

MINUTES OF MEETING  
BETWEEN THE MINISTRY OF STATE FOR ENVIRONMENTAL AFFAIRS /  
EGYPTIAN ENVIRONMENTAL AFFAIRS AGENCY AND  
THE SECOND JAPANESE PREPARATORY STUDY TEAM  
ON TECHNICAL COOPERATION FOR  
REGIONAL ENVIRONMENTAL MANAGEMENT IMPROVEMENT  
IN THE ARAB REPUBLIC OF EGYPT

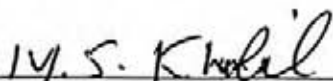
The Second Japanese Preparatory Study Team (hereinafter referred to as "the Team"), organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Hiromi Chihara, visited the Arab Republic of Egypt (hereinafter referred to as "Egypt") from 14 March to 24 March 2005, for the purpose of discussing with the Ministry of State for Environmental Affairs / Egyptian Environmental Affairs Agency (hereinafter referred to as "the Egyptian side") the formulation of the technical cooperation regarding Regional Environmental Management Improvement Project in Egypt (hereinafter referred to as "the Project").

During its stay in Egypt, the Team exchanged views and had a series of discussions with Egyptian Environmental Affairs Agency (hereinafter referred to as "EEAA") representatives with respect to desirable measures to be taken by both Governments for effective implementation of the Project.

As a result of the discussions and in accordance with the provisions of the Agreement on Technical Cooperation between the Government of the Arab Republic of Egypt and the Government of Japan signed on 15 June 1983 (hereinafter referred to as "the Agreement"), both the Egyptian side and the Team agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

The technical members of the Team will remain in Egypt to continue its study until 30 March 2005.

Cairo, 23 March 2005



Dr. Mohamed Sayed Khalil  
Chief Executive Officer  
The Egyptian Environmental Affairs Agency  
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The Arab Republic of Egypt



Mr. Hiromi Chihara  
Team Leader  
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Japan International Cooperation Agency  
Japan

## ATTACHED DOCUMENT

### Abbreviations

CCC: Cairo Central Center, EQS  
CDBA: Central Department of Branch Affairs, EEAA  
CDCEA: Central Department of Communication and Environmental Awareness, EEAA  
CEO: Chief Executive Officer, EEAA  
GC RBO: Greater Cairo RBO, EEAA  
EEAA: Egyptian Environmental Affairs Agency  
EMD: Environmental Management Department, RBO  
EMU: Environmental Management Unit, Governorates  
EMS: Environmental Management Sector, EEAA  
EMTP : Environmental Monitoring Training Project  
EMTP-FU : Environmental Monitoring Training Project Follow-up  
EQD: Environmental Quality Department, RBO  
EQS: Environmental Quality Sector, EEAA  
JICA: Japan International Cooperation Agency  
NGOs: Non-governmental Organizations  
NIOF: National Institute of Oceanography and Fisheries  
NRC: National Research Center  
NWRC: National Water Research Center  
ODA: Official Development Assistance  
OJT: On-the-Job Training  
RBO: Regional Branch Office, EEAA

### I. COOPERATION BETWEEN THE EGYPTIAN GOVERNMENT AND JICA

1. The Government of the Arab Republic of Egypt will implement the Regional Environmental Management Improvement Project (hereinafter referred to as "the Project") in cooperation with JICA.
2. The Project will be implemented in accordance with the Master Plan as shown in ANNEX 1 and be managed by the use of the Project Design Matrix and Tentative Plan of Operation as shown in ANNEX 2 and ANNEX 3.

### II. MEASURES TO BE TAKEN BY THE EGYPTIAN SIDE

1. The Government of the Arab Republic of Egypt will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement in the Project by all related authorities, beneficiary groups and institutions.
2. In accordance with the provision of Article III of the Agreement, the Government of the Arab Republic of Egypt will ensure that the technologies and knowledge acquired by the Egyptian

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nationals as a result of Japanese technical cooperation will contribute to the economic and social development of the Arab Republic of Egypt.

3. In accordance with the provisions of Article IV and V of the Agreement, the Government of the Arab Republic of Egypt, within its legislations, will grant in the Arab Republic of Egypt facilitation, exemptions and benefits to the Japanese experts referred to in III-1 below and their families.
4. In accordance with the provisions of Article VII of the Agreement, the Government of the Arab Republic of Egypt will take the measures necessary to receive and use the Equipment provided by JICA under III-3 below and equipment, machinery and materials carried in by the Japanese experts referred to in III-1 below.
5. In accordance with laws and regulations in force in the Arab Republic of Egypt, the Government of the Arab Republic of Egypt will take necessary measures to supply or replace at its own expense machinery, equipment, vehicles, tools, spare parts, and any other materials necessary for the implementation of the Project other than the Equipment provided through JICA under III-3 below, as listed in ANNEX 4.
6. The Government of the Arab Republic of Egypt will take necessary measures to ensure that the knowledge and experience acquired by the Egyptian counterpart personnel of the Project through technical training in Japan will be utilized effectively in the implementation of the Project.
7. In accordance with the provision of Article IV-(b) of the Agreement, the Government of the Arab Republic of Egypt will provide the services of the Egyptian counterpart personnel of the Project and administrative personnel as listed in ANNEX 4.
8. In accordance with the provision of Article IV-(a) of the Agreement, the Government of the Arab Republic of Egypt will provide the buildings and facilities necessary for the Project as listed in ANNEX 4.
9. In accordance with the laws and regulations in force in the Arab Republic of Egypt, the Government of the Arab Republic of Egypt will take necessary measures to meet the running expenses necessary for the implementation of the Project.

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### III. MEASURES TO BE TAKEN BY JICA

In accordance with the laws and regulations in force in Japan, and the provisions of the Article III of the Agreement, JICA will take, at its own expense, the following measures according to the normal procedures of its technical cooperation scheme.

#### 1. DISPATCH OF JAPANESE EXPERTS

JICA will provide the services of Japanese experts as listed in ANNEX 5. The provision of Article VIII of the Agreement will be applied to the above-mentioned experts.

#### 2. TRAINING OF EGYPTIAN PERSONNEL IN JAPAN

JICA will receive Egyptian counterpart personnel of the Project for their technical training in Japan. Tentative list of contents of the training are shown in ANNEX 5.

#### 3. PROVISION OF MACHINERY AND EQUIPMENT

JICA will provide machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project. Tentative list of equipment to be procured is shown in ANNEX 5. The provision of Article VII of the Agreement will be applied to the Equipment.

### IV. ADMINISTRATION OF THE PROJECT

1. Chief Executive Officer of EEAA, as the Project Director, will bear overall responsibility for the administration and implementation of the Project.
2. Advisor for International Relation and Technical Cooperation, as the Project Advisor, will be in charge of the overall project management. The Heads of the relevant sectors and departments, and General Directors of the preceding RBOs, as the Project Managers and the Project Assisting Managers, will be responsible for the managerial and technical matters of the Project.
  - (1) for data interpretation and countermeasures proposal  
: Head of the Environmental Quality Sector
  - (2) for hazardous substances management: Head of the Environmental Management Sector
  - (3) for training and public awareness : Head of the Central Department of Communication and Environmental Awareness
  - (4) for On-the-Job Trainings at RBOs : Head of the Central Department of Branches Affairs

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General Director of Greater Cairo RBO

General Director of Suez RBO

General Director of RBOs relevant to the Project components

For the administrative structure of the Project, refer to ANNEX 6.

3. The Japanese Chief Advisor will provide necessary recommendations and advices to the Project Director, the Project Advisor, the Project Managers, and the Project Assisting Manager on any matters pertaining to the implementation of the Project.
4. The Japanese experts will provide necessary technical guidance and advice to the Egyptian counterpart personnel on technical matters pertaining to the implementation of the Project.

For the effective and successful implementation of technical cooperation for the Project, a Joint Steering Committee and technical committees will be established. Their function and composition are described in ANNEX 7.

## **V. JOINT EVALUATION**

Evaluation of the Project will be conducted jointly by the Egyptian side and JICA, at the middle of and during the last six months of the cooperation term in order to examine the level of achievement.

## **VI. EX-ANTE EVALUATION OF THE MASTER PLAN**

EEAA and the Team have evaluated the Master Plan following the criteria of relevance, efficiency, effectiveness, impact and sustainability. The result of the evaluation is shown in ANNEX 8.

## **VII. CLAIMS AGAINST JAPANESE EXPERTS**

In accordance with the Provisions of Article VI of the Agreement, the Government of the Arab Republic of Egypt undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Project resulting from, occurring in the course of, or

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otherwise connected with the discharge of their official functions in the Arab Republic of Egypt except for those arising from the willful misconduct or gross negligence of the Japanese experts.

## **VII. MUTUAL CONSULTATION**

There will be mutual consultation between EEAA and JICA on any major issues arising from, or in connection with, this Attached Document.

## **VIII. MEASURES TO PROMOTE UNDERTAKING AND SUPPORT FOR THE PROJECT**

For the purpose of promoting support for the Project among the people of the Arab Republic of Egypt, EEAA will take appropriate measures to make the Project widely known to the people of the Arab Republic of Egypt.

## **IX. TERM OF COOPERATION**

The duration of the technical cooperation for the Project under this Attached Document will be three (3) years from the date agreed upon by "Record of Discussions" (R/D)

## **X. PROVISIONS BEFORE COMMENCEMENT OF THE PROJECT**

Before commencement of the Project, EEAA shall take the following actions:

- 1) to explain the components of the Project to the relevant authorities such as Sector Ministries (Ministry of Agriculture and Land Reclamation, Foreign Trade and Industry, Health and Population, Education, Water Resources and Irrigation, etc.), local governments, universities, institutes such as NRC, Suez Canal Authority, NWRC and NIOF, for smooth implementation of the Project.
- 2) to provide JICA Egypt office with estimated budget from the Egyptian side for the Project, such as internal travel expenses. (Maintenance Cost of EEAA to undertake this work)
- 3) to provide list of the names of technical counterpart personnel for the Project.

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After the provisions mentioned above, when the Project is officially accepted by JICA, the implementation of the Project shall be determined in the "Record of Discussions" (R/D) which would be signed between EEAA and JICA Egypt Office. The official request forms to assign the Japanese expert team for the Project will be submitted by EEAA.

## XI. OTHERS

EEAA requested the Japanese side to provide the maintenance cost (regular maintenance and repair) for newly provided equipments during the Project period, and the Team replied that this issue will be considered in JICA headquarter. And EEAA explained that they will cover the maintenance cost after the completion of the Project.

ANNEX 1	MASTER PLAN
ANNEX 2	PROJECT DESIGN MATRIX (PDM)
ANNEX 3	TENTATIVE PLAN OF OPERATION (PO)
ANNEX 4	LIST OF INPUTS FROM THE EGYPTIAN SIDE
ANNEX 5	LIST OF INPUTS FROM THE JAPANESE SIDE
ANNEX 6	ADMINISTRATIVE STRUCTURE OF THE PROJECT
ANNEX 7	JOINT STEERING COMMITTEE AND TECHNICAL COMMITTEE
ANNEX 8	EX-ANTE EVALUATION OF THE MASTER PLAN

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## ANNEX 1 MASTER PLAN

### 1. Title of the Project

Regional Environmental Management Improvement Project

### 2. Overall goal

EEAA and its RBOs together with other competent stakeholders become capable of evaluating environmental situations, identifying the problems, defining the causes of such problems, acknowledging possible solutions, and implementing countermeasures.

### 3. Project purpose

EEAA and its RBOs are enhanced on the capability of managing environmental data and information, suggesting countermeasures through On-the-Job Training and pilot projects and as well the environmental awareness of EMUs, enterprises, NGOs and citizens are enhanced.

### 4. Outputs

- 1 Staff of EQS and EQD of RBOs becomes capable of proposing countermeasures against environmental pollutions (site-evaluation, technical and administrative measures) based on the data and information collected and interpreted.
- 2 Staff of EQS and EMS of EEAA, and EQDs and EMDs of RBOs becomes capable of designating and identifying hazardous chemical substances, compiling the data and information, and assessing their risks.
- 3 Staff of CDCEA becomes capable of planning, designing, and implementing trainings within EEAA based on the information provided by all other relevant departments/organizations.
- 4 EEAA and its RBOs become capable of raising public awareness to EMUs, enterprises, NGOs, and citizens.

### 5. Activities

- 1-1 To make emission inventories and to analyze emission loads
- 1-2 To interpret and appreciate overall environmental conditions at sites
- 1-3 To propose countermeasures against environmental pollutions
- 1-4 To monitor air quality of regional hot spots with passive samplers

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- 1-5 To implement On-the-Job Training dealing with black smoke episodes observed in Cairo or neighboring area (such as making ordinances, activating early warning systems, capacitating RBO staff and farmers for reducing, reusing and recycling of agricultural wastes)
- 1-6 To implement On-the-Job Training dealing with fingerprint for pollutants of black smoke
- 1-7 To monitor ambient air quality with a real-time monitoring station with a display at a selected site
- 1-8 To implement On-the-Job Training dealing with fingerprint of oil spill in Suez
  
- 2-1 To establish committees among hazardous substances department and stakeholders
- 2-2 To collect information to identify hazardous chemical substances, to implement surveys for preparation of inventory, monitoring, and disposal
- 2-3 To implement surveys for preparation of inventories and to identify potential contaminated sites
- 2-4 To implement On-the-Job training for sampling and analyzing hazardous chemical substances, monitoring and interpreting monitoring data, and proposing countermeasures
- 2-5 To share information through working groups with other ministries, institutions, universities, etc. related to hazardous chemical substances management
- 2-6 To hold seminar(s) on monitoring of hazardous chemical substances and countermeasures such as best available technologies of handling hazardous chemical substances
- 2-7 To hold a seminar (Environmental Monitoring of hazardous chemical substances in Arab Countries) hosted by Egypt (EEAA)
  
- 3-1 To register all courses of staff trainings of departments within EEAA including RBOs
- 3-2 To discuss and summarize needs of training with RBOs and departments of EEAA
- 3-3 To advise specific courses to be participated in by RBOs and EEAA staff
- 3-4 To administer and implement training courses, in correspondence with other Project activities. To prepare and compile materials for training courses
- 3-5 To make feed-back system of final evaluation of training participants to training refreshing
- 3-6 To collect information on industrial pollution abatement technologies including process improvements for compiling as knowledge basis at selected industrial area(s) (such as making manuals/guidelines of pollution abatement technologies for inspectors, holding seminar(s) to introduce pollution abatement technologies for factories)
- 3-7 To hold coordinating committees among RBOs
- 3-8 To implement seminars to share experiences of OJT activities at RBOs with other RBOs and departments
- 3-9 To implement follow-up activities for the seminars of activity 3-7 at each RBOs

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- 4-1 To implement prototype surveys of public awareness of potential target groups at selected site(s)
- 4-2 To analyze needs for awareness raising activities
- 4-3 To design awareness raising activities
- 4-4 To administer and implement awareness raising activities. To prepare and compile materials for regarding activities and to distribute to RBOs
- 4-5 To make feed-back system of final evaluation by participants of awareness raising activities to designing of new activities
- 4-6 To share information through working group with other ministries, institutions, universities, etc. related to public awareness raising
- 4-7 To implement awareness raising activities by utilizing a real-time air quality monitoring station with display (activity 1-7) (such as making brochures and distribute them to explain parameters on the display)

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**ANNEX 2 PROJECT DESIGN MATRIX (PDM)**

Duration of the Project : 3 years from the year 2005  
Target group : EEAA, RBOs, EMUs

Narrative Summary	Indicators	Means of Verification	Important assumptions
<p><b>Overall Goal</b> EEAA and its RBOs together with other competent stakeholders become capable of evaluating environmental situations, identifying the problems, defining the causes of such problems, acknowledging possible solutions, and implementing countermeasures.</p>	<ul style="list-style-type: none"> <li>EEAA is acknowledged as the reliable supporting agency for private and public sectors in Egypt.</li> <li>Appropriate regulations/decrees are stipulated.</li> <li>The regulations and guidelines, etc. are promulgated and executed by sector ministries concerned.</li> </ul>	<ul style="list-style-type: none"> <li>Questionnaire surveys</li> <li>Regulations/decrees</li> </ul>	
<p><b>Project Purpose</b> EEAA and its RBOs are enhanced on the capability of managing environmental data and information, suggesting countermeasures through On-the-Job Training and pilot projects and as well the environmental awareness of EMUs, enterprises, NGOs and citizens are enhanced.</p> <p>研究已取之在内的科学性的 数据也已得之项目的准备。</p>	<ul style="list-style-type: none"> <li>Monitoring data is annually published as a "data book" by EQS.</li> <li>State of Environment (SOE) contains more concrete data obtained from RBO activities (including proposal of decrees)</li> <li>Environmental awareness of enterprises and the citizens is enhanced.</li> <li>Newly started activities for better environmental at the community level (after participating in CDCEA implemented awareness raising activities)</li> </ul>	<ul style="list-style-type: none"> <li>Data-book by EQS</li> <li>SOE</li> <li>Questionnaire surveys</li> </ul>	<ul style="list-style-type: none"> <li>EEAA continues further application of the technologies transferred through the Project after the project completion.</li> <li>Policy and financial support is continuously provided by the Egyptian Government after the project completion.</li> </ul>
<p><b>Outputs</b> 1 Staff of EQS and EQD of RBOs becomes capable of proposing countermeasures against environmental pollutions (site-evaluation, technical and administrative measures) based on the data and information collected and interpreted.</p>	<ul style="list-style-type: none"> <li>Emission inventories are prepared at least for the major industrial zones at three (3) RBOs.</li> <li>Reports are issued based on the analysis of monitored data, emission inventories and emission loads.</li> <li>Increase in number of countermeasure proposals prepared by RBOs</li> <li>Proposals for controlling open burning are prepared.</li> <li>Fingerprint for pollutants of black smoke are identified and reported</li> <li>Air monitoring station with a display is operated and properly maintained.</li> <li>Sources of oil spill polluter(s) are identified and reported.</li> </ul>	<ul style="list-style-type: none"> <li>Emission inventories database</li> <li>Monitoring reports</li> <li>EEAA/RBOs reports</li> <li>Reports of fingerprint of black smoke</li> <li>Operation and maintenance records of a real-time monitoring station</li> <li>Reports of fingerprint of oil spill</li> </ul>	

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<p>2 Staff of EQS and EMS of EEAA, and EQDs and EMDs of RBOs becomes capable of designating and identifying hazardous substances, compiling the data and information, and assessing their risks.</p>	<ul style="list-style-type: none"> <li>Monitoring report(s) are annually issued on hazardous chemical substances.</li> <li>Reports on Egyptian situation of hazardous chemical substances are issued.</li> <li>Number of trained staff is increased</li> <li>Data of pollutants is compiled as database</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring reports</li> <li>EEAA reports on hazardous chemical substances</li> <li>Project reports</li> <li>List of new regulations and rules against hazardous substances</li> <li>Mechanism to control hazardous substances</li> </ul>	
<p>3 Staff of CDCEA becomes capable of planning, designing, and implementing trainings within EEAA based on the information provided by all other relevant departments/organizations.</p>	<ul style="list-style-type: none"> <li>All training courses held by EEAA are registered at CDCEA</li> <li>Training courses are implemented</li> <li>Materials for training are compiled</li> <li>Evaluation by participants of training courses is utilized for refreshing new courses</li> <li>Manuals/guidelines for inspectors are prepared</li> <li>Coordination committees among RBOs are held.</li> <li>RBOs start their new activities after experience sharing with other RBOs</li> </ul>	<ul style="list-style-type: none"> <li>Project reports</li> <li>List of training courses</li> <li>Number of trainees</li> <li>Training materials</li> <li>Questionnaire surveys after training courses</li> <li>Manuals/guidelines for inspectors</li> <li>Follow-up surveys</li> </ul>	
<p>4 EEAA and its RBOs become capable of raising public awareness to EMUs, enterprises, NGOs, and citizens.</p>	<ul style="list-style-type: none"> <li>Reports of baseline surveys of public awareness are issued.</li> <li>All awareness raising activities held by EEAA are registered at CDCEA</li> <li>Awareness raising activities are implemented for EMUs, enterprises, NGOs, and citizens</li> <li>Evaluation by participants of awareness raising activities is utilized for designing new activities</li> <li>Information is shared among related stakeholders</li> <li>Awareness raising activities by utilizing a real-time air quality monitoring station are implemented by CDCEA</li> </ul>	<ul style="list-style-type: none"> <li>Reports of baseline surveys</li> <li>EEAA/RBO reports</li> <li>Reports of seminars</li> <li>List of examples about process improvement</li> <li>List of seminars and awareness raising activities for NGOs and communities</li> <li>Questionnaire surveys after campaigns, seminars, or so</li> <li>Manuals and materials for awareness raising</li> </ul>	

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Activities	INPUTS		Important assumptions
<p><b>Output 1: Capacity development on data interpretation and countermeasures proposal</b></p> <ul style="list-style-type: none"> <li>1-1 To make emission inventories and to analyze emission loads</li> <li>1-2 To interpret and appreciate overall environmental conditions at sites</li> <li>1-3 To propose countermeasures against environmental pollutions</li> <li>1-4 To monitor air quality of regional hot spots with passive samplers</li> <li>1-5 To implement On-the-Job Training dealing with black smoke episodes observed in Cairo or neighboring area (such as making ordinances, activating early warning systems, capacitating RBO staff and farmers for reducing, reusing and recycling of agricultural wastes)</li> <li>1-6 To implement On-the-Job Training dealing with fingerprint for pollutants of black smoke at several site(s)</li> <li>1-7 To monitor ambient air quality with a real-time monitoring station with a display at a selected site</li> <li>1-8 To implement On-the-Job Training dealing with fingerprint of oil spill in Suez</li> </ul> <p>Note: any practical areas that would help in the solution of the black smoke episode would be considered and discussed between the Japanese experts and EEAA technical counterparts to be integrated under this output.</p> <p><b>Output 2: Sound management of hazardous chemical substances at one selected site</b></p> <ul style="list-style-type: none"> <li>2-1 To establish committees among hazardous substances department and stakeholders</li> <li>2-2 To collect information to identify hazardous chemical substances, to implement surveys for preparation of inventory, monitoring, and disposal</li> <li>2-3 To implement surveys for preparation of inventories and to identify potential contaminated sites</li> <li>2-4 To implement On-the-Job Training for sampling and analyzing hazardous chemical substances, monitoring and interpreting monitoring data, and proposing countermeasures</li> <li>2-5 To share information through working groups with other ministries, institutions, universities, etc. related to hazardous chemical management</li> <li>2-6 To hold seminar(s) on monitoring of hazardous chemical substances and countermeasures such as best available technologies of handling hazardous chemical substances</li> <li>2-7 To hold a seminar (Environmental Monitoring of hazardous chemical</li> </ul>	<p>The Egyptian side</p> <ul style="list-style-type: none"> <li>1. Assignment of counterpart personnel and other necessary personnel</li> <li>2. Land, building and facilities for the Project</li> <li>3. Running expenses for the Project</li> </ul>	<p>The Japanese side</p> <ul style="list-style-type: none"> <li>1. Dispatch of experts</li> <li>2. Training of counterpart personnel in Japan</li> <li>3. Provision of equipment</li> </ul>	

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<p>substances in Arab Countries) hosted by Egypt (EEAA)</p>			
<p><b>Output 3: Training and Information sharing within EEAA and for other stakeholders</b></p>			
3-1	To register all courses of staff trainings of departments within EEAA including RBOs		
3-2	To discuss and summarize needs of training with RBOs and departments of EEAA		
3-3	To advise specific courses to be participated in by RBOs and EEAA staff		
3-4	To administer and implement training courses, in correspondence with other Project activities. To prepare and compile materials for training courses		
3-5	To make feed-back system of final evaluation by training participants to training refreshing		
3-6	To collect information on industrial pollution abatement technologies including process improvements for compiling as knowledge basis at selected industrial area(s) (such as making manuals/guidelines of pollution abatement technologies for inspectors, holding seminar(s) to introduce pollution abatement technologies for factories)		
3-7	To hold coordinating committees among RBOs		
3-8	To implement seminars to share experiences of OJT activities at RBOs with other RBOs and departments		
3-9	To implement follow-up activities for the seminars of activity 3-7 at each RBOs		
<p><b>Output 4: Public awareness raising for EMUs, enterprises, NGOs, and citizens</b></p>			
4-1	To implement prototype surveys of public awareness of potential target groups at selected site(s)		
4-2	To analyze needs for awareness raising activities		
4-3	To design awareness raising activities		
4-4	To administer and implement awareness raising activities. To prepare and compile materials for regarding activities and to distribute to RBOs		
4-5	To make feed-back system of final evaluation by participants of awareness raising activities to designing of new activities		
4-6	To share information through working group with other ministries, institutions, universities, etc. related to public awareness raising		
4-7	To implement awareness raising activities by utilizing a real-time air quality monitoring station with display (activity 1-7) (such as making brochures and distribute them to explain parameters on the display)		

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ANNEX 3 TENTATIVE PLAN OF OPERATION (PO)

PROJECT TITLE: "Regional Environmental Management Improvement Project" in the Arab Republic of Egypt

Outputs and Activities	2006				2007				2008				09	Egyptian Counterpart	
	IV	I	II	III	IV	I	II	III	IV	I	II	III			IV
<b>Output 1: Capacity development on data interpretation and countermeasures proposal</b>															
1-1 To make emission inventories and to analyze emission loads															EQS EQD of RBOs
1-2 To interpret and appreciate overall environmental conditions at sites															EQS EQD of RBOs
1-3 To propose countermeasures against environmental pollutions															EQS, EQD of RBOs
1-4 To monitor ambient air quality of regional hot spots with passive samplers															GC RBO, Alexandria RBO, Suez RBO, Tanta RBO, Mansoura RBO
1-5 To implement On-the-Job Training dealing with black smoke episode observed in Cairo or neighbouring area															GC RBO, Tanta RBO, Mansoura RBO, Air quality dept.
1-6 To implement On-the-Job Training dealing with fingerprint for pollutants of black smoke															GC RBO, Tanta RBO, Mansoura RBO, Air quality dept.
1-7 To monitor ambient air quality with a real-time monitoring station with a display at a selected site															GC RBO, Air quality dept.
1-8 To implement On-the-Job Training dealing with fingerprint of oil spill in Suez															Suez RBO, coastal water department
<b>Output 2: Sound management on hazardous chemical substances at one selected site</b>															
2-1 To establish committees among hazardous substances department and stakeholders															hazardous substances dept.
2-2 To collect information to identify hazardous chemical substances, to implement surveys for preparation of inventory, monitoring, and disposal															hazardous substances dept., CCC, GCRBO
2-3 To implement surveys for preparation of inventories and to identify potential contaminated sites															hazardous substances dept., CCC, GCRBO
2-4 To implement On-the-Job Training for sampling and analyzing hazardous chemical substances, monitoring and interpreting monitoring data, and proposing countermeasures															hazardous substances dept., CCC, GCRBO
2-5 To share information through working groups with other ministries, institutions, universities, etc. related to hazardous chemical substances management															hazardous substances dept.
2-6 To hold seminar(s) on monitoring of hazardous chemical substances and countermeasures such as best available technologies of handling hazardous chemical substances															hazardous substances dept.
2-7 To hold a seminar (Environmental Monitoring of hazardous chemical substances in Arab Countries) hosted by Egypt (EEAA)															hazardous substances dept. (inviting Morocco, Tunisia, Jordan, Palestine, Syria, etc.)

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Outputs and Activities	2006				2007				2008				09	Egyptian Counterpart	
	I	II	III	IV	I	II	III	IV	I	II	III	IV			I
<b>Output 3: Training and information sharing within EEAA and for other stakeholders</b>															
3-1 To register all courses of staff trainings of departments within EEAA including RBOs															CDCEA
3-2 To discuss and summarize needs of training with RBOs and departments of EEAA															CDCEA
3-3 To advise specific courses to be participated in by RBOs and EEAA staff															CDCEA
3-4 To administer and implement training courses, in corespondence with other Project activities. To prepare and compile materials for training courses															CDCEA, with EQS, EMS, RBOs etc.
3-5 To make feed-back system of final evaluation of training participants to training refreshing															CDCEA, CDBA, RBOs
3-6 To collect information on industrial pollution abatement technologies including process improvements for compiling as knowledge basis at selected industrial areas(s)															CDCEA, CDBA, Alexandria RBO
3-7 To hold coordinating committees among RBOs															CDBA
3-8 To implement seminars to share experiences of OJT activities at RBOs with other RBOs and departments															CDBA
3-9 To implement follow-up activities for the seminars of activity 3-7 at each RBOs															RBOs
<b>Output 4: Public awareness raising for EMUs, enterprises, NGOs, and citizens</b>															
4-1 To implement prototype surveys of public awareness of potential target groups at selected site(s)															CDCEA, CDBA, RBOs
4-2 To analyze needs for awareness raising activities															CDCEA, CDBA, RBOs
4-3 To design awareness raising activities															CDCEA, CDBA, RBOs
4-4 To administer and implement awareness raising activities. To prepare and compile materials and to distribute to RBOs															CDCEA, CDBA, RBOs
4-5 To make feed-back system of final evaluation by participants of awareness raising activities to designing of new activities															CDCEA, CDBA, RBOs
4-6 To share information through working group with other ministries, institutions, universities, etc. related to public awareness raising															CDCEA, CDBA, RBOs
4-7 To implement awareness raising activities by utilizing a real-time air quality monitoring station with display (activity 1-7)															CDCEA, CDBA, GC RBO

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**ANNEX 4 LIST OF INPUTS FROM THE EGYPTIAN SIDE**

**1. Tentative list of counterpart personnel**

**1-1 Project administrative management counterpart**

No	Full name	Role in the Project	Position
1	Mohamed Sayed Khalil	Project Director	Chief Executive Officer (CEO)
2	George Tawfic Kondos	Project Advisor	Advisor for international relation and technical cooperation
3	Fatma Mohamed Abou El Shouk	Project Manager	Head of Environmental Management Sector (EMS)
4	Mawaheb Abou El Azm	Project Manager	Head of Environmental Quality Sector (EQS)
5	Yahia Abdalkader Abdallah	Project Manager	Head of Central Department of Communication and Environmental Awareness (CDCEA)
6	Ali Abu Sedira	Project Manager	Head of Central Department for Branches Affairs (CDBA)
7	Magdy Allam	Project Assisting Manager	General Director, Greater Cairo RBO
8	Laila El-Khouhi	Project Assisting Manager	General Director, Suez RBO
9	Heba M. Hassanein	Project Coordinator	International Relation Officer, Department of International Relation and Technical Cooperation

**1-2 Technical Counterpart**

No	Full name	Position
1	Ahmed Abou Elseoud Ahmed	General manager, Air Quality Department, EQS
2	Kawsar Hefny	Manager, Air Quality Department, EQS
3	Shabrawy Mohamed Mahmoud	Coastal Water Department, EQS
4	Ekhlas Gamal Eldin	CCC, EQS
5	Elham Rafaat	Director, Hazardous Substance Department, EMS
6	Ahmed Gamal Daoud	Hazardous Substance Department, EMS
7	Eman Mohamed El Mahrouky	Hazardous Substance Department, EMS
8	Yasser Badr El Den	Hazardous Substance Department, EMS
9	Amany Sahah El din	Hazardous Substance Department, EMS
10	Hanan El Hadeny	Director, Industrial Unit, EMS
11	Mohamed Borhan	Coastal Zone Management Department, EMS
12	Hoda El-Shayeb	Training Department, CDCEA
13	Fouad Megahed	Public Awareness Department, CDCEA
14	Manal El-Tantawy	CDBA

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15		EMD, Greater Cairo RBO
16		EMD, Greater Cairo RBO
17		EQD, Greater Cairo RBO
18		EQD, Greater Cairo RBO
19		EMD, Alexandria RBO
20		EMD, Alexandria RBO
21		EQD, Alexandria RBO
22		EQD, Alexandria RBO
23		EMD, Suez RBO
24		EMD, Suez RBO
25		EQD, Suez RBO
26		EQD, Suez RBO
27		EMD, Mansoura RBO
28		EQD, Mansoura RBO
29		EMD, Tanta RBO
30		EQD, Tanta RBO
31		EMD, Harghada RBO
32		EQD, Harghada RBO
33		EMD, Aswan RBO
34		EQD, Aswan RBO
35		EMD, Assiut RBO
36		EQD, Assiut RBO

## 2 LIST OF BUILDINGS AND FACILITIES

1. Office space and necessary facilities in the buildings of the Project for Japanese Expert Team and meetings
2. Facilities and services such as electricity, gas, water supply, telephone, internet access and furniture necessary for the Project activities
3. Other facilities mutually agreed upon as necessary

## 3 LIST OF EQUIPMENT AND MATERIALS

EEAA shall supply or replace the equipment and materials at its own expense, including followings:

- consumable chemicals
- available equipment in use in laboratories

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## ANNEX 5 LIST OF INPUTS FROM THE JAPANESE SIDE

### 1. Dispatch of the JICA Experts Team for the Project

Disciplines to be covered by the Experts Team are as follows:

- 1) Chief advisor / Training advisor
- 2) Local environmental management (air quality)
- 3) Local environmental management (water quality)
- 4) Suspended Particle Matters (black smoke) and countermeasures
- 5) Analysis of spilled oil and countermeasures
- 6) Hazardous substance analysis and management
- 7) Production process improvement (industrial pollution abatement)
- 8) Awareness and environmental education for the citizens
- 9) Equipment management / Equipment procurement

### 2. Training in Japan

Tentative plan of disciplines to be covered by training in Japan are as follows:

- 1) Black smoke and agricultural waste
- 2) Emission inventory and emission loads
- 3) Hazardous chemical substances sampling and analysis
- 4) Hazardous chemical substances management (such as CP technology options, hazardous chemical substances modeling and risk assessment)
- 5) Remediation for polluted site by hazardous chemical substances
- 6) Fingerprint technique for spilled oil
- 7) Production process improvement
- 8) Training designing (ex. Training for PCM moderator)
- 9) Public awareness

### 3. List of the Equipment

The tentative list of the major equipment, which is subject to budget approval, necessary for the implementation of the Project is shown as follows. The details of the equipment will be discussed between EEAA and JICA expert team. The official request forms for provision of the equipment will be submitted by EEAA.

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The tentative list of the major equipment

Equipment	details	Place of installation
1 Equipment for Air Quality Monitoring		
1.1 UV-VIS	Measurement for NO <sub>x</sub>	Greater Cairo RBO
1.2 Ion-chromatograph	Measurement for SO <sub>x</sub> , DIONEX	CCC
1.3 Passive Sampler	Including filter for SO <sub>x</sub> , NO <sub>x</sub> , F and reagents	5 RBOs, CCC
1.4 real-time monitoring station with a display		At a selected site (Cairo)
2 Equipment for Spilled oil analysis		
2.1 Fluorescence meter	Total hydrocarbons	Suez RBO
2.2 FT IR	Specification of oil	-ditto-
2.3 Refractive meter	-ditto-	-ditto-
2.4 Viscosity meter	-ditto-	-ditto-
2.5 Incubator	For viscosity measurement ( $\pm 0.5$ )	-ditto-
3 Equipment for PCBs, PAH and HM Analysis		
3.1 Multifunctional Fluorescence Detector for HPLC	PAH analysis of sediment, air particulate, including degaser and separation column ( Supelco, Cat.No.58318)	CCC
3.2 Freeze drier	Pretreatment (dryong)of biological samples	-ditto-
3.3 Standard of PCBs	For GC and GC-MS(Isomers)	-ditto-
3.4 Standard of PAH and Hydrocarbons		-ditto-
3.5 Clean-up equipment and reagents	Including SPE disk, Cartridge of Silica and Florisil, etc	-ditto-
3.6 AAS Attachment: Hydrogenation-Reductive vapourization	Measurement of Mercury and Arsenic	-ditto-
3.7 GC-ECD		-ditto-
3.8 Water checker	CTD XL 6000 or 9000	Hazardous substances dept.
3.9 GPS	GARMIN	-ditto-
3.10 Laptop-Data show		-ditto-
4 Equipment for process improvement of Industries		
4.1 Auto sampler for air		To a selected RBO
4.2 Devices for heat stress and moisture		-ditto-
4.3 Auto sampler for water	ISCO/Model-3700, including (E-Trex Carry, E-Trex Lighter Adaptor, E-Trex Interface Cable)	-ditto-

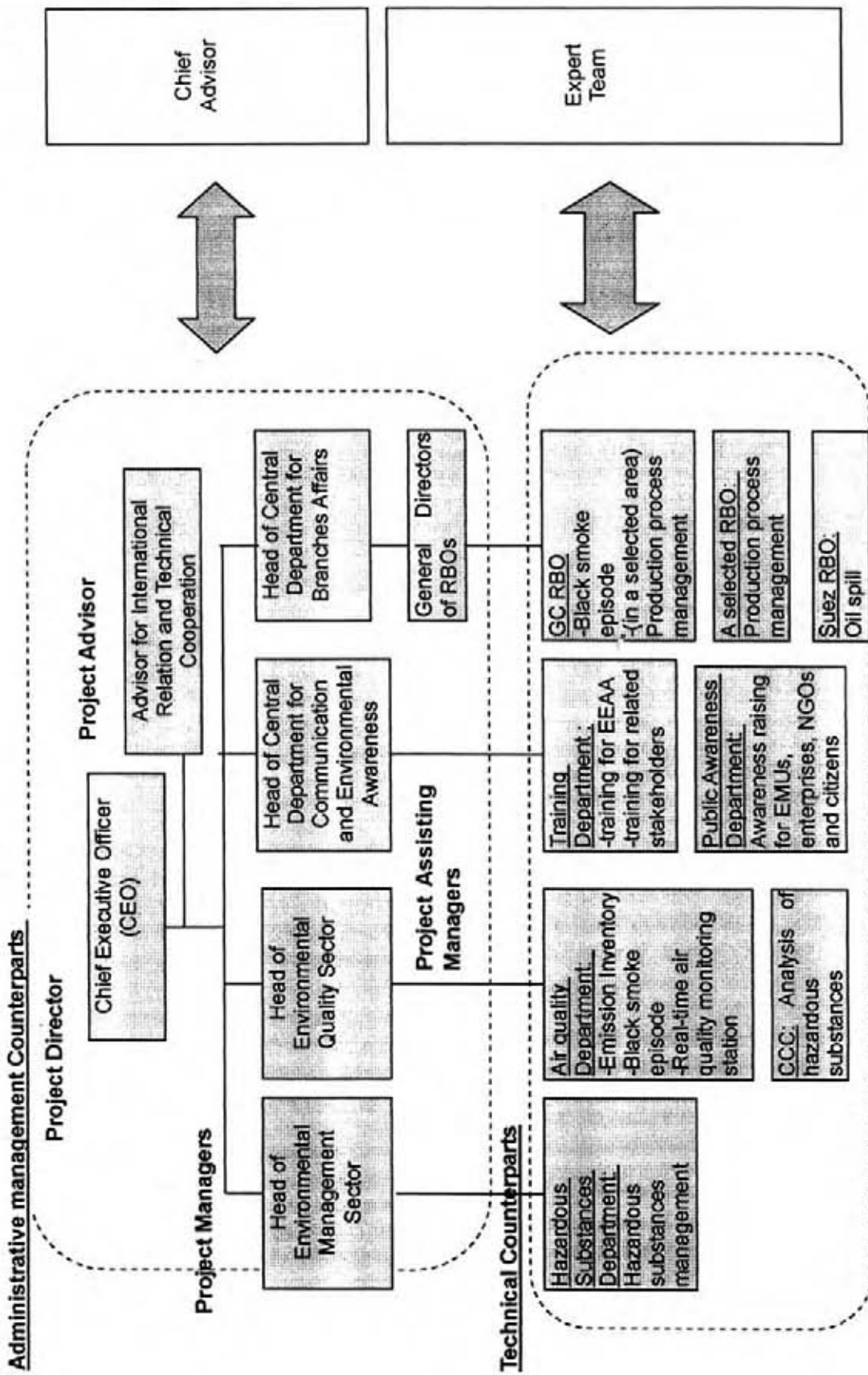
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ANNEX 6 ADMINISTRATIVE STRUCTURE OF THE PROJECT

Egyptian side

Japanese side



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## ANNEX 7

### JOINT STEERING COMMITTEE AND TECHNICAL COMMITTEE

#### 1-1 Functions

The Joint Steering Committee will be held at least twice a year and whenever necessity arises in order to fulfill the following functions;

- (1) To formulate Annual Plans of Operations (APO) of the Project based on the Tentative Plan of Operation (PO) within the framework of the Record of Discussions.
- (2) To coordinate necessary actions to be taken by the both sides,
- (3) To review the overall progress of the PO as well as the achievement of the APO, and
- (4) To exchange opinions on major issues arising or in connection with the implementation of the Project.

#### 1-2 Composition

CEO is the chairperson. The chairperson would invite appropriate members from the following members in accordance with topics to be discussed at the regarding committee.

##### a) Egyptian side

No.	Position
1	CEO
2	Advisor for International Relation and Technical Cooperation
3	Head of Environmental Management Sector
4	Head of Environmental Quality Sector
5	Head of Central Department for Communication and Environmental Awareness
6	Head of Central Department for Branches Affairs
7	General Director of Greater Cairo RBO
8	General Director of Suez RBO
9	General Director of RBOs relevant to the Project components

The representatives of Sector Ministries shall be invited at the Joint Steering Committee as deemed necessary in connection with the implementation of the components of the Project by the chairperson and JICA Expert team.

No.	Position
10	Person in charge, National Research Center
11	Person in charge, Ministry of Health and Population

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12	Person in charge, Ministry of Agriculture and Land Reclamation
13	Person in charge, Ministry of Foreign Trade and Industry
14	Person in charge, Ministry of Education
15	Person in charge, Ministry of Water Resource and Irrigation
16	Person in charge, related Governorates

b) Japanese side

- Japanese experts team
- Representatives of JICA Egypt Office
- Members of JICA study team, to be dispatched when necessary

Note: Official(s) of the Embassy of Japan in Cairo may attend the Joint Steering Committee as observer(s).

## 2 Technical committee

### 2-1 Functions

Technical committees corresponded to each project component will be established and held at least quarterly and whenever necessity arises in order to fulfill the following functions:

- 1) To formulate monthly Plans of Operation and contents of activities for each components of the Project in line with the annual plan of operation of the Project
- 2) To review the progress of plan of operation
- 3) To evaluate the achievement of the objectives; and
- 4) To exchange views on issues arising from or in connection with the Project.

### 2-2 Composition

The Project Manager relevant to the component of the Project will be the chairperson. The Chairperson would invite appropriate members, such as technical counterpart personnel of components, representatives of relevant organization in accordance with topics to be discussed at the committee, such as NRC, Suez Canal Authority, NWRC, and NIOF. The list of the names of the members will be mutually agreed upon from the Egyptian and the Japanese sides.

a) Egyptian side

Will be invited in accordance with topics to be discussed.

b) Japanese side

- Japanese experts
- officer of JICA Egypt Office if necessary

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### **3 Coordination Committee among RBOs**

#### **3-1 Functions**

The Coordination Committee among RBOs at the working level will be held chaired by technical advisor for CDDBA at least twice a year and whenever necessity arises in order to share experience and information of OJT activities of the Project.

#### **3-2 Composition**

Technical Advisor for CDDBA is the chairperson. Members are representatives of all eight (8) RBOs and Japanese experts team.

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## ANNEX 8 EX-ANTE EVALUATION OF THE MASTER PLAN

### 1 Relevance

The Egyptian Government puts emphasis and priority on environmental protection and improvement as one of the main tasks to tackle with, as shown in “Egypt and the 21st Century”, which is her long-term social and economic development plan targeting from 1997 till 2017, and in the Fifth Economic and Social Development Five-Year Plan (2003-2007) as well. The enactment of the Environmental Protection Law No4 of 1994 addressed several significant legislative gaps in the framework for environmental protection by the earlier laws, and EEAA has expanded their functions and responsibilities in all fields of environment as the official entity of implementing Law No4. In 1997, a Minister of State for Environment Affairs was appointed as the key spokesman in the Council of Ministers. During the decade afterward, EEAA has endeavored to develop its capacity in the national environmental management. The five year action plan of EEAA (2002-2007) has fourteen action programmes including “Capacity Development of EEAA and RBO's”, “Environmental Education, Training and Awareness “, and “International Environmental Commitments of Egypt”. Japan has been active in those fields since 1997 with EMTP for five (5) years and EMTP-FU for the following two (2) years, which has focused on building up on-hand environmental monitoring capability of EEAA. As a result, assisted by other donors as well, EEAA has now seen their capability improvement in data collection and monitoring to the satisfactory degree. The next step is to interpret the monitoring results into countermeasures, which is still not sufficiently developed in EEAA and an acute need for them. To enhance such a capability of EEAA can contribute not only to accelerating the nation-wide environmental improvements, but also to facilitating the export of products from Egypt to other countries.

Japanese ODA policies, on the other hand, put high priority on “environmental protection and improvement of living conditions” as one of the five (5) target fields of support for Egypt. Although Egypt has been receiving supports of many international donors in the fields of environment, the amount of the needs is rather huge and still not covered comprehensively. Thus, the Government of Japan is still in a position to render the support for the Government of Egypt in the environmental fields with the belief that it should contribute to facilitating further the country’s sustainable development. It is necessary for the technologies transferred through EMTP and EMTP-FU yet to be fully utilized for implementing countermeasures against environmental pollutions through furthering their capability of effective and efficient interpretation of environmental data collected and monitored.

Thus, the Project can be said sufficiently relevant with meeting the needs of Egypt and also the Japanese aid policies to Egypt.

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## 2 Effectiveness

The Egyptian side has accumulated and upgraded their technical capacity through EMT<sup>2</sup> and EMTP-FU up to the extent that they can carry out sampling, analysis of water, air and solid wastes, and define those qualities, while the capacity has also been developed in sound operation of laboratories, teaching and training RBO laboratories staffs, collection and management of monitoring data at CCC. Thus, EEAA has well advanced their capacity in carrying out environmental data analysis and monitoring on its own. Still, stepping forwards to upgrade their technologies and experiences in data interpretation is the area of necessity in order to utilize data and information collected and monitored for putting into appropriate planning with enough scientific evidences in hand of proposing countermeasures.

From refreshing the review on the policies and activities of other international donors, already many supports have been put in place especially in the fields of environment related institutional building and information network. Then, the Government of Japan, with proper linking or collaboration with the donors concerned working in the area of institutional and informational fields, should focus on capacity development in terms of environmental data interpretation through implementing On-the-Job Trainings dealing with on-site local environmental issues and assistance in proposing countermeasures. Through this path of support, there could be found high potential for EEAA to increase effectiveness of their activities and of the management and administration as a whole.

## 3 Efficiency

Considering that many donors have been supporting Egypt in environmental field, the Project should be carried out with the least duplication with them, rather seeking possibility to interlink the activities to complement each other for increasing efficiency. Seen from this perspective, there are several areas without any other donors working on by now, e.g. data interpretation and countermeasures proposal, hazardous substances management, which are going to be dealt within the Project.

Egyptian environmental administration has been seeking decentralization which is well recognized among concerned parties. In this context, EEAA with the donors' supports including Japan has been trying to upgrade RBOs' (and EMUs') capacity of environmental management such as their monitoring capabilities. Considering that RBOs sit in the closest and the most suitable positions to take quick and appropriate actions in tackling their local problems, it is efficient to develop the capacity of RBOs through practical trainings of On-the-Job nature and implementing some small scale pilot projects. For supporting the EEAA headquarter, it is planned to focus on the portion of the fields which require relatively high standards of technologies, difficult for RBOs to deal with on their own at present. Through the supports above, the Project can expect to elevate

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efficiently the bottom line of the environmental management and technical capabilities in many scenes of Egyptian environmental status quo.

#### **4 Impact**

Through consolidating environmental management and technical capabilities at local institutions such as RBOs, it becomes certain to open and facilitate the path of quality local environmental data and information to the EEAA headquarter and to improve their capabilities in interpreting those data and information to locality, resulting in more precise recognition of the national environmental conditions. This enables those concerned institutions, either central or local, to design more effective and efficient countermeasures and even policies with good scientific basis. Countermeasures to be proposed may include not only command and control measures but also appropriate support measures necessary for private sectors and other concerned organizations to follow the enforcing laws and regulations, which should make EEAA more convincing entity both for private and public organizations, thus accelerate execution of countermeasures. The trainings and awareness raising activities for EMUs, enterprises, NGOs, and citizens organized by EEAA through the Project will enhance capability of the Egyptian society to direct it as a whole towards environmental improvements. In the end, it can be expected to augment EEAA's national environmental management capacity. The Project will activate the activities of sector ministries and institutions.

Besides, it becomes highly viable in the near future for Egypt to play a leading role in the environmental management in Arab-African countries such as through offering technical trainings based on its proven experiences.

#### **5 Sustainability**

Policies and institutional sustainability of the Project is considered sufficiently high for the following reasons: firstly, tackling environmental problems is one of the major development tasks of the country as clearly stated in its long-term development plans. Secondly, environmental pollution can seriously harm its potential as one of the most popular tourist destinations in the world, which is strongly recognized by the Government. Thirdly and similarly to the second, it is also anticipated to decrease its exporting power, particularly to North American and European countries, which would lead huge loss in its economy. As for the counterpart, the Project works with EEAA, both RBOs and headquarter, which is the governmental organizations officially assigned to decision-making and implementation in environmental field as a whole. This shows that the counterparts are fully authorized in utilizing the technologies to be transferred in the coming Project even after the Project is phased out.

Besides, the Project will enhance the capability of EEAA to implement the inner training

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within EEAA, and this contributes the sustainability of the capacity development by EEAA itself after the Project is phased out.

It is basically considered that financial and operational sustainability is important due to the constant budget allocation from the government with necessary amount, together with the political backup of the government. Careful attention and necessary response should be taken on this point due to the current trend that several donors are in the process of shifting their support from environmental field to others like poverty alleviation.

In technological aspect, positive factors can be found. First of all, the persons who took part in EMTP and EMTP-FU still work for EEAA, although some of them have been promoted to other positions than before, and it helps the Project to utilize the technologies accumulated in EEAA as the basis for further upgrading of the institution. At local level as well, RBOs has been stepping up in environmental monitoring activities without fail, which enables the effective division of work between RBOs and headquarter to a certain extent. This can facilitate decentralization as well, which is in line with the Egyptian policy of national environmental management

## 6 Conclusions

The Project is considered basically inevitable to utilize fully the transferred technologies in EMTP and EMTP-FU to make the monitoring results to be interpreted into proper countermeasures, which in the end would contribute to improve the environmental in Egypt. It is designed not to have crucial duplication with other donors' support but to interlink with them to increase effectiveness and efficiency each other. As shown above, the Project is given high marks on all the five (5) evaluation criteria.

The potential risk for the Project is frequent cases of missing links among sectors/ departments within EEAA and also with other concerned organizations, which actually interrupts smooth implementation of activities. Since the success of the Project largely depends on good coordination for linking monitoring results to decision-making each step of which is usually taken by different group, careful consideration and arrangement should be given to the sufficiently functional institution arrangement on the Egyptian side and to the assignment of highly capable experts of managerial sense on the Japanese side.

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