLAE) 12:30-

*End*

Attendants List for the 6<sup>th</sup> Steering Committee

Date: February 25<sup>th</sup>, 2007 (Sunday)

No.	Name	Authority and Job Description
1	د. عدنان بطرف بن جيون	وزارة الصحة - مديرية الامن البيئي والصحة
2	Atef Peib	Ministry of Irrigation
3	MAHMOUD SALHA	مدير ادارة استاتاليت
4	Dr. Mahmoed ALHaffaf	وزارة النقل - وزارة الميناء
5	عبدالله	جمعية لبيت
6	محمد مصطفى	مدير بيئية /
7	لولا عيسى	جمعية التوعية
8	محمد عيسى	مدير بيئية /
9	د. ابي فهد	مدير بيئية لبيت
10	الاسيد لينا	مدير بيئية لبيت
11	د. محمد الطيف	مدير بيئية لبيت
12	K. NAKA-SAWA	JMP.
13	Setoshi BABA	Embassy of Japan
14	STASISUWA WABBAL	Embassy of Japan - Economic Section
15	Yumiko HONDA	JICA
16	Hasan Lonjan	مدير بيئية لبيت
17		
18		
19		
20		
21		
22		
23		

**Minutes of Meeting**  
on  
**The 7th Steering Committee**  
for  
**The Capacity Development of Environmental Monitoring at Directorates**  
for  
**Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 9 August 2007


In accordance with the Record of Discussion signed on September 9<sup>th</sup>, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 7th Steering Committee (St/C) was held on 9<sup>th</sup> August 2007. The 7th St/C was held under the chairmanship of the General Director of GCEA. The meeting started with an opening statement of the General Director of GCEA, Dr. Akram S. Al Khouri, and another statement of the Resident Representative of the JICA Syria Office, Ms. Akiko Tomita, expressed thanking remarks referring to the current situation of the Project.


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

At first, the Team Leader of JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, presented the results of the Terminal Evaluation of the Project submitting the Minutes of Meeting of the Joint Evaluation Team signed on 8<sup>th</sup> August, 2007 (ANNEX-3). Key results presented are as follows;


a) Summary of Evaluation

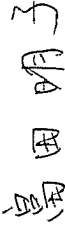
- 1) Relevance: The Overall Goal and the Project Purpose are still considered relevant with the needs of Syria and target groups.
- 2) Effectiveness: So far, most of the Objectively Verifiable Indicators of the Project Purpose have been mostly achieved except for publication of monitoring data.
- 3) Efficiency: Although one of the important assumptions ("Trained Lab staff stay in lab and keep working on the monitoring") and two out of three Pre-Conditions ("Appropriate number of lab staff with chemical background", and "Adequate wastewater treatment plants shall be prepared") had not been satisfied prior to the commencement of the Project, it is expected that all of the Outputs would be fully or mostly achieved by the end of the Project. The Project is considered to have been mostly efficient.
- 4) Impacts: It is likely that the Overall Goal would be mostly achieved in 3-5 years after the termination of the Project.
- 5) Sustainability:
  - (i) The legal and policy support for monitoring is likely to continue.
  - (ii) Labs of DFEAs have not been authorized yet, which is a major obstacle to use and publish the monitoring data.
  - (iii) GCEA has a plan to increase the number of lab staff. It is uncertain if all current CP would stay in DFEAs unless some measures are taken.
  - (iv) The financial sustainability is likely to be secured.

  
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

  
Eng. Hejal Al-Atrash  
Minister,  
Ministry of Local Administration and  
Environment

  
Ms. Akiko TOMITA  
Resident Representative  
JICA Syria Office  
Japan International Cooperation Agency

- (v) Sampling and analysis technical level is expected to be developed enough, though further improvement of QA/QC is necessary. At least one staff in each lab should be able to analyze, evaluate the data, and to determine parameters on his/her own for each relevant analytical field.
  - (vi) The equipment provided by the Project is expected to be used and maintained properly.
- b) Conclusion
- 1) So far, the Project Purpose has been mostly accomplished.
  - 2) The data acquired by the monitoring activities has been accumulated to publish official reports in the future.
  - 3) The sustainability of DFEA labs has been strengthened by the efforts of both sides in the aspects of human resources, budget allocation, legal and institutional framework through the implementation of the Project.
  - 4) It can be concluded that the original target of the Project is expected to be mostly accomplished and then the Project shall be terminated in January 14, 2008 as planned in the R/D.

Then, the Team Leader of JICA Expert Team, Mr. Yoichi Iwai, presented key issues of the Project to be described in the Progress Report (5) (Pr/R-5) based on the evaluation results and recommendations prepared by the Joint Evaluation Team.

The followings are the issues discussed and agreed upon in the meeting;

1. The Director of the Environmental and Chronic Diseases in the Ministry of Health, Dr. Mahmoud Kraim, questioned a legal base of environmental monitoring of MOLAE, and how to cope with improvement of qualification and accreditation of labs in DFEA. The General Director of GCEA, Dr. Akram S. Al Khouri, answered that Law No. 50 is the legal base, and labs in DFEA have applied a quality control program of the Atomic Energy Commission (AEC) to obtain an accreditation. The Team Leader of JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, additionally explained that the reliability of monitoring data should be improved step by step through daily quality control activities, so it will require more time period. Mr. Kenichi Tanaka also suggested a possibility to apply the ISO 17025.
2. The General Director of the Center for Environmental Studies (ESC), Dr. Mahmoud Saleh Seleiman, commented that GCEA should put high priority on air quality monitoring especially for mobile pollution sources, not on water quality. The General Director of GCEA, Dr. Akram S. Al Khouri, replied that GCEA has also tackled against air pollution not only water pollution.



The Deputy Minister of MOLAE, Eng. Inad Hassoun, commented that the National Environmental Action Plan defined the water quality as the first priority, and the strategy should be decided by the Supreme Council for Environmental Protection.

3. The Director of Studies and Environmental Affairs in the Ministry of Transportation, Dr. Mahmoud Alhaftar, also stressed the importance of air quality monitoring and air pollution control. The Team Leader of JICA Terminal Evaluation Mission, Mr. Kenichi Tanaka, replied that the air quality monitoring is one of components of the Project and the accumulation of basic air quality monitoring data is essential to take actual countermeasures against air pollution. In addition, the Team Leader of JICA Expert Team, Mr. Yoichi Iwai, commented that a control of fix air pollution source should be prioritized than mobile one as the first step considering the current environmental management and monitoring level.
4. The Manager of Environmental Affairs in the Ministry of Industry, informed that the Ministry of Industry has established a special lab as a research center for industrial pollution control, and suggested further collaboration with MOLAE on lab analysis in future.
5. The Manager of Water Monitoring in the Ministry of Irrigation, informed that the Ministry of Irrigation has provided water quality monitoring data to MOLAE and such cooperation should be continued further. The Team Leader of JICA Expert Team, Mr. Yoichi Iwai, suggested that the cooperation itself is welcome for MOLAE but it should be integrated by recognizing different functions on water quality monitoring in MOLAE (targeting the pollution sources) and the Ministry of Irrigation (to public water bodies).
6. After the series of discussions, the General Director of GCEA, Dr. Akram S. Al Khouri, and the Resident Representative of the JICA Syria Office, Ms. Akiko Tomita, addressed thanking remarks on fruitful discussions to the S/C members and wrapped up the 7th S/C.




List of AttendantsSyrian Side

Name	Position	Organization
Dr. Akram S. Alkouri	General Director	GCEA
Eng. Imad Hassoun	Deputy Minister	MOLAE
Mr. Hesham Taki	Deputy Governor	Damascus Governorate.
Dr. Mahmoud Saleh Soulliman	General Director	Center for Environmental Studies (ESC)
Dr. Mahmoud Kraim	Director of Environmental and Chronic Diseases	Ministry of Health
Dr. Mahmoud Alhafifar	Director of Studies and Environmental Affairs	Ministry of Transportation
Ms. Amal Hasan	Manager of Environmental Affairs	Ministry of Industry
Ms. Mayada Kodmani	Manager of Water Monitoring	Ministry of Irrigation

Japanese Side

Name	Position	Organization
Ms. Akiko Tomita	Resident Representative	JICA Syria Office
Ms. Mayumi Murakami	Assistant Resident Representative	JICA Syria Office
Mr. Nawras Khaled	Program Officer	JICA Syria Office
Mr. Kenichi Tanaka	Team Leader of Evaluation Mission	JICA
Ms. Reiko Shindo	Team Member of Evaluation Mission	JICA
Ms. Yasuyo Hirochi	Team Member of Evaluation Mission	IDeA Ltd.
Mr. Yoichi Iwai	Team Leader	JICA Expert Team
Mr. Shunsuke Sato	Member	JICA Expert Team
Mr. Kouji Kimura	Member	JICA Expert Team
Mr. Mohammed Al-doubosh	Interpreter	JICA Expert Team




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

Agenda for the 7th Steering Committee**1. Date:**

- August 9 (Thu), 11:00-13:00: at a meeting room in MOLAE

**2. Agenda**

- 1. Opening Statement**  
(by the General Director of GCEA) 11:00-
- 2. Remarks**  
(by the Resident Representative of the JICA Syria Office) 11:10-
- 3. Presentation: Results of the Terminal Evaluation**  
(by the Joint Evaluation Committee of the Project) 11:15-12:00
- 4. Presentation: Progress Report (5) of the Project**  
(by the JICA Expert Team) 12:00-12:20
- 5. Question and Answer** 12:20-13:00
- 6. Closing Remarks**  
(by the General Director of GCEA) 13:00-

*End*






MINUTES OF MEETING  
BETWEEN  
THE JAPANESE TERMINAL EVALUATION TEAM  
AND  
THE SYRIAN TERMINAL EVALUATION TEAM  
ON  
JAPANESE TECHNICAL COOPERATION  
FOR  
THE CAPACITY DEVELOPMENT OF ENVIRONMENTAL MONITORING  
AND  
DIRECTORATES FOR ENVIRONMENTAL AFFAIRS IN GOVERNORATES

The Japanese Terminal Evaluation Team (hereinafter referred to as "the Team"), organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. TANAKA Kenichi, visited the Syrian Arab Republic from July 22 to August 9, 2007, for the purpose of conducting the joint terminal evaluation on the Japanese technical cooperation for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates (hereinafter referred to as "the Project") on the basis of the Record of Discussions signed on September 9, 2004 (hereinafter referred to as "the R/D").

During its stay in the Syrian Arab Republic, the Team had a series of discussions and exchanged views with the Syrian Terminal Evaluation Team (hereinafter referred to as "the Syrian side") headed by Dr. Akram Sulaiman AL KHOURI.

As a result of the discussions, the joint evaluation team mutually agreed upon the matters referred to the document attached as ANNEX I.

  
Mr. TANAKA Kenichi  
Leader  
Japanese Terminal Evaluation Team  
Senior Advisor,  
Japan International Cooperation Agency

Damascus, August 8, 2007  
  
Dr. Akram Sulaiman AL KHOURI  
General Director  
General Commission for Environmental Affairs

ANNEX I      JOINT EVALUATION REPORT

REPORT OF THE JOINT TERMINAL EVALUATION  
ON

THE CAPACITY DEVELOPMENT OF ENVIRONMENTAL MONITORING AT  
DIRECTORATES FOR ENVIRONMENTAL AFFAIRS IN GOVERNORATES

1. Introduction

1.1 Objectives of the Evaluation

The evaluation activities were performed with the following objectives:

- (1) To verify the accomplishments of the Project compared to those planned;
- (2) To identify obstacles and/or facilitating factors that have affected the implementation process;
- (3) To analyze the Project in terms of the five evaluation criteria (i.e. Relevance, Effectiveness, Efficiency, Impact, and Sustainability); and
- (4) To make recommendations on the Project regarding the measures to be taken for the remaining period as well as for the post-project period.

1.2 Members of the Joint Evaluation Team

(1) The Syrian Team

Dr. Akram Sulaiman AL KHOURI	Team Leader	Director General of GCEA, MOLAE
Dr. Yasin MOALLA	Member	Director of Laboratories, GCEA, MOLAE
Dr. Nader GHAZI	Member	Director of Environmental Awareness, GCEA, MOLAE
Mrs. Manal ALSAKKA	Member	Director of EIA, GCEA, MOLAE
Mr. Shaka AL SOLEMAN	Member	IT Unit, GCEA, MOLAE
Ms. Reem SADER ALDEEN	Member	Laboratory Chief, Damascus DFEA, MOLAE
Mr. Ejiya WASEL	Member	Aleppo DFEA, MOLAE

\* MOLAE: Ministry of Local Administration and Environment

GCEA: General Commission for Environmental Affairs, MOLAE

DFEA: Directorate for Environmental Affairs, MOLAE

EIA: Environmental Impact Assessment

  
1  


(2) The Japanese Team

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

1.3 Schedule of the Evaluation Study

The Evaluation Study was conducted from July 22 to August 9, 2007. The Joint Evaluation Team (hereinafter referred to as the Team) collected the information through questionnaires and a series of interviews with Japanese experts and Syrian counterpart personnel (hereinafter referred to as "C/P") at the GCEA and the target DFEAs. The Team also conducted a field observation in DAM, DAMC, ALP, HOM, TAR, SWD and DAR. Based on the results, the Team prepared a draft report and finalized it through a series of discussions on August 7, 2007.

2. Outline of the Project

2.1 Background of the Project

Over the 20 years since the 1980's, the industrialization of Syria has demonstrated steady growth including thermal power plants, oil refineries, and cement plants. Fertilizer mills or small and medium scale metal and dye factories have spread into the suburbs of large cities. At the same time, environmental problems caused by sewage, exhaust and dust from factories have become visible.

In order to respond to these environmental problems, in 1991, the Syrian government passed the Basic Law of Environment (Decree No.11) and established the Ministry of Environmental. In 1996, this ministry set up the DFEAs in five governorates. The DFEAs have task for finding solutions to the environmental problems, which have spread throughout the country and have expanded its network year by year. The Ministry of Environment and the Ministry of Local Administration were integrated and the MOLAE was established in September 2003. In January 2004, the establishment of the DFEAs was ordered through a notification by the Minister of the MOLAE, and currently the DFEAs are established in all of the 14 governorates. The DFEAs are mainly responsible for the environmental administration and environmental monitoring in each region. Moreover, the Emission Standards to Industrial Wastewater and Exhaust Gas were promulgated in May 2002, and the



Environmental Protection Law (Law no.50, 2002), which stipulates punitive regulations, was brought into effect in July 2002.

In July 2002, the Syrian government requested technical cooperation to Japanese government to provide equipment for the DAM DFEA and environmental monitoring and analytical techniques for some DFEAs like DAM, ALP, HOM, LTK, HAM and TAR, etc. In response, the Japanese government dispatched a preparatory study team to investigate the specific nature of the request through January to April, 2004. As a result, it was decided to formulate and implement the technical cooperation project titled "Capacity Development of Environmental monitoring at Directorates for Environmental Affairs in Governorates" (hereinafter referred to as "the Project") and the Records of Discussion (RD) was signed on September 9, 2004.

The Project for three years was launched in the end of December 2004 and the Japanese Expert Team started preparation for the Project. In the following month, in the beginning of January 2005, the Japanese Expert Team started to work in Syria and the Inception Report was presented in the first Steering Committee meeting held in January 12, 2005, while Inception Report was generally agreed in the second Steering Committee meeting held in February 24, 2005.

2.2 Summary of the Project

According to the latest Project Design Matrix (PDM) (Annex 1), the Project Purpose is "The target Directorates for Environmental Affairs in Governorates are capable to introduce and conduct regular monitoring of required parameters for water and air quality according to the monitoring plan formulated by the Directorates themselves and to implement activities for public awareness including publication of the monitoring results". The Overall Goal of the Project is "Environmental monitoring system and publication of the monitoring results are introduced at and spread to all the Directorates". The Outputs are (1) "Technical level of laboratory staff concerning environmental sampling and analysis is improved"; (2) "Laboratories are properly managed and properly managed"; (3) "Environmental analysis data is accumulated and properly managed"; (4) "Laboratory staff is able to formulate an environmental monitoring plan specifying parameters required"; and (5) "The results and data acquired by the Project are open to and shared with the citizens of the target Directorates. Staff of target Directorates is able to formulate its action plan for public awareness and environmental education".



### 3. Methodology of Evaluation

#### 3.1 Data Collection Method and Analysis

##### 3.1.1 Data Collection Method

The Team made interviews with the Syrian C/P and the Japanese experts engaged in the Project. The Team also collected information through questionnaires from the concerned personnel.

##### 3.1.2 Items of Analyses

###### (1) Accomplishment of the Project

Accomplishment of the Project was measured in terms of the Inputs, the Outputs and the Project Purpose in comparison with the Objectively Verifiable Indicators of the PDM as well as the plan delineated in the R/D.

###### (2) Implementation Process

Implementation process of the Project was reviewed to see if the Activities have been implemented according to the schedule delineated in the PO (Annex 2), and to see if the Project has been managed properly as well as to identify obstacles and/or facilitating factors that have affected the implementation process.

###### (3) Evaluation based on the Five Evaluation Criteria

###### (a) Relevance

Relevance of the Project was reviewed to see the validity of the Project Purpose and the Overall Goal in connection with the needs of the beneficiaries and policies of Syria and Japan.

###### (b) Effectiveness

Effectiveness was analyzed by evaluating the extent to which the Project has achieved and contributed to the beneficiaries.

###### (c) Efficiency

Efficiency of the Project implementation was analyzed focusing on the relationship between the Outputs and Inputs in terms of timing, quality, and quantity.

###### (d) Impacts

Impacts of the Project were forecasted by referring to positive and negative impacts caused by the Project.

###### (e) Sustainability

Sustainability of the Project was forecasted in institutional, financial and technical aspects by examining the extent to which the achievement of the Project would be sustained and/or expanded after the Project is completed.



### 4. Summary of Accomplishment and Implementation Process of the Project

#### 4.1 Accomplishment of the Project (Details are described in Annex 3)

As for the Project Purpose, targets for most of the Objectively Verifiable Indicators have been mostly satisfied. With regard to achievement of analysis technology level, the DFEAs have mostly achieved the targeted level in the field of water quality analysis while they have partly achieved the targeted level in the field of Air Quality Analysis. Monitoring activities of water and air quality have been carried out basically on regular basis mostly according to the plan formulated by the DFEAs. Activities for public awareness have been implemented in four priorities the DFEAs (i.e. DAM, ALP, HOM, and LTK).

Each DFEA has prepared an annual report for 2006 and is preparing an annual report for 2007. The reports for all activities, however, have not been published yet.

Regarding the accomplishment of Outputs and Inputs, please see Annex 3.

#### 4.2 Implementation Process of the Project (Details are described in Annex 4)

Most of the Activities have been implemented as planned while some of the Activities under Output 1 have been delayed. It is expected, however, that the planned Activities will be covered before the termination of the Project through efforts of both Japanese Expert Team and their C/P. The Project has been monitored periodically through internal weekly meetings between the GCEA officials and the Japanese Expert Team as well as 6 Steering Committee and 15 Technical Committee meetings.

Some of the issues are highlighted below:

1. In response to a request made by the Syrian side, additional training in the field of Chemical and Biological Analysis (i.e. Chemical and Biological Analysis (II)) has been implemented at 3 DFEAs (i.e. DAMC, HOM, and ALP), to which the GCEA has provided spectrophotometers and oil content meters. In response to another request made by the Syrian side, in the field of Heavy Metal Analysis, lecture training of basic analysis was carried out at 8 DFEAs (i.e. DAMC, ALP, HAM, LTK, DZR, IDL, HSK, and DAR), to which the GCEA has provided or has a plan to provide Atomic Absorption Spectrophotometer (AAS).
2. In the case of Basic Water Quality Analysis, Heavy Metal Analysis, and Air Quality Analysis, procurement procedures, delivery, and/or installment of the major equipment were delayed, which resulted in an overall delay of the related training activities. Though all the envisaged training items are expected to be covered by the end of the Project, there would not be sufficient time for the C/P to accumulate practical experiences of sampling and analysis for regular monitoring through on-the-job training





who have chemical background are assigned in the target DFEAs in governorates” and “Adequate waste water treatment plants shall be prepared before starting laboratory chemical analysis training in the target DFEA in governorates”) had not been satisfied prior to the commencement of the Project. Only one waste water treatment plant in DAM DFEA has been installed, because of the small quantity of waste water from the other DFEAs. However it has not worked because of technical conditions. Therefore, those two Pre-Conditions have not been fully satisfied, either.

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

**5.4 Impacts** (Details are described in Section 4 of Annex 5)  
Impacts at the Overall Goal level: It is likely that the Overall Goal would be mostly achieved in 3-5years after the termination of the Project.

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

**5.5 Sustainability** (Details are described in Section 5 of Annex 5)  
Institutional and organizational aspects: The legal and policy support for environmental monitoring likely to continue. Environmental monitoring is one of the important organizational tasks of the DFEAs so that it will continue after the end of the Project. In the meantime, the laboratories of the DFEAs have not been authorized yet, which is a major obstacle for the DFEAs to utilize the monitoring data for controlling, enforcing, and punishing the polluters. While GCEA has a plan to increase the number of lab staff further, it is uncertain if all of the current C/P would stay with the DFEAs unless some measures are taken.

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

Technical aspects: In terms of sampling and analysis, technical level of most of the C/Ps is expected to be developed enough to continue the relevant activities by themselves, through further improvement regarding Quality Assurance/Quality Control (QA/QC) is necessary. As for the rest of them, those who have and will have reached such a level are expected to transfer the acquired techniques and knowledge to them through OJT, utilizing Standard Operation Procedures (SOP), manuals, teaching materials developed by the Project. In

(OJT).

3. Communication among the GCEA and the DFEAs has been enhanced through a series of meetings of Technical Committee, which consist of Directors of the DFEA and GCEA officials. Communication between the Japanese Expert Team and the GCEA officials has improved since weekly meeting started in June 2006. It needs further improvement for smooth implementation of the Project.

## 5. Summary of Evaluation based on the Five Evaluation Criteria

### 5.1 Relevance

(Details are described in Section 1 of Annex 5)

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

### 5.2 Effectiveness

(Details are described in Section 2 of Annex 5)

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

### 5.3 Efficiency

(Details are described in Section 3 of Annex 5)

In general, the Inputs from the both sides have been moderately appropriate in terms of timing, quality and quantity. One of the important assumptions (“Laboratory staffs trained by the Project stay in laboratories and keep working on the environmental monitoring”) has not been satisfied. Two out of three Pre-Conditions (“Appropriate number of laboratory staff

terms of interpretation and evaluation of the analyzed data, it is necessary for a lab to have at least one person who is able to analyze, evaluate the data, and to determine parameters by his/her own for each relevant analytical field. The equipment provided by the Project is expected to be utilized and maintained properly.

## 6. Conclusion

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

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

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

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

## 7. Recommendations

### 7.1 For the Remaining Period

- (1) It requires continuous efforts to have staff with adequate background and to keep them not to change the job though the GCEA has attempted to address the issue.
- (2) Five DFEAs (i.e. DAM, DAMC, HOM, LTK, and SWD) have already applied, and nine DFEAs are trying to apply the "Program for Quality Control of Laboratory Analysis". The GCEA is needed to promote renewal of the accreditation every three-months. It is needed to enhance the QA/QC and the capacity of interpretation and evaluation of analysis.
- (3) Hazardous/Toxic waste water treatment plant has been established in the DAM DFEA; however, it is necessary to repair it for normal operation as soon as possible.

### 7.2 For the Post-Project Period

<Short Term Recommendations>

#### (1) Planning for training of Air Quality Analysis

Only three DFEAs (i.e. DAM, HOM, and ALP) have air quality monitoring training, but still need additional training.

Planning for the technical training of Air quality Analysis is necessary for the rest of DFEAs to reach to the Overall Goal of the Project.

#### (2) Continuous contact with JICA

After the Project, continuous contact with JICA Syria Office is recommended to inform the latest condition of the DFEA labs and to request support when necessity arises.

#### (3) Beforehand application for the budget

Budget plan for operational expenses of the labs has been already submitted to the MOLAE and the State Planning Commission (SPC). Smooth and timely disbursement of the applied budget is necessary.

#### (4) The condition needed for the technical capacity development

The C/Ps have acquired basic knowledge and skills for the water quality and air quality monitoring and now they are capable to handle the routine work. However, the enhancement of the precision of the water quality and air monitoring methodology will be needed for more effective achievement of the DFEA labs, mission defined within the related legal framework. To conduct the future activities smoothly, the following matters are recommended.

- (a) Continuous disbursement of sufficient budget for the operation of the DFEA labs.
- (b) More incentives for the staffs who work in the labs.
- (c) Adequate technicians, who will be engaged especially in the activities on analysis in the labs, based on operational plan to be established with verifiable indicators.
- (d) Continuous and appropriate preventive maintenance of the equipments and machineries in the labs.

< Mid and Long Term Recommendations >

#### (1) Job descriptions

The role of the GCEA and the DFEA labs has various aspects, e.g. supervision of the

industries, provision of technical advice to the organizations related with the water quality and air quality control, etc. It is relevant for the lab staff to take action related with those aspects. However, in the aspect of the technical capacity development of the lab, it is essential to **secure and increase the appropriate permanent staffs**, who work especially for the analysis in the lab and data management. In this sense, the division of the duties in the lab under the integrated institutional framework will be needed in the near future.

The important role of the GCEA is to manage all of the DFEAs, to coordinate all project activities, and to provide technical supports.

#### (2) Environmental Policy

The GCEA has prepared the National Monitoring Plan and is going to utilize monitoring results for the implementations of the environmental policies such as public awareness, Environment Impact Assessment (EIA) system, and environmental inspection. It is needed to have appropriate procedures on how to reflect the monitoring activities in the environmental administration at the national and local levels.

#### (3) Accreditation of AEC

Since the DFEA labs are aiming to be reference laboratories on environmental field in Syria, it is essential to obtain the accreditation of AEC (and the ISO 17025) in the future. Then the labs are expected to proceed the next step for the preparation toward the accreditation. Therefore, it is recommended for JICA to provide appropriate advice when the GCEA and the DFEAs request for it.

### 8. Lessons Learned

- (1) It is important to promote synergy among the related programs in the same field e.g. Mediterranean Environmental Technical Assistance Program (METAP), GTZ's training course on EIA etc. in order to promote greater impact and to ensure sustainability after the project ends.
- (2) Organizational structure of the project as well as internal and mutual communication and understanding is the key issue for efficient and effective implementation of the project.

### List of Attachment

Annex 1	The latest PDM (ver. 1)
Annex 2	The latest PO (ver. 0)
Annex 3	Accomplishment of the Project
Annex 4	Implementation Process of the Project
Annex 5	Evaluation based on the Five Evaluation Criteria
Appendix A	Record of Syrian Inputs
A-1	List of C/P
Appendix B	Record of Japanese Inputs
B-1	List of Japanese Experts
B-2	List of Major Equipment
Appendix C	Detailed Tables for some of the Objectively Verifiable Indicators of the Outputs
Appendix D	Detailed Tables for some of the Objectively Verifiable Indicators of the Project Purpose
Appendix E	Activity Chart
Appendix F	List of Abbreviation

**Minutes of Meeting  
on  
The 8th Steering Committee  
for  
The Capacity Development of Environmental Monitoring at Directorates  
for  
Environmental Affairs in Governorates in the Syrian Arab Republic**

Damascus, 9 December 2007

In accordance with the Record of Discussion signed on 9 September, 2004, between the Syrian authorities concerned and Resident Representative of the JICA Syria Office for the Capacity Development of Environmental Monitoring at Directorates for Environmental Affairs in Governorates in the Syrian Arab Republic (the Project), the 8th Steering Committee (S/C) was held on 9 December 2007 in parallel with the Final Seminar in Damascus. The 8th S/C was started by an opening statement by the General Director of GCEA, Dr. Akram S. Al Khouri. At first, the Resident Representative of the JICA Syria Office, Ms. Akiko Tomita, stated opening remarks mentioning about the importance of sustainability and reliability of the monitoring activities in accordance with the 10<sup>th</sup> 5-years plan. Then, the Governor of Damascus Governorate, Dr. Bisher Alsaban, also stated opening remarks emphasizing further continuation of environmental monitoring and management activities based on the achievement results of the Project.


An attendant list and agenda of the 8th S/C meeting and the Final Seminar in Damascus are attached per ANNEX-1 and ANNEX-2, respectively.


Under the chairmanship by the General Director, the representatives of Dara'a, Sweida, Quneitra, Damascus Countryside, and Damascus DFEAs presented their overall results of the Project and future plan of the environmental monitoring activities. The General Director of GCEA, Dr. Akram S. Al Khouri, and the Chief Advisor of the JICA Expert Team, Mr. Yoichi Iwai, appreciated their great efforts and well prepared presentations, and commented several key issues on the Project sustainability.


After these presentations and related discussions, Dr. Akram S. Al Khouri concluded that all DFEAs have achieved an actual base of environmental monitoring through this Project, and the next step should be started based on this achievement by their self-reliance efforts. Also, Dr. Akram S. Al Khouri expressed strong commitment on continuation and sustainability of the monitoring activities after termination of the Project; ensuring enough number of qualified staff and required budget in the Syrian Fiscal Year of 2008, and informing continuation results of monitoring activity to JICA. Ms. Akiko Tomita replied that JICA will confirm the Project sustainability based on the continuation results prepared by GCEA.

Also, Dr. Akram S. Al Khouri requested the JICA Office for further technical assistance of the Phase-II of the Project. Ms. Akiko Tomita replied that the Government of Japan will consider this request based on the continuation results submitted by the Syrian side.

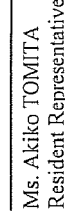
Finally, Ms. Akiko Tomita, stated the closing remarks of the 8th S/C meeting and the Final Seminar with special thanks for successful and fruitful achievement of the Project to all attendants and counterparts of the Project.

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

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

  
 Eng. Helal Al-Atrash  
 Minister,  
 Ministry of Local Administration and  
 Environment

Witnessed by

  
 Ms. Akiko TOMITA  
 Resident Representative  
 JICA Syria Office  
 Japan International Cooperation Agency



List of Attendants

Syrian Side

Name	Position	Organization
Dr. Bisher Alshaban	Governor	Damascus Governorate.
Dr. Akram S. Alkouri	General Director	GCEA
Dr. Yasin Moa'jia	Director of Directorate of Laboratories,	GCEA
Ms. Fatmie Mohammed	Directorate of Laboratories,	GCEA
Eng. Basel Barni	Directorate of Atmospheric Air Safety	GCEA
Mr. Bassam Kheir beik	Director	Damascus DFEA
Ms. Wadia'a Jeha Khouri	Deputy Director	Damascus DFEA
Ms. Riem Sadr Alden	Laboratory Chief	Damascus DFEA
Mr. Thaeer Daif	Director	Damascus Countryside DFEA
Ms. Munir Al Janna'a	Lab chief	Damascus Countryside DFEA
Dr. Motasem Al Abed	Director	Sweida DFEA
Mr. Ahmad Kabiawi	Director	Dara'a DFEA
Mr. Hamzeh Soliman	Director	Qunaitra DFEA
Ms. Mouhammad Fawaz Alshadi	Officer	Damascus Governorate

Japanese Side

Name	Position	Organization
Ms. Akiko Tomita	Resident Representative	JICA Syria Office
Mr. Nawras Khaled	Program officer	JICA Syria Office
Mr. Satoshi Baba	Second Secretary	Embassy of Japan
Mr. Ghassan Habbal	Economical Section	Embassy of Japan
Mr. Yoichi Iwai	Team Leader/Environmental Management	JICA Expert Team
Mr. Shunsuke Sato	Team Member	JICA Expert Team
Dr. Ryunan Matsue	Team Member	JICA Expert Team
Mr. Koji Kimura	Team Member	JICA Expert Team
Mr. Mohammed Al Doubosh	Interpreter	JICA Expert Team

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

**Agenda for the 8th St/C and the Final Seminar in Damascus**

1. Date: - December 9 (Sun), 10:00-14:00
2. Agenda
- Opening Session*
1. Opening Statement (General Director of GCEA) 10:00-10:10-10:20
  2. Opening Speech (JICA Syria Office) 10:20-10:30
  3. Opening Speech (Governor of Damascus Governorate) 10:20-10:30
- The 1st Session: Result of Basic Water Quality, Situation and Problems of the Regional Environment*
3. Dara'a DFEA 10:30-10:50
  4. Sweida DFEA 10:50-11:10
  5. Quneitra DFEA 11:10-11:30

*Coffee Break (11:30-12:00)*

*The 2nd Session: Monitoring Results of Pollution Sources*

6. Damascus Countryside DFEA (Chemical & Bio Analysis) 12:00-12:20
7. Damascus DFEA (Central Lab) 12:20-12:40
8. Damascus (Air Quality Monitoring) 12:40-13:00

*The 3rd Session: Future Plan of the Environmental Monitoring*

10. Project Sustainability and Prospect of Monitoring (by GCEA) 13:00-13:15

*The 4th Session: Discussion and General Summary of the Project*

11. Discussion and Q&A 13:10-13:40
12. Comment & Summary (by GCEA & JICA Expert Team) 13:40-14:00
13. Closing Remarks (General Director of GCEA) 14:00-

*End*