

# Terminal Evaluation

## Middle East

### 1. Outline of the Project

**Country:**

Egypt

**Project title:**

The Environmental Monitoring Training Project

**Issue/Sector:**

Environment

**Cooperation scheme:**

Project-type Technical Cooperation

**Division in charge:**

Second Development Study Division, Social  
Development Study Department

**Total cost:**

883 Million Yen

**Period of  
Cooperation**

1 September 1997 -  
31 August 2002

**Partner Country's Implementing Organization:**

Egyptian Environmental Affairs Agency (EEAA)

**Supporting Organization in Japan:**

Ministry of the Environment (MOE)

Ministry of Economy, Trade and Industry (METI)

**Related Cooperation:**

Grant Aid; "Project for Supply of Equipment for the Regional Environmental Monitoring Network"  
Provision of Equipment

Dispatch of Experts; "Industrial Pollution Control", "Environmental Administration", etc.

Japan Overseas Cooperation Volunteer "Population and Environment Program"

Country-focused Training Program;; "Regional Environmental Monitoring"

### 1-1 Background of the Project

To cope with water pollution and air pollution, the Government of Egypt enacted the Environmental Laws in 1994 which introduced environmental and emission standards. The law came into effect in February 1998. The Egyptian Environmental Affairs Agency (EEAA) was reconstructed with a new mandate to make an inspection of compliance with the environmental control standard. However, although establishment of a monitoring system was needed as soon as possible, EEAA did not have the capacity to execute environmental monitoring and inspection. The Government of Egypt established the Cairo Central Center (CCC) and eight Regional Branch Offices (RBOs) under EEAA and planed to establish an environment monitoring network covering all over Egypt. Against this background, the Government of Egypt requested the Government of Japan to provide Grant Aid for the necessary monitoring equipment and the Project-type Technical Cooperation to train engineers in monitoring techniques.

### 1-2 Project Overview

To establish an environment monitoring network covering all over Egypt, the Project implemented Training in monitoring techniques and analysis methods for engineers working for CCC and eight RBOs.

#### (1) Overall Goal

Environmental regulatory standards are achieved in Egypt through the effective enforcement of the LAW No.4 of 1994.

#### (2) Project Purpose

CCC and RBO are capable of conducting ambient and point sources monitoring on water, air, and monitoring on industrial solid wastes appropriately.

### (3) Outputs

- 1) CCC and RBO staffs are capable of collecting samples of water, air, and industrial solid wastes, analyzing the samples and interpreting and evaluating the results of analysis.
- 2) CCC's staffs are acquired to manage CCC laboratory by themselves.
- 3) Training of RBO staff are conducted by CCC staff.
- 4) Environmental monitoring information/data is stored and suitability managed.

### (4) Inputs

Japanese side:

Long-term Experts	14	Equipment	135 Million Yen
Short-term Experts	22	Local Cost	37 Million Yen
Trainees received	10	Others	

Egyptian side:

Counterparts	106		
Land and Facilities	16.471 Million Egyptian Pounds (472 Million Yen)		
Local Cost	5.4 Million Egyptian Pounds (155 Million Yen)		

## 2. Evaluation Team

### Members of Evaluation Team

Team Leader/General: Shigeo ISHIDA, Senior Adviser, JICA  
Environment Monitoring: Kentaro INOUE, Professor, Department of Socio-Information, Faculty of Information, Okayama University of Science  
Analysis Technique: Hideyo KOSHIO, Chief Examiner, Air Quality Research Section, Kawasaki Municipal Research Institute for Environmental Protection, Environmental Bureau, Office of Kawasaki City  
Evaluation Planning: Aya OHMURA, Second Technical Cooperation Division, Social Development Cooperation Department, JICA  
Evaluation Analysis: Nobuko NAKAMURA, Office of Evaluation and Post Project Monitoring, Planning and Evaluation Department, JICA.  
Evaluation Analysis: Michiyuki KENMOTSU, Chuo Kaihatsu Corporation

### Period of Evaluation

21 March 2002 - 4 April 2002

**Type of Evaluation:**  
Terminal Evaluation

## 3. Results of Evaluation

### 3-1 Summary of Evaluation Results

#### (1) Relevance

EEAA's role is that of executive organization of Environmental Laws (enacted in 1994, enforced in 1998). In spite of the severe financial constraints, EEAA allocated the CCC and RBO budgets and increased the staff. Thus, the Environmental policy was highly prioritized, and the Project was highly relevant, as well. The Government of Egypt planned to establish a nationwide environment monitoring network, and the Project was aimed at training the engineers for effective monitoring, which was in line with the needs of the Government of Egypt.

#### (2) Effectiveness

In the field of water quality, the counterparts attained the technical level expected in the Project. This was attributed to training

inside and outside of the laboratory with the Long-term Experts providing instruction in techniques and implementing the Nile River Survey as on-the-job training (OJT). In the field of air quality, activities were slightly behind schedule, but the counterparts will acquire the techniques because OJT is going to be conducted intensively from now on. At the terminal evaluation, CCC and RBO implemented environmental monitoring and survey activities for about 623 water quality tests and 581 air quality tests, and reported on them. Some activities are still in progress; however, the Project Purpose will be achieved by the end of the Project.

### (3) Efficiency

As the Project is closely related to other projects, the cost-effectiveness of one part of the five-year cooperation can not be evaluated. However, from the long-term viewpoint in terms of the improvement of environmental monitoring capacity of the Government of Egypt, the inputs from the Japanese side were meaningful. On the other hand, the Secretary of EEAA ordered counterparts to inspect the source of the outbreaks, resulting in the counterparts being frequently absent from the Training sessions. As a result, the implementation of the training was limited in two or three days a week, and the technical transfer was delayed, which interfered with Project activities. However, the inspection eventually became OJT and contributed to the improvement of enforcement capabilities. Therefore, that order cannot be considered totally adverse.

### (4) Impact

Counterparts prepared more than 1,200 survey reports by Secretariat Order, etc. and more than 100 recommendations or orders by the government were announced based on their reports, which targeted improvement. The staff of RBO improved in terms of techniques more than was expected, understood the importance of sampling, analysis and assessment, and worked on daily activities with a high degree of motivation. At the beginning of the Project, the Egyptian side placed importance on the enforcement capability for monitoring the source of the pollution outbreaks. However, as the Japanese side continued to emphasize the importance of general environment monitoring, the Egyptian side became more active in acquiring techniques for general environment monitoring. There are also other positive impacts, such that the Egyptian side prepared to apply for ISO17025 certification and the public began to show an increasing interest in the environment.

### (5) Sustainability

The basic techniques have been transferred to the counterparts and the Egyptian side politically and financially supports the Project. As one example of the support maintenance agreements are concluded for precision equipment. Therefore, the sustainability of the Project is confirmed. However, it is necessary to pay attention to maintaining the technical level for analysis which requires that advanced techniques be conducted with a low frequency, improvement of the CCC laboratory environment and ensuring establishment of a reagent procurement route.

## 3-2 Factors that promoted realization of effects

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### (1) Factors concerning Planning

N/A

### (2) Factors concerning the Implementation Process

N/A

## 3-3 Factors that impeded realization of effects

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### (1) Factors concerning Planning

The Project Design Matrix (PDM) had been designed and revised four times from the preparatory study to terminal evaluation. The Project was interrupted because, when designing the PDM, the Japanese side did not have a good understanding of the background of the request of the Egyptian side, and the definition of Overall Goal and the Project Purpose was not appropriate. At evaluation, the evaluation team clarified the contents of the Project and conducted evaluation as mentioned above.

### (2) Factors concerning the Implementation Process

- 1) The efficiency of the Project was interrupted due to the inability to assign well-experienced experts in environmental administration, the difference in understanding of the terms "general environment" and "monitoring of the source of the outbreaks", and lack of information exchange and discussion between the experts team and the representatives of five RBOs.
- 2) At the beginning of the Project, the Terms of Reference and project documents had not been prepared. Therefore, there were differences in opinions on the knowledge and techniques that the staff of CCC should acquire, which became one of the factors hampering management of the Project.

### **3-4 Conclusion**

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Relevance and impact of the Project are highly evaluated, and the Project Purpose will be almost achieved by the end of the Project. On the other hand, there remain some concerns with the management of the laboratory; here, some support from the Japanese side is desired. However, political support in terms of budget and human resources can be expected, and sustainability can also be expected.

### **3-5 Recommendations**

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- (1) It is necessary to check and adjust the compliance between the items of air analysis specified by JIS standards and Egyptian standards by the end of the Project.
- (2) It is necessary to implement field training, especially in the field of the air quality. By the end of the Project, it is desirable that field training include preparation of a monitoring plan, implementation of the plan, and generation of a report.
- (3) The counterparts of the country have just acquired basic techniques on environment monitoring, and repetitive training is essential to maintain and advance the techniques.
- (4) Toward achievement of the Overall Goal, the environment monitoring data acquired through the Project, the human resources and organizations for monitoring should be well utilized for planning and implementing a survey, with attention paid to "the black spots (dangerous areas)" in Egypt and analyzing the relationship between contamination and the source of the outbreaks.

### **3-6 Lessons Learned**

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- (1) For the success of the Project, personnel related to the Project should understand the Project Purpose and the Overall Goal correctly and work in concert with others toward achievement of the purpose.
- (2) For the success of the Project, it is necessary to make clear the terms of reference, select highly-qualified personnel and allocate them in balance.

### **3-7 Follow-up Situation**

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N/A