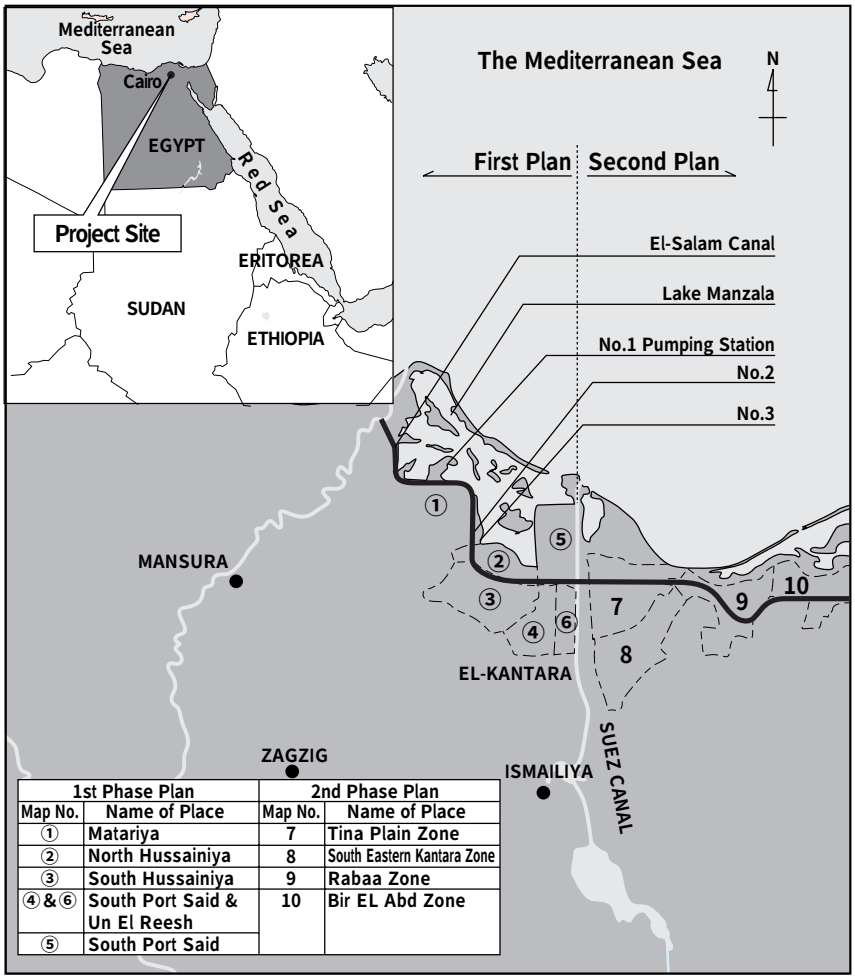
EGYPT

El-Salam Canal Pumping Station Project

Report Date: November1998
Field Survey: Not implemented

1 Project Summary and JBIC's Cooperation

This project is aimed to build pumping stations and related facilities including power transformation facilities to secure the water level in the main irrigation canal (El-Salam Canal) on the 82 km extension linking the Damietta effluent in the eastern side of the Nile delta in Egypt with the Suez Canal.
The ODA loan covers the entire foreign currency portion for this project.



1st Phase Plan		2nd Phase Plan	
Map No.	Name of Place	Map No.	Name of Place
①	Matariya	7	Tina Plain Zone
②	North Hussainiya	8	South Eastern Kantara Zone
③	South Hussainiya	9	Rabaa Zone
④&⑥	South Port Said & Un El Reesh	10	Bir EL Abd Zone
⑤	South Port Said		

Borrower / Executing Agency	Arab Republic of Egypt / Ministry of Public Works & Water Resources (MPWWR)
Exchange of Notes / Loan Agreement	November 1981 / March 1983
Loan Amount / Loan Disbursed Amount	· 4,600 million / · 4,463 million
Loan Conditions	Interest: 3.5%, Repayment period: 30 years (10 years for grace period), Partial untied
Final Disbursement Date	March 1991

2 Evaluation Results

(1) Project Implementation

(i) Project Scope

Of the irrigation plan aimed at farm land development around the El-Salam Canal, the project is to provide pumping stations and the related power transformation facilities. Both the pumping stations and power transformation facilities have been installed as planned, in general.

(ii) Implementation Schedule

As shown in the Comparison of Original Plan and Actual, the implementation schedule was delayed 6 years and 7 months. Reasons are: (1) Change in service contract (reselection of Egyptian companies out of the Japan-Egypt corporate consortium) and (2) Difficulty in execution due to geological conditions, particularly the weak ground. Of these reasons (2) can be considered inevitable, while (1) is considered, though indirectly, due to an insufficiency in price examination by the executing agency (MPWWR) during bid appraisal.

In addition, though it is not included in the scope of this project, the farm land development project that exerts great influence on this project has still not been completed as of May, 1998, far behind the originally planned completion of the end of 1991. The delay is mainly because of the time taking improvement of heavily salty soil there, and consequently the facilities procured by this project have not been used in full scale.

(iii) Project Cost

The project was executed as planned in respect to foreign currencies, while it was exceeded broadly in terms of local currency. Reasons are mainly additional measures required for improving the weak ground in pump installation, and inflationary effects accompanying the delay in implementation schedule.

Comparison of Original Plan and Actual

(1) Project Scope	Plan	Actual
(1) Pumping station		
Number of stations	3 points (No.1 No.2 No.3)	Same as planned
Planned effluence volume (m^3/s)	63.5 63.5 55.0	66 for each
Maximum pump head (m)	1.75 2.60 2.60	No.1 and No.3 are the same as planned, No.2 - 2.50
Number of pumps (spare)	5 (1) 5 (1) 5 (1)	Same as planned
(2) Power transformation facility		
Number of facilities	2 points	Same as planned
Capacity	10MVA and 20MVA	
Number of power transformation equipment	2 for each	
(2) Implementation Schedule		
(Start of detailed design ~ completion of construction for pumping station)	July 1981 ~ October 1984	July 1981 ~ May 1991
Time required	39 months	118 months
(3) Project Cost		
Foreign currency portion	· 4,600 million	· 4,463 million
Local currency portion	LE13,135 thousand	LE42,599 thousand
(Total)	(· 8,803 million)	(· 6,209 million)
Exchange rate	(At the time of appraisal) LE1 = · 320	(At the time of completion: end of June 1991) LE1 = · 41

(2) Organization of the Executing Agency (implementation and operation/maintenance after completion)

(i) Implementation Scheme

The executing agency of the project is MPWWR. In implementing the project, the contract method was applied — contractors were Egyptian companies (civil works and installation) and Japanese companies (supply of equipment and materials, including pumps, transforming equipment, etc.) of the Japan-Egypt corporate consortium — while the execution was monitored by MPWWR, employing no consultant. As described above, problems were seen in the bid stage but there were no special problems in the execution stage.

(ii) Operations and Maintenance

The operating rate of the pumps installed by the project has been staying low. This is mainly because the progress of related agricultural development is behind the schedule and there is only a small demand for water at the moment.

(3) Project Effects and Impacts

(i) This project was planned to irrigate an area of 83,000ha near waterways in order to raise agricultural productivity. However, the development of agricultural land has not been completed and therefore the anticipated project impact has not yet been realized.

(ii) As for the development of agricultural land by August 1997, the irrigated area reached 26,040ha (31%), the area where drainage channels were completed but not allocated to farmers were 39,630ha (46%) and 19,530ha (23%) were still under way for construction of drainage channels. The drainage channel construction was scheduled for completion within 1999.

(iii) The El Salaam channel is planned to carry water not only to the west bank but also to the east bank of the Suez Canal, in order to assist in the development of 168,000ha of agricultural land in that area, and some water distribution to the east bank has already begun. Combined with (ii) above, this development is expected to raise the operation rates of the pumps installed under this project.

3 Lessons Learned

Where an ODA loan is provided for one of a number of projects that combine to form an overall plan, the schedule for the portion covered by the loan must be set in a way that fits with the overall plan (if necessary, phased implementation should be considered) to ensure the project's effective application.

The development of agriculture related to this project has been delayed. Where JBIC provides a loan for one element of a large-scale development plan, the implementation schedule for the project as a whole should be considered when the schedule for the loan project is determined. In cases where the overall plan will be implemented over a long period, there may be some divergence between the schedules of the loan project and the overall plan. In order to avoid that kind of divergence, the situation should be considered flexibly, with the project being implemented in phases and the loan being disbursed in a way that accommodates phased procurement. However, it would have been difficult to respond that way in this particular case. For the time being it is important to closely monitor the construction of the drainage channels (scheduled for completion in 1999) and the demand for water pumping to the east bank of the Suez Canal, and watch for the realization of this project's impact.