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(5) ドラフトファイナルレポート	50 (35)
(6) ファイナルレポート	70 (35)

報告書は何れも英文で作成する。

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付-1 面会者一覧 (エ側主要面会者のみ)

	Name	Present Post
経協省	Saad Mohamed Bayoumi	Undersecretary
	Mistaffa	
	Hamid	General Manager
上下水道庁	Nazid	Engineer
シナルキア州庁	Mohamed Amin Metkis	Governor
	Mohamed Ibrahim El Tokhy	General Secretary
	Henry Fahmy	General Manager
	Ibrahim M. Hassan	Chief of Protocol Section
	Ahmed Kamel Mohamed	Manager of Water and Sanitary Section
	Farida Mohamed Koura	Member of Protocol Section
カイロ、ゼニン 処理場	Saleh S. Wanees	General Director
USAID Cairo Office	John C. Starnes P. E.	Environmental Engineer

付-2 エジプト国下水道事前調査入手資料リスト

1. Arab Republic of Egypt
National Commission for UNESCO
Sixth Year NOs 3, 4 Dec. 1983
"Periodical Bulletin Published by MAB National Committee in Collaboration
with The National Commission for UNESCO"
2. Appropriate Technology Report
"Wastewater Treatment and Excreta Disposal in Developing Countries"
by Werner Bannann
Hans Jurgen Karpe
(Institute of Environmental Protection University of Dortmund)
3. 「 Greater Cairo 下水道の概要 」
昭和 61 年 4 月 御東京設計事務所
4. "The policy proposed to ascertain the economical balance of water supply and
sanitary drainage organization"
by The Ministry of Housing
5. "South" april 1986
South Special Report
"Egypt - The heart of the Arab world"

付-3 エジプトシアルキア上水道整備計画調査団持ち帰り資料

番号	資料の名称	形態	版型
1	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 1 Report Summary	英文	
2	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 2 Existing Situation		
3	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 3 Future Development		
4	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 4 Organisation and Management		
5	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 5 Finance Tariffs and Implementation		
6	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Volume 6 Appendices to Volume 4		
7	ARAB REPUBLIC OF EGYPT WATER MASTER PLAN Water Quality		
8	WELL FIELDS		
9	GROUNWATER RESOURCES		
10	FIELD VISIT TO SHARQIYA		
11	SHARQIYA 地図	アラビア語	
12	" 1/100,000		
13	PROVINCIAL WATER SUPPLIES PROJECT FINAL REPORT Folio	英文	
14	調査団質問に対する回答		
16	Present-Condition of Water Supply		
17	ABBASA WATER STATION REPORT		
18	Data and Information Concerning Religions and Sociable Condition	アラビア語	
19	Diseases Carried by Potable Water	アラビア語 英文	
20	Population Projection up to 1982	アラビア語	
21	Administrative System For the Governorate		
22	Zagazig City Council		

№15欠番

番号	資料の名称	形態	版型
23	Housing Department	アラビア語	
24	Water Resources Irrigation	アラビア語	
25	Geological Data and Information	アラビア語	
26	Maps for Abbasa System	英文 アラビア語	
D1	Fagus Plant (ファークス浄水場) 1/200	英文 アラビア語	
D2	General Layout of Abbasa System 1/250,000		
1	Ibrahimiya City 1/2,500		
2	Mashtul El Souk		
3	Bilbeis 1/5,000		
4	Abu Hamad City 1/2,500		
5	Miniyet El Qmh 1/5,000		
6	Ibrahimiya 1/5,000		
7	Abu Kebir 1/2,500		
8	Diarb Nign City (East) 1/1,000		
9	Diarb Nign City (West) 1/1,000		
10	Bilbeis City 1/5,000		
11	Hihya City		
12	Mashtul El Souk 1/25,000		
13	Fagus 1/25,000		
14	Miniyet El Qmh (No 1) 1/1,000		
15	Miniyet El Qmh (No 2) 1/1,000	アラビア語	

付一 相手国政府要請書

ARAB REPUBLIC OF EGYPT

NATIONAL ORGANISATION FOR POTABLE WATER
AND SANITARY DRAINAGE (NOPWASD)

Your Ref.:

El Mogammaa Building
6th Floor
Tahrir Sq.
Cairo

Our Ref. : 144/5/84

Date : 24.5.1984

H. E. Mr. Yosuke Nakae

Ambassador

Embassy of Japan

Cairo - A.R.E.

Excellency

I have the honour to submit " Terms of reference for feasibility study and Engineering design services for Sharqiya sewerage project"

it will be very much appreciated if your excellency will treat it as the final terms of reference .

Looking forward to receiving your attention soon, Please accept, your excellency, the assurance of my highest consideration .

Sincerely Yours

Ali Jarm
~~Under Secretary of States for Research and Studies~~

Under secretary of states for Research and studies NOPWASD.

received

22/5/1984

O. Halaoui
First Secretary
Embassy of Japan

Sharqiya Sewerage Project
Terms of Reference for Feasibility
Study and Engineering Design Services

1. Introduction:

1.1- The Government of Egypt has recognised the fact that urgent action must be taken to extend and improve potable water supply systems and sanitary services in most parts of the country. First priority is now attached to this matter, and a series of feasibility studies and engineering design services were or have been carried out for many Governorates, to identify and prepare project for implementation. An agreement with the Japanese Government was concluded in 1983 to carry out the feasibility study for the water supply services in the Governorate of Sharqiya. The study is now taking place and the final report is expected in 1984. The Egyptian Government believes that coordination and synchronism between water supply and sewerage activities should be existing to avoid many serious health and social hazards which may result from back of phasing between the two activities. Thus the Egyptian Government is kindly asking the Japanese Government to participate in solving the sewerage problem in Sharqiya, which may otherwise be augmented when the water supply project now under preparation is implemented. A feasibility study and engineering design services for the sewerage system in Sharqiya is badly needed, in accordance with the following terms of reference :

2. Present status of water supply and sewerage systems in the Sharqiya Governorate

2.1- Water Supply

The ongoing feasibility study financed by JICA and sponsored by NOPWASD and Sharqiya Governorate, will be the source of more detailed and accurate assessment of water supply system.

status in the Governorate, together with the full identification of short and long term projects planned to be implemented in the area.

Until the final report of that study is available, the following is a brief and approximate assessment the water supply systems in the Governorate:

The Shariya Governorate, which is situated in the north-east Delta Region, consists of 12 cities or towns, which include the new 10th Ramadan City. The present population in the governorate is approximately 2.6 million. The population in the governorate is 4.3 million by the year 2000.

The relative location of the Sharqiya Governorate and its administrative areas are shown in figure-1 and 2, respectively.

The northern half of governorate is in an area of saline ground water, while the southern half is in an area of fresh ground water. A single regional supply system, based on the NOPWSD water works at Abbasia, extends over approximately 75 pct of the governorate operatin in conjunction with local ground water sources in much of the southern and western portions. There are two additional surface water municipal plants (at Zagazig and Faqus), nine municipal ground water works and 91 rural ground water supply systems throughout the governorate. Water supplies for the new 10th Ramadans city will be taken from the Ismailis Canal near Billbeis. Extensions to the water supply systems of Zagaziq, Billbeis and three other municipal schemes are currently underway, but when these extension are complete, the governorate will remain seriously short in terms of their source works capacity, both in the urban and rural areas.

The existing NOPWSD works at Abbasa was constructed in 1959 and appears to be well run and in comparatively good condition. With some remedial work it can be expected to remain in operation at least to the year 2000. The municipal plants at Zagazig and Faqus rely on abstraction of surface water. Both are very old and cannot be expected to operate over a long period of time, without major reconstruction. Conditions at the remaining plants (All relying on ground water abstraction) vary, according to the location ranging from good ^{to} very poor.

2.2- Sewerage systems

Following is a brief explanation of the present status of water treatment facilities and prospects for development, in terms of population figures quantities of sewage generated for major cities in the Sharqiya Governorate.

a) Zaqazig City

This city has a current population of 230,000 and a projected population of 420,000 by the year 2000. The present flow of wastewater is estimated to be 60,000 M³ per day (as of 1980). The total capacity of the current sewage project is approximately 35,000 M³ per day.

To treat the present flow of 60,000 M³ per day, and to accommodate an increased capacity of 125,000 M³ per day by the year 2000 the current project will have to be expanded. The required expansion will entail extension of the present sewage facilities to new geographical areas and installation of a new lift-type pumping station with accompanying pipe lines.

A plan for a new city sewage treatment plant, designed to accommodate 100,000 M³ per day, has been developed by a local consultant.

b) Belbis City

As this locality, there is currently a project to meet the city's needs and decrease the underground water table. This project has been in operation since 1965. The present population of Belbis is 81,000. The population is expected to reach 140,000 by the year 2000.

To meet the current need of 16,000 M³ per day and provide for an increased requirement of 35,000 M³ per day by the year 2000, the present process of decreasing the underground water level, must be discontinued in favour of a conventional sewage treatment project.

The project envisaged will include installation of Gravity type pipelines, lift-type pumping stations, renewal of existing lines and a new plant for the complete treatment of waste water.

The ground water quality itself is said to be poor at some plants but the general impression of ground water in the southern and western portions of the governorate was that it is satisfactory of quality and quantity.

Services provided to the rural areas vary considerably, according to location. Most areas relying on local ground water and those which are close the Abbasa works are reasonably served, but the more remote northern markazes of Kafr Saqr and Huseinya receive poor services. At these locations, water is sometimes available only at night.

The situation will continue to deteriorate rapidly unless new source works are commissioned, leakage and waste is reduced, and the regional networks is strengthened to permit more water to reach the northern part of the service area.

System pressures in this system ever fills to capacity.

The major problems associated with urban water supplies appear to be inadequate water source capacities. Low system water pressures, lack of usable elevated storage area, and (in several towns) antiquated, reticulation systems of low capacity.

Some towns using local ground water are also connected to the Abbasa regional network, they generally do not draw on this system, except in an emergency. Most towns operate a 24-hours-supply but some, particularly Kafr Saqr and other towns relying totally on the Abbasa system for their water, fail often to supply water and have frequent long periods of suspension.

Further development of watersupplies in Sharqiya could be based on increases in source work capacities in the Abbasa system (with corresponding increase in distribution system capacities) and the further development of ground water.

Supplies to the north and east must be improved, where necessary, by the construction of source works sited nearer to the area of greatest shortage. The re-opening of well sources, which were closed in the southwestern portion of the governorate when the Abbasa system was commissioned, may help to improve the overall situation, particularly on a short term basis.

c) Abu Kebir City

This city has a current population of 65,000 and a projected population of 120,000 by the year 2000. To meet the present need of 13,000 M³ per day and a future requirement of 28,000 M³ per day by the year 2000, a sewage project must be implemented. This project would entail gravity type pipe nets, a discharge pipe line, lift-type stations and a sewage treatment plant.

d) Fakous City

The Fakous City area has a current population of 50,000 and projected population of 80,000 by the year 2000. To meet the City's current need of 11,300 M³ per day and satisfy its future requirement of 20,000 M³ per day by the year 2000, a sewage project must be implemented. The required project would entail the installation of static-flow pipelines, lift-type stations, a discharge pipeline and a sewage treatment plant.

e) Menia El Kamh City

In this area, a project was implemented in 1962 to decrease the underground water table. This should be converted to a conventional sewage project.

The city's population is presently 40,000 and is expected to reach 70,000 by the year 2000. To meet the city's current needs for wastewater treatment, the proposed project should have a capacity of 8000 M³ per day. To meet the city's anticipated needs, planned future projects should have a capacity of 18,000 M³ per day by the year 2000.

The project planned to meet the city's current needs will entail installation of gravity type nets, new lift-type stations, discharge pipelines and sewage treatment plant.

3. Objects

The objective of this study and engineering services is to define the feasible works and activities to develop the sewerage services in the Governorate of Sharqiya. This will be carried out in two phases :

Phase 1: Feasibility Study

The study will identify :

- priority of requirements for the execution of work for sewerage contracts within the Governorate.
- a development programme to satisfy the long-term requirements to the year 2005 in the Governorate .
- within the foregoing, a Project with detailed programme and costs up until the year 1995.

The conclusions and the recommendations of the study will be the basis for immediate action in the second phase regarding the construction of new facilities for wastewater collection treatment and disposal.

Phase 2: Engineering Services

The Engineering services will include :

- preparation of detailed specifications and turnkey contract documents for the civil works required for the implementation of the project ;
- submission of designs and detailed proposals for imported equipment ;
- appraisal of the civil works tenders.

The consultant shall review the current situation and future requirements in respect of water and sewerage in the Governorate and shall further continue the work in order to identify the requirements for a subsequent Sewerage Project.

Following final agreement and acceptance of the findings of the Phase 1 Study, it is intended that NOPWASD will implement the Project in Phase 2 when the consultant will be given the opportunity to offer for the Phase 2 Engineering Services.

4. MANAGERIAL ELEMENT AND BENEFITS OF THE PROJECT

It is a necessary requirement of the Egyptian Provincial Water Supply Project that the Study includes a review of the Managerial and financial aspects of the Sharqiya Water and Sewerage Project and accordingly these aspects shall be included in the Study which shall clearly set out to NOPWASD in economic terms the benefits which will accrue to the Governorate following implementation of the Project, and will set out recommendations in broad terms a scheme for the future organization and Management required in the Governorate within the framework envisaged by the Provincial Water Supplies Study and the current NOPWASD policies.

5. SCOPE OF WORK

- 5.1- The consultant shall collect data, review and update all available previous studies and investigations into the various aspects of the water supply and sewerage of the Governorate. These shall include Studies by the World Bank, Binnie Taylor Egypt, USAID, the Governorate and various other agencies.
- 5.2- They shall include detailed fieldwork and researches of the existing situation to determine for all urban and rural areas:
- the nature and characteristics of the existing public water supply and sewerage systems and the capacities, operating characteristics and condition of all components;
 - population density and distribution surveys, water consumption and wastewater production ;
 - commercial and industrial concerns, their requirements and impacts on the current situation ;
 - water system leakage and consumer wastage ;
 - the sewerage disposal methods employed and their effect on public health ;

- the existing plans and commitments for development of the water supply and Sewerage systems.

5.3- Data collection shall include :

- hydrological, meteorological, geological topographical and waste water qualitative data and maps ;
- socio-economic data such as current costs, price levels, land values and the like ;
- quality data relating to domestic and industrial discharges, sources of supply, etc;
- health statistics ;
- other related data.

5.4- Following the field work and data collection the consultant shall study their findings formulate and report on a development programme.

The development programme shall present comprehensive proposals for the staged development of urban sewerage in all cities and for rural sanitation to meet the needs until 2005.

The studies and reports shall be such as to enable NOPWASD to use the proceeds of the financial agreement and if required to seek further financial assistance for the project which is to be designed to overcome the present system deficiencies and to satisfy the anticipated potable water demand and urban sewerage and rural sanitation need, to the year 1995.

6. Study Tasks Urban & Rural Sewerage

6.1- Review and Evaluation of Existing Urban Sewerage Systems

The consultant shall determine the adequacy of the existing facilities in terms of capacity, quality of services, reliability and other appropriate criteria.

In this regard the consultant will appraise the components of the existing facilities, including in particular:

- (a) The amount and characteristics of wastewater generated. The consultant shall assess the quantities and the characteristics of wastewater generated in each of the cities suitably divided into service areas, and the amounts disposed of.
- (b) The efficiency of existing on-site facilities in disposing of and treating wastewater ;
- (c) The length, size, location and soundness of the pipes in existing sewer and groundwater lowering systems.
- (d) Existing sewage treatment processes.
- (e) The effect of the wastewater discharges on surface sources of water bodies, taking into account other sources of water pollution.
- (f) On-going construction programmes to expand urban sewerage in the Project Area. In formulating proposals the consultant shall consider these construction activities to maximize their use, unless substantial cost savings can be demonstrated to do otherwise.

6.2- Modes of Wastewater Disposal

The consultant shall determine, for each of the four cities' areas which can be served by on-site facilities and areas which are to be sewered. The latter group shall be further divided into areas which are required to be sewered immediately and areas which are required to be sewered in the future factors to be taken into account in this determination shall include :

- (a) capital and operating costs ;
- (b) costs of wastewater treatment and sludge disposal ;
- (c) population density ;
- (d) soil characteristics ;
- (e) type of water supply service ;
- (f) potential for groundwater contamination ;
- (g) extent of groundwater use ;

and others which may be considered to be relevant.

Where sewerage is found to be required alternate methods of sewerage shall be studied. The appropriate method of wastewater treatment shall be determined with due consideration given to :

- (a) degree of treatment required as governed by the economic and social impact on downstream users ;
- (b) costs ;
- (c) reliability ;
- (d) operation ;

and others factors which may be relevant.

6.3- Determination of Wastewater Flows

Wastewater flows shall be determined from the projected water demands with due allowance for used water which does not enter the sewer system and groundwater infiltration.

6.4- Rural Sanitation

The consultant shall gather general information on the methods of excreta and wastewater disposal and sanitary conditions in the rest of the Governorate. A study shall be conducted on the adequacy of methods adopted, together with an assessment of any environmental impact resulting from present excreta and wastewater disposal methods.

The consultant shall prepare outline proposals on appropriate and cost-effective means and feasibility for sanitation in these areas, taking into account the affordability of the

population served, availability of water supply, and the habits and customs of the people.

7. PROPOSED DEVELOPMENT PROGRAMME - 2005

7.1- The consultant shall prepare a development programme for urban sewerage and rural sanitation needs to the year 2005 on sufficient detail to serve as the framework for the preparation of the project and to demonstrate its appropriateness.

The programme shall be based on the projections of needs and demands on expected service levels and on the assumption that the NOPWASD national policies for management and financial control of water and sewerage will be implemented.

- (a) The consultant shall consider alternatives for modes of wastewater disposal, methods of sewerage and excreta disposal, and capacity of sewers, which in the aggregate will be able to serve the Project Area. Each element and alternative shall be described in sufficient detail to permit evaluation.
- (b) The consultant shall recommend a development programme based on an evaluation of least cost, environmental effects, and suitability for staging of the various packages of alternative system elements. Estimates shall be made of required foreign currency costs, and of operating and maintenance expenses. The cost estimates of the various elements shall be of such accuracy and detail as to permit evaluation of alternatives with confidence and to enable NOPWASD to make investment decisions and overall programme appraisals.

8. PROPOSED SEWERAGE PROJECT - 1995

8.1- The consultant shall develop a proposed urban sewerage project designed to meet the demand in the Project Area to the year 1995.

The consultant shall perform all necessary studies for the formulation of the project regardless of whether or not these studies are mentioned in the Terms of Reference.

The project shall represent a staged 1995 programme of capital improvement and other proposals consistent with the long-term programme.

The feasibility study and report shall include the following:

(i) Technical

- (a) justification of the scope of the project in relation to present needs or future development of the community served;
- (b) design objectives, criteria, standards and specifications of new or rehabilitated facilities and equipment in relation to the existing system and the quality and level of service to be provided;
- (c) principal engineering features of the project as to type, capacity and characteristics of major facilities or units, relationship to existing and future service requirement;
- (d) preliminary investigations and surveys sufficient to identify the significant technical problems, establish location and fix general criteria and standards;
- (e) justification of the criteria, standard, location and extent of the facilities proposed as compared with other available alternatives;
- (f) conceptual designs and outline plans for all proposed sewerage facilities, sufficiently complete to provide a basis for reasonably firm estimates of quantities and costs.
Preliminary engineering should be sufficient to assure that all foreseeable costly and time-consuming factors, which may occur in the course of final design, have been eliminated; and that all related administrative and legal requirements can be met;

- (g) The consultant shall include the elements of the on-going improvement programs and maximization of the usefulness of the latter.

(ii) Environmental

All significant effects on environmental health, amenity, of soil productivity and other aspects necessary to demonstrate environmental soundness shall be considered.

(iii) Economic and Financial

All studies for the selection of alternatives shall be based on least cost analyses using present worth comparisons.

8.2 Implementation Programme

The consultant shall set out, in respect of the recommended schemes:

- (i) Description of proposed method of project execution including organisation aspects, engineering, equipment procurement, general contracting for construction and erection, supervision of construction, testing and commissioning of facilities.
- (ii) Preliminary project schedules (bar charts or other diagram) indicating time requirements for final planning, design engineering procurement, construction, erection, testing and commissioning of facilities.
- (iii) Review of related manpower requirements including supervisory, technical and skilled labour needed for project execution.
- (iv) Availability of requisite construction/erection contracting services, construction materials, construction and erection equipment in the quantity and quality required.
- (v) Review of any special problems foreseen relative to the execution of the project in accordance with the proposed schedule.

8.3 Cost Estimates

For the recommended schemes, the consultant shall prepare:

- (i) Estimates of total capital costs, distinguishing foreign and local, analyzed as to:
 - (a) land acquisition;
 - (b) equipment and civil works for each major project component (treatment works, pumping stations, transmission and sewers, etc.);

- (c) engineering services;
 - (d) equipment;
 - (e) vehicles;
 - (f) meters;
 - (g) physical contingencies and price escalation.
- (ii) An expenditure schedule analyzing the total project cost by years of expenditure.
- (iii) Estimates of annual cost of maintenance and operation, including supervision, administration and labour, supplies, power, spare parts, and replacements - broken down between local and foreign currency costs.

9. MANAGEMENT AND FINANCIAL STUDIES

The objectives of this element of the study have already been set out for other similar areas and governorates. The consultant shall adopt these to:

- (i) recommend the appropriate institution form for providing sewerage services in the Project Area;
- (ii) define the organizational structure of the proposed institutions and establish their financial policies and objectives;
- (iii) assist in the establishment of the recommended institutions as agreed by the Government;
- (iv) develop systems and procedures for managerial, administrative and financial functioning of the proposed institutions; and
- (v) assist in the start-up of operation of the newly created institutions and in the implementation of agreed systems and procedures.

To this effect the consultant are not expected to provide a comprehensive management study but they shall, in consultation with NOPWASD provide such data and prepare financial statements and consolidated accounts as will enable NOPWASD to set up the appropriate institutional organisations for the management and control of the Governorate Sewerage services:

The consultant shall include at least 6 man months of experienced Managerial and Accounting services to this end during the Study period and shall include in their study findings recommendations as to the most suitable means of applying the National policy in Sharqiya.

10. PHASE 2: FINAL ENGINEERING DESIGN AND CONTRACT DOCUMENTS

10.1 Following final acceptance by NOPWASD of the recommendations of the Phase 1 study the consultant shall if requested by NOPWASD prepare the necessary final designs and contract documents for the 1995 Project. The precise nature of the work will be determined in the first Phase of the project. The general nature of the work is expected to be outlined:

(a) Sewer Collection and Truck Systems:

- prepare detailed design to determine location, number, size and lengths of sewer connections, collection and trunk sewers, force mains, manholes and pumping stations;
- prepare specifications for force main and pumping plant supply;
- prepare documents for procurement of force main and pumping equipment, associated contracts for construction of sewers, sewer connections and pumping stations.

(b) New Sewage Treatment Plants:

- design sewage treatment process for treatment plants at different locations to produce an effluent that will be environmentally acceptable taking into account the social and economic impacts to downstream water users, including conducting of field studies and exploratory tests required;

(c) Assistance to NOPWASD in Tendering the civil engineering contracts and appraisal of offers received.

(d) Formulating recommendations (with costs) for the supervision of construction and commissioning maintenance and training and management of the Project Works.

10.2 Requirements for Financing

The contract Documents shall be prepared so that they will meet the requirements for funding by NOPWASD or if necessary by other international financing agencies in addition to funds from the Japanese Government from which financing assistance may be sought by the Egyptian Government. The consultant will be advised as to the sources of such funding.

11. LENGTH OF STUDY REPORTS AND PRESENTATION

11.1 General

The Phase 1 study is to be completed within 9 months from the date of starting work.

The schedule of reports is given in Section 11.3. The consultant is also encouraged to submit Interim Action Reports as described herein.

In order to expedite progress of the study the consultant is encouraged to use Interim Action Reports and informal consultation with NOPWASD and

others, to secure guidance and preliminary approval of specific work procedures, proposals, or policies. All reports and communications are to be addressed to the NOPWASD, who will provide all official comments.

11.2 Monthly Reports

In order to keep all concerned informed of progress and problems the consultant will submit a brief letter type monthly report.

11.3 Preliminary Reports

The consultant shall submit 20 copies of the following Preliminary Reports:

- (i) Preliminary Report on the project development in the project area within four months from the Starting Date.
- (ii) Preliminary Report on the preliminary design for the project within six months from the Starting Date.
- (iii) Preliminary outline Report on the institutional proposals concentrating on the recommendations dealing with organisation and management structure and financial structures within three months from the Starting Date.

The Reports shall include at least:

- (i) description of the various surveys, investigations, studies, collection of data, and evaluations performed and/or underway, and findings therefrom;
- (ii) recommend population and demand projections, levels of service and implicit design criteria and standards, changes in management, organisation, finance;
- (iii) description of the results of investigations and recommendations for immediate improvement of the existing institutions and facilities; and
- (iv) a comprehensive statement on fundamental findings and approach the consultant proposes to follow in developing and completing the remainder of the Study.

The intention of these Reports is to assist the consultant enabling him to submit preliminary findings and recommendations for early review and approval. For the four Preliminary Reports, the consultant will receive official comments for appropriate action within one month of submittal.

Draft Final Reports

The consultant shall submit 20 copies of the following draft final reports for review by appropriate officials:

- (i) draft final report on the engineering work within 8 1/2 months from the Starting Date;
- (ii) draft final report on organisation and management within 7 months from the Starting Date.

11.4 Final Reports

On receipt of all comments, views and suggestions within the stipulated period the consultant will complete and deliver 30 copies of the Final Reports in not more than six weeks.

11.5 Interim Action Report

The consultant is encouraged to submit Interim Action Reports, covering completed studies for investigations of the main items of work, proposed courses of action, problems, requests, or other items, for advance review and approval. These Reports are intended to assist the consultant by enabling him to submit recommendations for early approval, thereby permitting the subsequent interrelated tasks to proceed expeditiously.

11.6 Format of Reports

Preliminary, Interim Action, Draft Final, and Final Reports shall be where possible A4 size, simply bound, and have soft covers. The title of the report and name of NOPWASD shall be printed on the cover.

11.7 Reviews, Comments and Approvals

In general, NOPWASD will review the reports as they are submitted, secure reviews from others, and provide written comments within the time periods specified. Should the reports or parts thereof be disapproved, NOPWASD will furnish the reasons for such disapproval. The consultant shall immediately proceed to revise, restudy, modify, edit, or use any other reasonable methods needed to produce a report that is acceptable.

11.8 Presentations

The consultant will be expected to make oral presentations on the results of studies and recommendations of the Final Reports at meetings to be attended by appropriate officials of the Government of the A.R.E.

11.9 Arabic Translations

The consultant shall prepare and submit Arabic summaries of all approved Preliminary and Final Reports.

12 GENERAL CONDITIONS

12.1 Consultant personnel

The consultant shall provide competent, qualified and experienced personnel, and shall be solely responsible for the management, coordination and efficient execution of the services described in these Terms of Reference.

The professional and professional-level personnel to be assigned to the work may be those of the consultant or from a suitable associated consulting firm. All personnel shall be subject to approval by NOPWASD. No employee of any Egyptian governmental organisation directly involved with this project may be employed by the consultant.

It is intended that the bulk of the Phase 1 and Phase 2 work will be performed in Egypt.

12.2 Services, Supplies and Transportation

The consultant shall provide their own office(s), vehicles, equipment, personnel, materials, supplies and supporting services except as noted hereinafter.

12.3 Language

All studies, reports, designs, contract documents, etc. shall be submitted in English (and Arabic) as indicated.

12.4 Weights and Measures

All weights and measures, computations, computer programmes and preparation of plans and drawings shall utilize the metric system of measurement.

12.5 Taxes

All sub-consultance fees paid by The consultant will be exempt from Egyptian taxes in accordance with the provisions of special decrees enacted in Law 62 of 1974 and in Law 113 of 1975. The salaries of expatriate (non-Egyptian) staff working in Egypt, which are paid outside of Egypt, and their per diem or living allowances paid in Egypt will be exempt from Egyptian taxes.

12.6 Customs Duties

Equipment and supplies imported into Egypt by the consultant on a temporary residence basis shall be exempted from customs duties. NOPWASD will assume responsibility for any customs duties that may be imposed on laboratory, sampling, or any special equipment imported by the consultant on behalf of NOPWASD for the performance of the work.

The consultant shall be responsible for the clearance of his equipment and supplies through customs. NOPWASD will use its good offices to assist in expediting such clearances when required.

Personal effects of expatriate staff brought into Egypt on a temporary basis which are to be re-exported at the time of repatriation of personnel will also be free of customs duties.

Re-export of all equipment and personnel effects will be one of the conditions to be satisfied as part of the agreement.

12.7 Data, Services and Facilities to be furnished by NOPWASD

Data, services and facilities to be provided or otherwise facilitated by NOPWASD and the consultant responsibilities in this respect are described below. Additional services and/or facilities which may be provided by the Government will be discussed at the time of finalisation of the agreement.

12.8 Available Data, Translations

Where required, NOPWASD will use its good offices to assist the consultant in obtaining copies of available documents, reports, and data; however, it shall be the consultant's responsibility to ascertain what data are relevant, to initiate any requests, inquiries and investigations required to obtain these data, and to obtain complementary data where needed.

The consultant shall be responsible for the translation of any data or material necessary to fulfill the services required.

12.9 Services to be Provided by NOPWASD and other concerned Authorities

(a) Liaison Officer

A Liaison Officer in NOPWASD and Liaison Officers from other governmental organisations directly involved will be designated to facilitate the work within NOPWASD and with other concerned governmental agencies throughout the duration of the project. Request for obtaining various data from their governmental organisations, arrangements for interviews or consultations with government officials or employees, requests for travel permits to restricted areas, and coordination in gaining access to the facilities and other private property to conduct surveys and investigations etc, will be expedited by the delegated Liaison Officer(s).

SCOPE OF WORK (DRAFT)
FOR
FEASIBILITY STUDY
ON
SHARQIYA SEWERAGE SYSTEM
IN
THE ARAB REPUBLIC OF EGYPT

AGREED UPON BETWEEN
THE NATIONAL ORGANIZATION FOR POTABLE WATER
AND SANITARY DRAINAGE
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

MARCH, 1986
ISSUED IN CAIRO

MR.
CHAIRMAN,
NATIONAL ORGANIZATION FOR POTABLE
WATER AND SANITARY DRAINAGE

MR. DAIGO MATSUI
LEADER OF THE PRELIMINARY
SURVEY TEAM, JAPAN INTERNATIONAL
COOPERATION AGENCY

SCOPE OF WORK
FOR
FEASIBILITY STUDY
ON
SHARQIYA SEWERAGE SYSTEM
IN
THE ARAB REPUBLIC OF EGYPT

I. INTRODUCTION

In response to the request of the Government of the Arab Republic of Egypt, the Government of Japan has decided to conduct a feasibility study on Sharqiya Sewerage System in the Arab Republic of Egypt (hereinafter referred to as "the Study"), in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Egypt signed on June 15, 1983, (hereinafter referred to as "the Agreement").

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the Governorate of Sharqiya (hereinafter referred to as "Governorate"), as well as other authorities concerned of the Government of Egypt.

The present document sets forth the Scope of Work with regard to the above mentioned Study.

II. OBJECTIVE OF THE STUDY

The objective of the Study is to prepare an appropriate plan from the view point of technical, economic, and social feasibility, to contribute to the development of Sharqiya Sewerage System.

The plan consists of the following items;

1. To formulate a long-term programme as basic concept of sanitary development of Sharqiya Governorate up to year 2005, and identify a first priority project up until 1995. (Phase I Study)

2. To carry out a feasibility study for the 1st priority project identified in the long-term programme. (Phase II Study)

III. SCOPE OF THE STUDY

1. Study Area

- (1) The Study area of the Phase I Study will cover Sharqiya Governorate, however, 10th of Ramadan area will be excluded.
- (2) The Study area of the Phase II Study will be selected from the result of the Phase I Study.

2. Contents of the Study

The Study will be composed of field surveys and data collection in Egypt and of analysis works in both Egypt and Japan.

(1) Phase I Study; Preparation of long-term programme

1. Data collection and analysis

- a. population
 - b. land use
 - c. city development plan
 - d. natural condition (topographical, meteorological and hydrological data)
 - e. soil and geological condition
 - f. water use and waste water quantity and quality
 - g. sewerage and related facilities
 - h. present sanitary condition
 - i. institution and financial condition
 - j. previous studies (Provincial Water Supplies Project, JICA Study on Sharqiya Water Supply System, etc.)
 - k. others
- cf. In this item, collected data in preceding Study and other available data in Egypt will be used.

2. Study of present status of sewerage and sanitary condition based on above data

3. Definition of planning criteria

- a. target year (2005)
- b. definition of planning area
- c. conformity with JICA Study on Sharqiya Water Supply System

4. Formulation of a long-term programme

- a. required new facilities
- b. rehabilitation of existing facilities
- c. night soil management in rural area
- d. economic, financial and social analysis
- e. organization and institution (including manpower development plan)
- f. implementation plan

5. Identification of the first priority urban sewerage project - 1995

(2) Phase II Study; Execution of Feasibility Study

1. Identification of scope for the proposed project

2. Ground survey

- a. water and waste water quality survey
- b. topographic survey for proposed facility

3. Facility planning

- a. design criteria
- b. examination of alternatives
- c. new sewerage facility
- d. rehabilitation of existing facilities
- e. preliminary design
- f. cost estimation
- g. procurement planning of construction materials and estimation of manpower requirement

4. Institutional and organizational planning

- a. appropriate institution form
- b. organization of the institution
- c. user charge system

5. Project evaluation

- a. financial evaluation (least cost analysis)
- b. economic evaluation
- c. environmental and social evaluation

6. Implementation program

- a. implementation schedule
- b. disbursement schedule

IV. STUDY SCHEDULE

The whole Study will be conducted in accordance with the attached tentative schedule.

v. REPORTS

JICA will prepare and submit the following reports in English to the Government of Egypt in the course of the Study

1. Inception Report, 35 copies,
at the beginning of the field survey of Phase I Study
2. Progress Report (I), 35 copies,
at the end of the field survey of Phase I Study
3. Interim Report, 35 copies,
within three (3) months after completion of the field survey of Phase I Study

Governorate will provide JICA with their comments within one (1) month after receipt of the Interim Report.

4. Progress Report (II), 35 copies,
at the end of the field survey of Phase II Study
5. Draft Final Report, 35 copies,
within three (3) months after completion of the field survey of Phase II Study

Governorate will provide JICA with their comments within one (1) month after receipt of the Draft Final Report.

6. Final Report, 50 copies,
within one (1) month after receipt of the comments on the Draft Final Report

VI. UNDERTAKING OF THE GOVERNMENT OF EGYPT

The Government of Egypt shall accord privileges, immunities and other benefits to the Japanese Study Team, and take necessary measures, in line with the Agreement, through the authorities concerned.

1. To facilitate smooth conduct of the Study, the Government of Egypt shall take necessary measures:
 - (1) to secure the safety of the Study team,
 - (2) to permit the members of the Study team to enter, leave and sojourn in Egypt for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees,
 - (3) to exempt the members of the Study team, from taxes, duties and any other charges on equipment, machinery and other materials brought into Egypt for the conduct of the Study,
 - (4) to exempt the members of the Study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Study team for their services in connection with the implementation of the Study,
 - (5) to provide necessary facilities to the Study team for the remittances as well as utilization of the funds introduced into Egypt from Japan in connection with the implementation of the Study,
 - (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study,
 - (7) to secure permission to take all data and documents (including photographs) related to the Study out of Egypt to Japan by the Team,
 - (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Study team.
2. The Government of Egypt shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.

3. Governorate shall act as counterpart agency to the Team and also as coordinating body in relation with other organization concerned for the smooth implementation of the Study.
4. Governorate shall, at its own expense, and in cooperation with other agencies concerned, if necessary, provide the Team with the following:
 - (1) available data and information related to the Study
 - (2) counterpart personnel
 - (3) non-technical support personnel
 - (4) suitable office space with necessary equipment in Sharqiya
 - (5) credentials of identification cards

VII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. to dispatch, at its own expense, the Team to Egypt
2. to pursue technology transfer to the Egyptian counterpart personnel in the course of the Study
3. to provide the necessary equipment and machinery for the implementation of the Study, which will be the property of the Government of Japan unless otherwise agreed upon.






VIII. CONSULTATION

JICA and the Government of Egypt shall consult with each other in respect of any matter that may arise from or in connection with the Study.

APPENDIX

TENTATIVE SCHEDULE

Months No. Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Preparation of Field Survey																
Field Survey (Phase I)																
Home Work																
Explanation of Interim Report																
Field Survey (Phase II)																
Home Work																
Explanation of Draft Final Rep.																
Home Work																
Presentation of Final Report																

-  : Preparation of Study
-  : Field Survey or Exp. of Reports
-  : Analysis of Field Survey (Home Work)
-  : Reports
-  : Comments of Reports

QUESTIONNAIRE

to the National Organization for Potable Water and Sanitary
Drainage (NOPWASD)

April 1986

JICA Preliminary Survey Team

In order to understand sufficiently the background of,
and respond efficiently and effectively to the request
144/5/84 made by NOPWASD about the execution of "The
Feasibility Study on Sharqiya Sewerage System", the Team
would appreciate very much if NOPWASD and other
organizations concerned could make clear the following
points which are not necessarily explicit in the Terms of
Reference of the Study submitted to the Government of Japan:

1. Please give us the following information about the

background of the request:

- (1) Deficiencies of the existing urban and rural sanitation
in Sharqiya Governorate (operational, administrative,
financial and planning);
- (2) Health statistics which show the urgent need for the
improvement of urban and rural sanitation in Sharqiya
Governorate;
- (3) Updated implementation schedule of the project
identified by JICA's Feasibility Study on Sharqiya
Water Supply System;

- (4) Urban sewerage projects for Beheira and Kafr El Sheikh Governorates where the World Bank carried out feasibility studies on water supply systems;
- (5) Priority given by and strategy set by NOPWASD and Ministry of Planning and International Cooperation for the urban sewerage system improvement in Egypt, especially in Sharqiya Governorate; and
- (6) Readiness of concerned organizations for the preparation and implementation of the Sharqiya Sewerage System improvement project.

2. Please make clear the Terms of Reference about the following basic points:

- (1) Minimum service level (urban and rural sanitation) to be achieved by the year 1995 and 2005;
e.g. Goals set by the national plans of "Safe Drinking Water and Sanitation for All in 1990" and of "Health for All in 2000".
- (2) Study area to be covered by the Development Programme-2005; and

3. Please make clear how NOPWASD will implement the Project, once it is prepared, involving the other organizations concerned (Sharqiya Governorate, Ministry of Planning and International Cooperation, etc.) and acquiring the necessary funds.

4. Please give us the following information which will serve as a basis for the Study:

- (1) List of all previous studies and investigations to be reviewed and updated in the Study and a copy of each study;
- (2) List of qualified laboratories (for water and wastewater analysis) and surveying companies, their availability and service fee;
- (3) Available sources (e.g. rain gauge stations) of meteorological data;
- (4) Available sources of surface water and ground water data such as water quantity, quality and level;
- (5) Available sources of geological and topographical data;
- (6) Available information sources of underground pipelines (e.g. water pipe and sewer);
- (7) Available sources of topographical maps and aerial photographs of the Study area;
- (8) Available information sources of existing land use and future land use plan (land use, road network, open drain network, main buildings, etc.) for the Study area;
- (9) Existing irrigation system and its improvement plan to be used as a basis for the Study;
- (10) Existing water quantity and quality data (canal water, ground water, influent and effluent of treatment plants, etc.);
- (11) Present use of saline ground water in the northern half of Sharqiya Governorate;

(12) National and regional development plans to be used as a basis for the Study.

5. Please make clear the national urban and rural sanitation plan and policy including the following information:

- (1) Laws, regulations and guidelines related to sewerage system;
 - a. design criteria, standard of materials and effluent standard
 - b. guideline for operation & maintenance
 - c. standard method of water and wastewater analysis
- (2) Laws, regulations and guidelines related to non-sewerage sanitation;
- (3) Laws, regulations and guidelines related to water pollution control and aquatic environment conservation;
- (4) Organizations concerned with urban sanitation, rural sanitation, sewerage system and non-sewerage sanitation, and their interrelations and coordinations;
- (5) National plans of "Safe Drinking Water and Sanitation for All in 1990" and of "Health for All in 2000";
- (6) Labour conditions, labour cost and labour policy;
- (7) Capacity of local industries concerned and policy on the use of local materials and equipment;
- (8) Public health education and communal participation programme;
- (9) Human resource development programme; and
- (10) R&D of appropriate technologies.

6. Please give us the following information about the existing urban and rural sanitation in Sharqiya Governorate:

(1) Existing urban sewerage systems;

- a. Organizations
- b. Wastewater quantity and quality
- c. Inventory and capacity of facilities
- d. Personnel and labour cost
- e. Electricity consumption and electricity cost
- f. Financial condition and user charge system
- g. Existing plan for future expansion and on-going construction programmes

(2) Existing non-sewerage sanitation in urban area;

(3) Existing sanitation in rural area; and

(4) List of major factories, quantity and quality of their wastewater, and their treatment facilities.

7. Please specify the economic, social, religious and other special conditions to be considered in the study area, if any.

8. Other comments on the Study to be carried out by JICA, if any.

Note: JICA will use to the maximum the information already collected through the Feasibility Study on Sharqiya Water Supply System and the Feasibility Study on El-Arish Sewerage and Drainage System.

SCOPE OF WORK
FOR
THE FEASIBILITY STUDY
ON
SHARQIYA SEWERAGE SYSTEM
IN
THE ARAB REPUBLIC OF EGYPT
AGREED UPON
THE JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE GOVERNORATE OF SHARQIYA

Cairo, March 26, 1987

A. Hashimoto

Akihiko HASHIMOTO,
RESIDENT REPRESENTATIVE,
IN EGYPT,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY

Fuad Hassan Abu El Azm

Eng. Fuad Abu EL AZM,
UNDERSECRETARY OF HOUSING
DEPARTMENT,
THE GOVERNORATE OF
SHARQIYA

S. Moh. Bayoumi

WITNESSED BY
SAAD MOHAMED BAYOUMI,
UNDERSECRETARY,
THE MINISTRY OF PLANNING AND
INTERNATIONAL COOPERATION

I. INTRODUCTION

In response to the official request of the Government of the Arab Republic of Egypt, the Government of Japan decided to conduct a feasibility study on Sharqiya Sewerage System in the Arab Republic of Egypt (hereinafter referred to as "the Study") within the framework of the Agreement on Technical Cooperation between the Government of Japan and the Government of Egypt, signed on June 15th, 1983.

The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Government of Egypt.

The Governorate of Sharqiya (hereinafter referred to as "the Governorate") shall act as counterpart agency to the Japanese study mission and also as a coordinating body in relation with other relevant organizations for smooth implementation of the Study.

The present document sets forth the Scope of Work for the Study.

A.P. F.H.A.

II. OBJECTIVES OF THE STUDY

The objectives of the Study is to prepare an appropriate plan from the view point of technical, economic, and social feasibility, to contribute to the development of Sharqiya Sewerage System.

The plan consists of the following items ;

1. To formulate a long-term programme as basic concept of sanitary development of Sharqiya Governorate up to year 2005, and identify a first priority project up until 1995. (Phase I Study)
2. To carry out a feasibility study for the 1st priority project identified in the long-term programme. (Phase II Study)

III. SCOPE OF THE STUDY

1. Study Area

- (1) The Study area of the PHASE I Study will cover Sharqiya Governorate. However, 10th of Ramadan area will be excluded.
- (2) The Study area of the Phase II Study will be selected from the result of the Phase I Study.

2. Contents of the Study

The Study will be composed of field surveys and data collection in Egypt and of analysis works in both Egypt and Japan.

(1) Phase I Study; Preparation of long-term programme

1. Data collection and analysis
 - a. population
 - b. land use
 - c. city development plan
 - d. natural condition (Topographical, meteorological and hydrological data)
 - e. soil and geological condition
 - f. water use and waste water quantity and quality
 - g. sewerage and related facilities
 - h. present sanitary condition
 - i. institution and financial condition
 - h. previous studies (Provincial Water Supplies Project, JICA Study on Sharqiya Water Supply System, etc.)
 - j. others
- cf. In this item, collected data in preceding Study and other available data in Egypt will be used.

J.P. F.H.A.

2. Study of present status of sewerage and sanitary condition based on above data.
3. Definition of planning criteria
 - a. target year (2005)
 - b. definition of planning area
 - c. conformity with JICA Study on Sharqiya Water Supply System
4. Formulation of a long-term programme
 - a. required new facilities
 - b. rehabilitation of existing facilities
 - c. night soil management in rural area
 - d. economic, financial and social analysis
 - e. organization and institution (including manpower development plan)
 - f. implementation plan
5. Identification of the first priority urban sewerage project up to 1995

(2) Phase II Study; Execution of Feasibility Study

1. Identification of scope for proposed project.
2. Ground survey
 - a. water and waste water quality survey
 - b. topographic survey for proposed facility
3. Facility planning
 - a. design criteria
 - b. examination of alternatives
 - c. new sewerage facility
 - d. rehabilitation of existing facilities
 - e. preliminary design
 - f. cost estimation
 - g. procurement planning of construction materials and estimation of manpower requirement
4. Institutional and organizational planning
 - a. appropriate institution form
 - b. organization of the institution
 - c. user charge system

J.P.

F.H.A.

5. Project evaluation
 - a. financial evaluation (least cost analysis)
 - b. economic evaluation
 - c. environmental and social evaluation

6. Implementation program
 - a. implementation schedule
 - b. disbursement schedule

IV. STUDY SCHEDULE

The whole study shall be conducted in accordance with the attached tentative schedule.

V. REPORTS

JICA shall prepare and submit the following reports in English to the Government of Egypt.

1. Inception Report, thirty five (35), at the beginning of the field survey of Phase I Study
2. Progress Report (I), thirty five (35) copies, at the end of the field survey of Phase I Study
3. Interim Report, thirty five (35) copies, within three (3) months after completion of the field survey of Phase I Study.
The Governorate will provide JICA with their comments within one (1) month after receipt of the Interim Report.
4. Progress Report (II), thirty five (35) copies, at the end of the field survey of Phase II Study.
5. Draft Final Report, thirty five (35) copies, within three (3) months after completion of the field survey of Phase II Study.
The Governorate will provide JICA with their comments within one (1) month after receipt of the Draft Final Report.
6. Final Report, fifty (50) copies, within one (1) month after the receipt of comments on the Draft Final Report

A.P.

F.H.A.

VI UNDERTAKINGS OF THE GOVERNMENT OF EGYPT

1. Within the framework of the Agreement on Technical Cooperation between the Government of Japan and the Government of the Arab Republic of Egypt signed on June 15th, 1983, (hereinafter referred to as "the Agreement"), the Government of the Arab Republic of Egypt shall take necessary measures to the Japanese Study Mission (hereinafter referred to as "the Mission") as follows:

(1) To permit the members of the Mission to enter, leave and sojourn in the Arab Republic of Egypt for the duration of their assignment therein, and exempt them from consular fees, (the Agreement Article V 2.(a))

(2) To exempt the members of the Mission from consular fees, customs duties, internal taxes and other charges of a similar nature as well as from the requirement of obtaining import licences and certificate of foreign exchange coverage to be imposed in the Arab Republic of Egypt in respect of the equipment, machinery and materials which they carry with them for the performance of their duties, provided that these equipment, machinery and materials are registered with the authority concerned of the Government of the Arab Republic of Egypt at their initial delivery in the Arab Republic of Egypt. Such equipment, machinery and materials will remain the property of the Government of Japan unless otherwise agreed upon, (the Agreement Article VII. 4)

(3) To exempt the members of the Mission from income taxes and other fiscal charges payable under the legislation of the Arab Republic of Egypt in respect of any emoluments or allowances remitted to them from overseas, (the Agreement Article V.1.(1).(a))

(4) To bear claims, if any arises, against the members of the Mission resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties except when the two Governments agree that such claims arise from gross negligence or willful misconduct on the part of the members of the Mission. (the Agreement Article VI.)

A.P.
F.H.A.

2. To facilitate smooth conduct of the Study, the Governorate shall take necessary measures in cooperation with other relevant organizations :
 - (1) To secure permission for entry into private properties or restricted areas for the conduct of the Study within the laws and regulations in force in the Arab Republic of Egypt.
 - (2) To secure permission for the Mission to take all data and documents (including photographs) related to the Study out of Egypt to Japan, within the laws and regulations in force in the Arab Republic of Egypt.
 - (3) To provide the medical services as needed. Its expenses will be chargeable on the members of the Mission.
 - (4) To ensure the safety of the members of the Mission when and as it is required in the course of the Study
3. The Governorate shall, at its own expense, provide the Mission with the followings :
 - (1) Available data and information necessary and related to the Study.
 - (2) Counterpart personnel and supporting staff necessary for the Study.
 - (3) Office space with necessary furniture in Sharqiya
 - (4) Credentials or identification cards

VII UNDERTAKINGS OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expenses, the Mission to Egypt.
2. To pursue technology transfer to the Egyptian counterpart personnel in the course of the Study






VIII. CONSULTATION

JICA and the Government of Egypt shall consult with each other in respect of any matter that may arise from or in connection with the Study.

APPENDIX

TENTATIVE SCHEDULE

Months No. Items	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	18
Preparation of Field Survey																
Field Survey (Phase I)																
House Work																
Explanation of Interim Report																
Field Survey (Phase II)																
House Work																
Explanation of Draft Final Rep.																
House Work																
Presentation of Final Report																

 : Preparation of Study
 : Field Survey or Exp. of Reports
 : Analysis of Field Survey (House Work)
 : Reports
 : Comments of Reports

F.H.A.

A.P.

MINUTES OF MEETING
FOR
THE FEASIBILITY STUDY
ON
SHARQIYA SEWERAGE SYSTEM
IN
THE ARAB REPUBLIC OF EGYPT
AGREED UPON
THE JAPAN INTERNATIONAL COOPERATION AGENCY
AND
THE GOVERNORATE OF SHARQIYA

The Japanese Preliminary Survey Team organized by the Japan International Cooperation Agency (hereinafter referred to as JICA) visited Egypt and had a series of discussion with the authorities concerned of the Arab Republic of Egypt, in particular with the Governorate of Sharqiya (hereinafter referred to as "Governorate") and Resident Representative of JICA in Egypt succeeded the discussion as Japanese side.

As a result of the meetings, both sides agreed upon the Scope of Work for Feasibility Study on Sharqiya Sewerage System (hereinafter referred to as "Study").

The record of the meetings is as follows :

1. In the Phase I Study, mainly the urban areas of the Governorate will be studied except 10th of Ramadan.
2. In reference to VI 3 of the Scope of Work, the Governorate will propose the full cooperation of National Organization for Potable Water and Sanitary Drainages (NOPWASD) for the Study team.
3. In reference to VI,2, (2), of the Scope of Work and with the consideration of availing permitted data and documents to a third party, the executing Egyptian authority will designate the confidentiality of such data and documents, if necessary.
4. In reference to III, 3, A of the Scope of work target year 2040 will be considered only for the main network

Cairo, March 26, 1987

A. Hashimoto

Akihiko HASHIMOTO,
RESIDENT REPRESENTATIVE,
IN EGYPT,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY

Fuad Hassan Abu El Azm

Eng. Fuad Abu El AZM,
UNDERSECRETARY OF HOUSING,
DEPARTMENT,
THE GOVERNORATE OF
SHARQIYA

JICA