

資 料

- 1 . 主要面談者リスト
- 2 . 協議議事録
- 3 . 聞き取り調査及びその回答
- 4 . 資料収集リスト

資料1 相手国関係者リスト

<u>相手国関係機関</u>	<u>氏名</u>	<u>担当部署</u>
全国上下水道庁	Mrs.Samira Nicole	調査計画総局長
	Mr.Mohammed Sahid Gohari	設計局長
	Mrs. Howida Anani	調査計画技術者
	Mr. Mustafa Atta	シャルキーヤ県事務所
訓練センター	Mr. Romil Neseem Saad	所長
	Mr. Khaled Mohamed Abdel Aziz	技術訓練員
	Mr. Fathy Attia Abdelmeged	技術訓練員
	Mr. Ossama Elghazali	技術訓練員
シャルキーヤ県上下水道公団	Mr. Mohamed Hammad	会長
	Mr.Osama Abdel Ghany	副会長
	Mr. Hakim Kammhawy	水道部長
	Mr.Alaa El Deen Mohhamed	会長室長
アッバサ浄水場	Mr. Farouce Mohamed Basha	場長
ファクス浄水場	Mr.Salah Salem	ファクス支局長
	Mr. Yasser Abdelwhab Soliman	技術者
	Mr. Medhat Taleb	ヒヒヤ支局長
ヒヒヤ浄水場	Mr. Medhat Taleb	ヒヒヤ支局長
ヒヒヤ郡庁	Mr. Waddan	郡議員
フォスタット浄水場	Dr.Gehad Hassan	中央試験所長
	Nagy Gayed	試験室長
	Mr.Samir Hassan Mohamed	アドバイザー
	Mr. Soliman Wahba Aly	場長
ロッドエルファラッグ浄水場	Mr. Soliman Wahba Aly	場長
南ギザ浄水場	Mrs. Nagwa Zaghoul	局長
	Mr. Mohammed Shawky	技術者
	Mr. James Harmon	上下水道主任
USAID	Mrs. Noha Fouad El-Maraghy	技術者
Ain Shams University	Dr. Abdelkawi M. Khalifa	コンサルタント
日本大使館	上田正勝	2等書記官
JICA カイロ事務所	宇田智之	所員
	Mr. Wael M. Yehya	調整員

MINUTES OF DISCUSSION
ON
THE PRELIMINARY STUDY
ON
THE PROJECT FOR DEVELOPMENT OF WATER TREATMENT PLANT
IN
THE ARAB REPUBLIC OF EGYPT

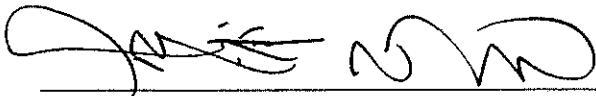
The Government of Japan decided to conduct a Preliminary Study on the three projects of the water supply which were requested by the Government of Egypt to the Government of Japan, and entrusted the study to Japan International Cooperation Agency (JICA).

JICA sent to Egypt the Preliminary Study Team (hereinafter referred to as "the Team") headed by Mr. Shozo Matsuura, Managing Director, Grant Aid Management Department, JICA, and has been scheduled to stay in the country from the 15th December to the 25th December 2002.

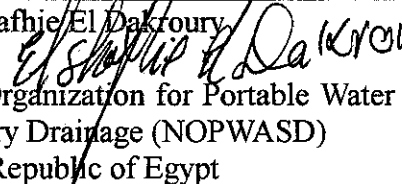
The team held series of discussions on the projects with the officials concerned from the Government of Egypt (hereinafter referred to as "the Egyptian side") and conducted field surveys at the project areas.

As a result of the discussions and field surveys, both parties confirmed the main points described on the attached sheets.

Cairo, 24th December 2002

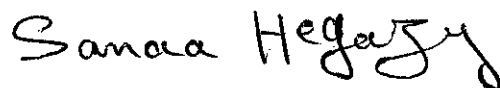


Mr. Shozo Matsuura
Leader
Preliminary Study Team
Japan International Cooperation Agency
JAPAN



Eng. El Shafhie El Dakrouy
Chairman
National Organization for Portable Water
and Sanitary Drainage (NOPWASD)
The Arab Republic of Egypt

Witness;



Mrs. Sanaa Hegazy
Undersecretary, Asia and Australia Sector
International Cooperation Sector
Ministry of Foreign Affairs
The Arab Republic of Egypt

ATTACHMENT

1. Purpose of the Study

The Government of the Arab Republic of Egypt made requests for Grant Aid on the following projects to the Government of Japan (The brief explanation of each project is attached in ANNEX1):

- The Expansion of Amiryia Water Treatment Plant (hereinafter referred to as “the Amiryia Project”)
- The Water Supply Development in North-West part of Sharqiya Governorate (hereinafter referred to as “the Sharqiya Project”)
- The Rehabilitation and Upgrading for El Mahala El Kobra Water Treatment Plant (hereinafter referred to as “the El Mahala Project”)

The purpose of the team is to identify the order of priority of the three projects so that the Government of Japan can proceed to further steps towards realization of one of the projects by Japan’s Grant Aid. The study has been also aimed to explain the Japan’s Grant Aid Scheme to the Egyptian side.

2. Clarification of the request by the Egyptian side

- 2-1. The Egyptian side explained that the Amiryia Project shall be completed by April, 2004. But the Team explained that it is difficult to complete the whole by April, 2004. Taking this explanation of the Team the Egyptian side will seek another aid than Japan’s Grant Aid to do the Amiryia Project.
- 2-2. The Egyptian side agreed that they give priority to the Sharqiya Project rather than the El Mahala Project, because access to safe water is not maintained in the area of the Sharqiya Project due to a degradation of ground water quality. On the other hand in the El Mahala Project area safe water is available but is not meeting with the increasing demand due to the expansion of the service coverage.

3. The observations of the Team

- 3-1. The Egyptian side explained that they had developed five water treatment plants so far in Sharqiya Governorate. However in Hihya there only exists water supply facilities of compact units of water treatment which they can hardly operate adequately and wells whose quality of ground water has degraded by salinization of aquifer. So the Egyptian side has been considered to improve the situation of water supply through establishment of one new water treatment plant covering the villages in Hihya. Besides the Egyptian side has a plan to extend the water

El Shof...

W

treatment plant to supply to other two Markazs in addition to Hihya Markaz. The team observed the site of the new plant, a newly built plant in Zagazig city, a compact unit of water treatment, wells and taps in a house in a village. Then the team suggested that the land filling on the site is necessary by the Egyptian side if the Project is done by Japan's Grant Aid.

3-2. The Egyptian side explained that El Mahala El Kobra Water Treatment Plant requires rehabilitation and extension in order to meet an increasing demand, because Mahala El Kobra city is one of the industrial cities in Delta area. The Egyptian side also explained that they had constructed the plant in 2001 and the old water treatment plant built in 1984 is nearly out of order. So the content of their request is not only extension but also rehabilitation of the plant. The site for extension of the plant has been already secured in the present treatment site. The team suggested that it could be necessary not only to replace the machineries of the old plant to new integrated control system but also to rebuild the civil structures of which the technical details would be clarified on the basis of further investigation.

4. Conclusion

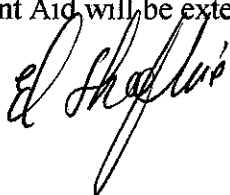
The Team has been impressed both of the Sharqiya Project and the El Mahala Project are necessary to support but the preference will be given to the Sharqiya Project, because the Team identified that the preparation of the Sharqiya Project has been well designed and examined by the Egyptian side.

5. Schedule and content of the Study

JICA will implement the second field survey of this preliminary study to collect all the information relating to the priority project and to investigate actual situation on the project area. For this second field survey JICA will send two consultants in January 2003.

6. Japan's Grant Aid Scheme

- 6-1. The Egyptian side understood the Japan's Grant Aid Scheme as explained by the Team, as described in ANNEX 2.
- 6-2. The Egyptian side agreed to take necessary measures, as described in ANNEX 3, for the smooth implementation of the Project, on the condition that the Japan's Grant Aid will be extended to the Project.



S.4
W

7. Other relevant issues

7-1. Contents of request

Egyptian side explained that the component of the Sharqiya Project was to construct new water treatment plant to supply water to Hihya and the details would be changed from the application on 3 December, 2002 based on the Egyptian study completed in this year.

7-2. Necessary measures for the second field survey

For the smooth implementation of the second field survey, the Egyptian side confirmed to provide necessary arrangement mentioned bellow:

- (1) To provide the JICA consultants with available relevant data, information and materials necessary for the execution of the study.
- (2) To prepare the answers for the Questionnaire presented by the JICA consultants.
- (3) To assign full-time and part-time counterparts to the consultants during their stay in Egypt to function as follows:
 - To make appointments and set up the meetings with the authorities concerned when the consultants intend to visit. (full-time counterparts)
 - To attend the site survey and any other visiting places with the JICA consultants and to secure the permissions, if required. (full-time counterparts)
 - To assist and to advise the JICA consultants for their collection of data and information as much as possible. (full-time counterparts)
 - To collect necessary data and information from concerned agencies of Egypt. (part-time counterparts)

7-3. Responsible and Implementing Organization

The Egyptian side explained that the responsibility of construction, expansion and rehabilitation of water treatment plants belongs to National Organization for Portable Water and Sanitary Drainage (NOPWASD). However the Team requested that active and positive involvement of the Sharqiya Economic General Authority for Water And Sanitary Drainage (SHEGAWASD), the Sharqiya Governorate is indispensable to the Basic Design Study and implementation of the Project with view to the responsibility of operation & maintenance and management of water supply sector in the Governorate (The organizational chart of NOPWASD is attached as ANNEX 4).



34



ANNEXI

1.The Project for the Expansion of Amiryra Water Treatment Plant

1-1. Objective of the Project

The objective of the Amiryra Project is to increase water supply through extension of Amiryra Water Treatment Plant.

1-2. Project site

The site of the Amiryra Project is the East Bank of Greater Cairo.

1-3. Implementing Organization

Implementing Organization of the Amiryra Project is General Organization of Greater Cairo Water Supply.

2.The Project for Water Supply Development in North-West part of Sharqiya Governorate

2-1. Objective of the Project

The objective of the Sharqiya Project is to increase people who can access to safe water in North-West part of Sharqiya Governorate through development of a water treatment plant.

2-2. Project site

The site of the Sharqiya Project is Hihya in Sharqiya Governorate.

3.The Project for the Rehabilitation and Upgrading for El Mahala El Kobra Water Treatment Plant

3-1. Objective of the Project

The objective of the El Mahala Project is to increase water supply through rehabilitation and extension of El Mahala El Kobra Water Treatment Plant.

3-2. Project site

The site of the El Mahala Project is Mahala El Kobra city and its rural area (53 villages).



3-14



ANNEX 2 The Japan's Grant Aid Scheme

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

(1) Grant Aid Procedure

1) Japan's Grant Aid Program is executed through the following procedures.

- Application (Request made by a recipient country)
- Study (Basic Design Study conducted by JICA)
- Appraisal & Approval
(Appraisal by the Government of Japan and Approval by Cabinet)
- Determination of Implementation
(The Notes exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request. If necessary, JICA send a Preliminary Study Mission to the recipient country to confirm the contents of the request.

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

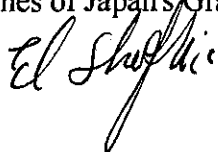
(2) Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) confirmation of the background, objectives and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- b) evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from the technical, social and economic points of view;
- c) confirmation of items agreed on by both parties concerning the basic concept of the Project;
- d) preparation of a basic design of the Project; and
- e) estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.



The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a consulting firm selected through its own procedure (competitive proposal). The selected firm participates in the Study and prepares for a report based upon the terms of reference set by JICA.

At the beginning of implementation after the Exchange of Notes, for the services of the Detailed Design and Construction Supervision of the Project, JICA recommends the same consulting firm which participated in the Study to the recipient country in order to maintain the technical consistency.

(3) Japan's Grant Aid Scheme

1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

- 2) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

- 3) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

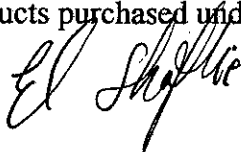
However, the prime contractors, namely consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

5) Undertakings required to the Government of the recipient country

- a) to secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction;
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites;
- c) to ensure all expenses and prompt execution for unloading and customs clearance at ports of disembarkation in the recipient country and internal transportation therein of the products purchased under the Grant Aid;



- d) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
 - e) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work;
- 6) "Proper Use"
The recipient country is required to operate and maintain the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.
- 7) "Re-export"
The products purchased under the Grant Aid shall not be re-exported from the recipient country.
- 8) Banking Arrangement (B/A)
 - a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.
 - b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay (A/P) issued by the Government of recipient country or its designated authority.
- 9) Authorization to Pay (A/P)
The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.



ANNEX 3 Necessary Measures Undertakings by Each Government

No	Items	To be covered by	
		Grant Aid	Recipient Country
1	To secure land		•
2	To clear, level and reclaim the site when needed		•
3	To construct gates and fences in and around the site		•
4	To construct the parking lot		•
5	To construct roads		
	1) Within the site		•
	2) Outside the site		•
6	To construct the treatment plant & other facilities	•	
7	To provide plant & other facilities for the distribution of electricity, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		•
	b. The drop wiring and internal wiring within the site	•	
	c. The main circuit breaker and transformer	•	
	2) Drainage of the plant		
	a. The city drainage main (for storm, sewer and others) to the site		•
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site		•
	3) Furniture and Equipment		•
8	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
9	To ensure prompt unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	•	
	2) Tax exemption and customs clearance of the products at the port of disembarkation		•

	3) Internal transportation from the port of disembarkation to the project site	(•)	(•)
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts		•
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		•
13	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		•

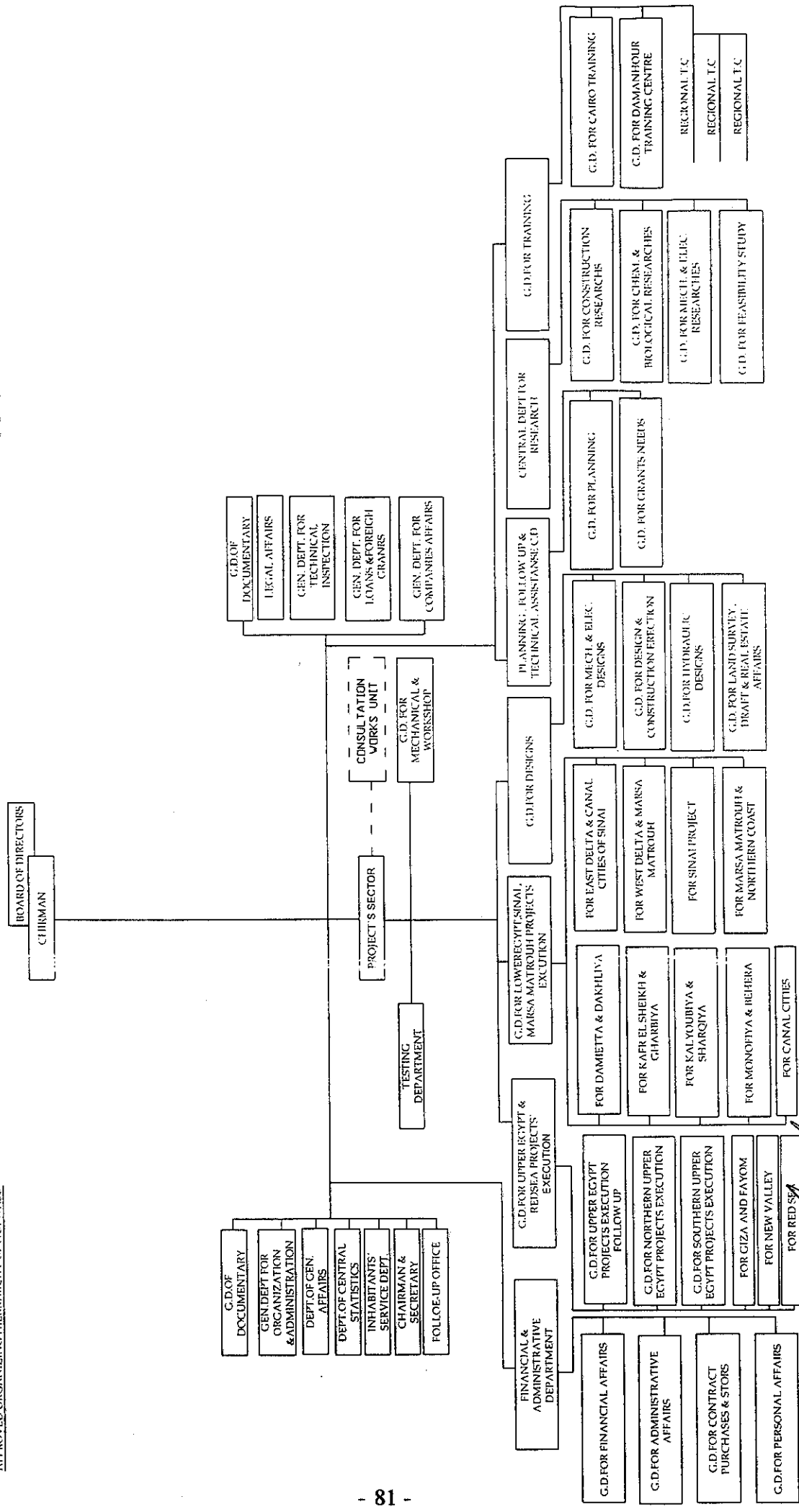
El Shafie

N.M.

NATIONAL ORGANIZATION FOR POTABLE WATER AND SEWER DRAINAGE

GENERAL DEPARTMENT FOR ORGANIZATION AND ADMINISTRATIVE CHART

APPROVED ORGANIZING HIERARCHY OF NOPWASD



Handwritten signature

Handwritten initials

資料3 聞き取り調査及びその回答

1. GENERAL INFORMATION (1/2)

No.	Data/ Information	Description	回答及び資料入手状況
1.1	General Socio-Economic Condition		
(1)	Fifth 5-year plan		計画省が作成した図書の写しを入手
(2)	Population of Sharquiya governorate		1996年国勢調査の結果を入手
(3)	Land use in Sharquiya governorate		シャルキア州情報センターにて農業省作成データを入手。但しデータは不完全である。
(4)	Number of villages of Sharquiya governorate		各郡の村落数入手
(5)	Land use map of Hihya Markaz		未回答
(6)	Situation of private sector		水セクターではまだ民間セクターが育っていない。SHEGAWASDが独立採算体制をとることが先決
1.2	Executing Agency		
(1)	NOPWASD	organization chart, & number of staff, annual budget	組織図は入手、部門別職員数は未回答 5か年の予算は入手、年間予算は未回答
		capability	NOPWASDは多くの給水プロジェクトを、ローカル財源で実施している。運営・維持は各Governorateの責である。
(3)	SHEGAWASD	organization chart, number of staff, annual budget, list of equipment	SHEGAWASDから入手
		training program of SHEGAWASD	SHEGAWASDから入手
		organization of Hihya Department	SHEGAWASDから入手
		frequency of laboratory test	Zagazig浄水場では、原水検査は毎日1回、浄水検査は2時間毎とされる。しかし、ヒヤ郡に於いては、テスト設備が事実上なく、厚生省によりタップウォーターが3ヵ月毎のケミカル検査、1ヶ月毎の細菌学的検査が行なわれているに過ぎない。
1.3	Site Condition		
(1)	Availability of water intake		通年取水が可能になるべく運河庁は計画している。Muweis Canalについては2004年から実施予定とされる
(2)	Availability of land		農業省から、農地転用許可取得済み。現況更地
(3)	Expansion of land		農地転用への規制は厳しいが、公共目的の場合にはまだ可能。但し転用許可取得には時間が掛かる(Hihyaでの浄水場建設予定地の場合、2年間を要したとされる)
(4)	Land reclamation at WTP site		必要に応じて、エジプト側で行なうことは出来る。1~1.5mほどの盛立てが必要となるであろうが、工事量、工期について特に問題とはならない見込み

1. GENERAL INFORMATION (2/2)

No.	Data/ Information	Description	回答及び資料入手状況
1.3	(5) Access road		Muweis Canal 堤体道路利用が可能である。一部退避場(Lay-by)が必要かと思われ
	(6) Power supply		NOPWASDは2回線受電を原則としている。1回線分は、近場(浄水施設予定地から1.5km)からの引き込みが可能であろう。容量余裕については未確認。
	(7) Fault in power supply		PowerLine維持修理のため(とされる)停電が、シャルキア州では、1週間から10日に1回の割合である。停電時間は10分間程度。NOPWASDの原則として、機器を駆動できる容量のディーゼル発電設備を設置することとなっている。
	(8) Water level from Mues canal		連河片が水位制御を行なっている。今回はデータ入手できず。
	(9) Future plan of Mues canal		Hihyaで護岸改良工事(石積み護岸へ)中だが、拡幅工事ではない
1.4	Transportation		
	(1) Cargo handling capacity at ports		問題なし
	(2) Road condition		問題なし
1.5	Local consultant/ contractors		
	(1) Contractor		大手4社は経験豊富
	(2) Consultant		12社ほどが設計能力ありとされる。
1.6	Availability of materials		
	(1) Civil/architectural works		セメント、鉄筋は国産で規準に合致したものがあり、生産量的にも問題ない
	(2) Mechanical/electrical equipment		小型ポンプはヨーロッパ系企業との合弁工場で生産している。ただし、当該PJTに使用されるであろう規模のものは輸入される。
	(3) Alum, hydrated lime and chlorine		硫酸バン土は国産、濃度調整溶液或いは固形形状で搬入されている。塩素剤は液体シリンドラ詰めで配送される。
	(4) Sand for filter		様々の組成のものが得られる。特にフィルタ材としては、シナイ半島方面からのものがよく
1.7	Maps		
	(1) Topographic map of project site (1/50,000)		今回は原図入手できず。最近、公開されたとされるが、入手には然るべきが手続きが必要。
	(2) Topographic map at WTP site		3郡給水計画図面あり

2. WATER SUPPLY FACILITY

No.	Data/ Information	Description	回答及び資料入手状況
2.1	Water supply facility		
(1)	List of existing water supply facility		SHEGA WASDから入手済み
(2)	De-iron, de-manganese facility		SHEGA WASDから入手済み
(3)	Future plan of water supply facility		2017年迄の5ヵ年計画に実施計画が示されている。
(4)	Layout drawing of existing WTP		ザガジグ浄水場のみ入手。他の4浄水場は未回答
(5)	Location map of existing water supply facility		未回答
(6)	Location map of future water supply facility		未回答
2.2	O/M condition of the water supply system		
(1)	Major problems		コンパクトユニットは劣化が進み次第に廃棄されつつある。もともと、長期に亘って使用できるものではないことによる。
(2)	Rehabilitation of facilities		コンパクトユニットは特に全体的劣化が進んでいる。一部の部品取替えだけでは対応できなくなりつつあると見られる。
(3)	Water leakage		系統的漏水調査は行われていない。漏水探知機器や探知要員、漏水探知に適した配管網とはなっていないなどの理由によるとされる。可視漏水となつてから、修理されている。
2.3	Performance of Existing WTP		
(1)	Inclined plate separator		South Giza浄水場にJICA無償で建設されたものがある。浄水品質は非常に良いが、硫酸ばん土使用量が多いとされる(きめ細かい調節をやっていない可能性もあり)
(2)	sludge recirculation		GOGCWSのFaraq浄水場にあり(USAID資金による改良工事、1985)。硫酸ばん土の使用量が30%程節約できているとされる。

3. DESIGN DATA

No.	Data/ Information	Description	回答及び資料入手状況
3.1	Egyptian Standard/ regulation		
(1)	Water quality	Raw water, treated water and waste water	飲用水水質基準は、その原水種別(表流水、地下水)ごとに規定されている。最新は1,995年版。排出基準は、排出先種別ごとに規定されている。最新版は1982年のDecree No.48である
(2)	Water treatment plant		Egyptian Code: Base Line for Design and Implementation of Water Treatment Plant, Sanitary Drainage and Pump Station Construction, Decree No.52, 1998 にて規定されている
(3)	Pipeline		同上
(4)	Civil/ building works		同上
(5)	Mechanical/ electrical works		同上
(6)	Regulation on sludge disposal		同上
3.2	Water demand		
(1)	Target year		NOPWASDによれば2,020年とされているが、要請書での数値は2010年対応値かと思われる
(2)	Unit rate for domestic/ industrial/ public use		NOPWASDの計画値あり。
(3)	Daily/ hourly peak factor		上記Egyptian Code, Decree No.58に規定有り。
(4)	Residual pressure at end taps		エンドタップでは5m水柱相当 (Egyptian Code)
(5)	Capacity of elevated tanks		適宜、適切なもの設計する。
3.3	Water quality		
(1)	Treated water quality at Hihya existing plant		Hihya郡でのエンドタップ水質検査結果有り。但し詳細不詳
(2)	Laboratory test results at Abbasa WTP		三郡給水計画図面あり(精度不詳)

資料 4 資料収集リスト

主管部長	文書管理課長	主管課長	情報管理課長	図書資料室受付印

平成15年2月20日 作成

地域	シヤルキア州	エジプト浄水場整備計画		調査の種類	予備調査	作成部課		無償資金協力部					
		調査団	等名称			2003年1月～2003年2月	担当者氏名						
国名	エジプト			現地調査期間									
番号	資料の名称	形態	版型	ページ数	リジナル 北-の別	部数	収集先名称又は発行機関	寄贈・購入 (価格)の別	取扱 区分	利用 表示	利用者 所属氏名	納入 予定日	納入確認欄
1	3郡給水マスタープラン	ﾊﾞﾗ	A4	80	コピー	1	NOPWASD	寄贈					
2	シヤルキア州上下水セクター5ヵ年計画 2002/2003	ﾊﾞﾗ	A4	4	コピー	1	SHEGAWASD	寄贈					
3	シヤルキア州上下水セクター5ヵ年計画 2002/2003	ﾊﾞﾗ	A4	5	コピー	1	SHEGAWASD	寄贈					
4	Presidential Decree (1995)	ﾊﾞﾗ	A4	5	コピー	1	SHEGAWASD	寄贈					
5	シヤルキア州上下水セクター実施計画	ﾊﾞﾗ	A4	6	コピー	1	SHEGAWASD	寄贈					
6	SHEGAWASD人員構成表	ﾊﾞﾗ	A4	1	コピー	1	SHEGAWASD	寄贈					
7	第5次5ヵ年計画	ﾊﾞﾗ	A4	60	コピー	1	エジプト国計画省	寄贈					
8	シヤルキア州人口(国勢調査)	ﾊﾞﾗ	A4	1	コピー	1	SHEGAWASD	寄贈					
9	シヤルキア州耕作地面積	ﾊﾞﾗ	A4	1	コピー	1	シヤルキア情報センター	寄贈					
10	シヤルキア州給水施設リスト	ﾊﾞﾗ	A4	1	コピー	1	SHEGAWASD	寄贈					
11	ザガジグ浄水場全体平面図	ﾊﾞﾗ	A1	1	コピー	1	SHEGAWASD	寄贈					
12	ファクスWTPシステムダイアグラム	ﾊﾞﾗ	A1	1	コピー	1	SHEGAWASD	寄贈					
13	ヒヤ市内給水管網図	ﾊﾞﾗ	A1	1	コピー	1	SHEGAWASD	寄贈					
14	エジプト全土道路網図	ﾊﾞﾗ	A1	1	オリジナル	1	SHEGAWASD	寄贈					
15	SHEGAWASDバランシート	ﾊﾞﾗ	A4	6	コピー	1	SHEGAWASD	寄贈					
16	アッバサ浄水場水質試験	ﾊﾞﾗ	A4	2	コピー	1	SHEGAWASD	寄贈					
17	エジプト国上水水質基準(地下水水源)	ﾊﾞﾗ	A4	1	コピー	1	NOPWASD	寄贈					
18	エジプト国上水水質基準(表流水水源)	ﾊﾞﾗ	A4	1	コピー	1	NOPWASD	寄贈					
19	エジプト国配水水質基準(排水専用路への排出)	ﾊﾞﾗ	A4	1	コピー	1	NOPWASD	寄贈					
20	ムエス運河、ヒヤ市地下水水質試験結果	ﾊﾞﾗ	A4	1	コピー	1	SHEGAWASD	寄贈					
21	ヒヤ郡上水水質試験結果	ﾊﾞﾗ	A4	1	コピー	1	SHEGAWASD	寄贈					
22	NOPWASD訓練所訓練プログラム	ﾊﾞﾗ	A4	2	コピー	1	SHEGAWASD	寄贈					
23	ヒヤ郡井戸位置村落リスト	ﾊﾞﾗ	A4	3	オリジナル	1	SHEGAWASD	寄贈					