

添付資料

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MINUTES OF DISCUSSIONS
ON
PRELIMINARY STUDY
ON
THE PROJECT FOR MODERNIZATION OF AGRICULTURAL
MECHANIZATION CENTER IN DAMANHOUR
IN
THE ARAB REPUBLIC OF EGYPT

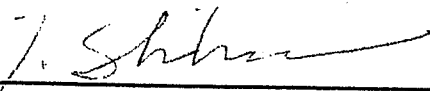
In response to a request from the Government of the Arab Republic of Egypt (hereinafter referred to as "Egypt"), the Government of Japan decided to conduct a Preliminary Study on the Project for Modernization of Agricultural Mechanization Center in Damanhour (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Egypt the Preliminary Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Takao SHIBUSAWA, Team Director, Rural Development Team of Project Management Group III, Grant Aid Management Department, JICA and is scheduled to stay in the country from 18th September to 5th October, 2005.

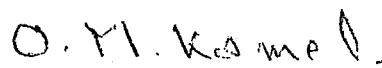
The Team held discussions with the officials concerned of the Government of Egypt and conducted a field survey at the study area.

As a result of discussions and field survey, both parties confirmed the main items described in the attached sheets.

Cairo, October 3, 2005



Mr. Takao SHIBUSAWA
Leader
Preliminary Study Team
Japan International Cooperation Agency
(JICA)



Dr. Osama Mohamed Kamel
First Undersecretary
Chairman
Agricultural Mechanization Sector
Ministry of Agriculture and Land Reclamation
Arab Republic of Egypt

ATTACHMENT

1 Objective of the Project

The objective of the Project is to extend agricultural mechanization in area covered by General Administrations of Beheira, New Lands and Wadi Natroun of Beheira Governorate through the provision of facilities and equipments necessary for the operation of Training, Central Workshop and Hiring Service function in Damanhour.

2 Project site

The Project site will be in Damanhour. Its location and the commanded area of General Administrations of Beheira, New Lands and Wadi Natroun is shown in Annex - I.

3 Responsible and Implementing Agency

3.1 The responsible and implementing agency is Agricultural Mechanization Sector of Ministry of Agriculture and Land Reclamation (MoALR).

3.2 The organization chart of MoALR, and Agricultural Mechanization Sector of MoALR attached as Annex - II and Annex - III.

4 Items requested by the Government of Egypt.

After discussions with the Team, the Government of Egypt explained the requested components with priority described in Annex - IV. JICA will assess the appropriateness of the request and will report the findings to the Government of Japan.

5 Japan's Grant Aid Scheme

The Egyptian side understood Japan's Grant Aid Scheme explained by the Team, as described in Annex - V.

6 Other relevant issues

6.1 Background of the Project

Both sides understood the present situation of agricultural mechanization and the Project Site as followings:

Major functions of agricultural mechanization activity under Agricultural Mechanization Sector of MoALR are Hiring Service, Training, Central Workshop and Central Warehouse, and agricultural mechanization facilities are classified into 3 categories based on its functions, as followings:

A) "Integrated Center" is a facility that has full functions of agricultural mechanization activity; Hiring Service, Training, Central Workshop, and Central Warehouse.

B) "Center" is a facility that has at least 2 functions (one function has to be Training) out of the 4 full functions.

C) "Hiring Station" is a facility that has only Hiring Service function.

According to the above categories, Damanhour is currently classified as "Hiring Station". If the Project is implemented, Training and Central Workshop functions shall be added to Damanhour. Thus, the facility shall be called as "Agricultural Mechanization Center in Damanhour".

a.k.o.m.t

6.2 Agricultural Mechanization in Agricultural Development Policy

The Egyptian side agreed to hand over the relevant policy paper to explain the role of agricultural mechanization in Agricultural Development Policy by 10th of October, 2005. Both sides agreed that the Japanese side shall assess and evaluate appropriateness of the contents.

6.3 Agricultural Mechanization Strategy

The Egyptian side explained "Agricultural Mechanization Strategy", in which strategy of agricultural mechanization sector is described, is under the process of finalization. The Egyptian side agreed to hand over the completed "Agricultural Mechanization Strategy" by 10th of October, 2005. Both sides agreed that the Japanese side shall assess and evaluate appropriateness of the contents.

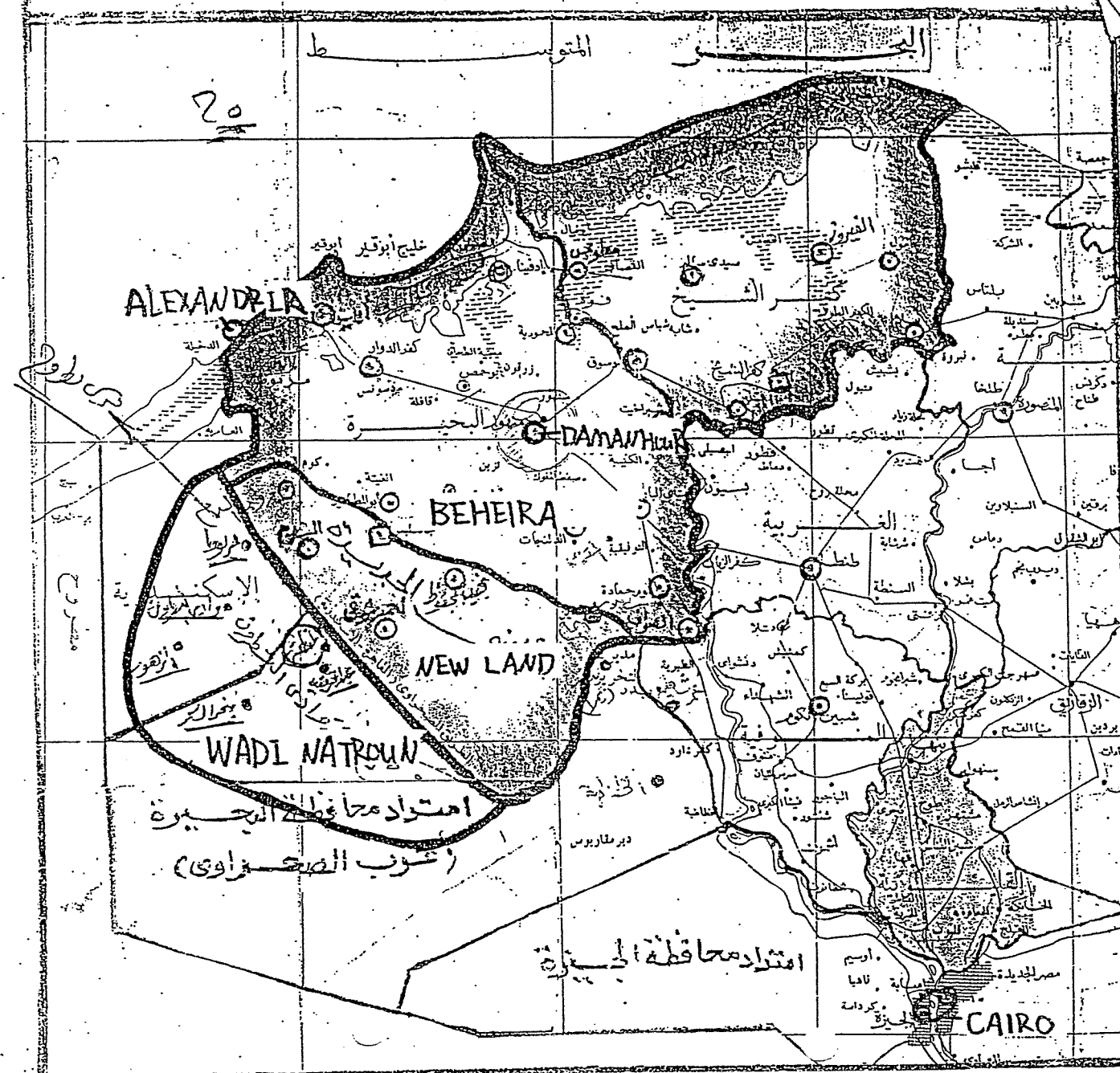
6.4 Proposed Plan for Agricultural Mechanization Center in Damanhour

Both sides understood that the Proposed Plan for Agricultural Mechanization Center in Damanhour (hereinafter referred as the Proposed Plan) should address the clear role and action plan of Agricultural Mechanization Center in Damanhour to achieve "Agricultural Mechanization" in Beheira Governorate. However, the Proposed Plan is not addressing the clear role and action plan, thus necessity and sustainability of the requested components cannot be confirmed. Therefore, both sides have agreed that the Proposed Plan shall be revised by the Egyptian side to clearly show the direction and the future operational plan of Agricultural Mechanization Center in Damanhour to achieve the promotion of Agricultural Mechanization in Beheira Governorate. The Egyptian side agreed to hand over the completed Proposed Plan by 10th of October, 2005. Both sides agreed that the Japanese side shall assess and evaluate appropriateness of the contents.

6.5 Environment and Social Issues

The Egyptian side explained that EIA (Environmental Impact Assessment) and IEE (Initial Environmental Examination) will not be necessary for the implementation of the Project.

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ALEXANDRIA

DAMIENNA

BEHEIRA

NEW LAND

WADI NATROUN

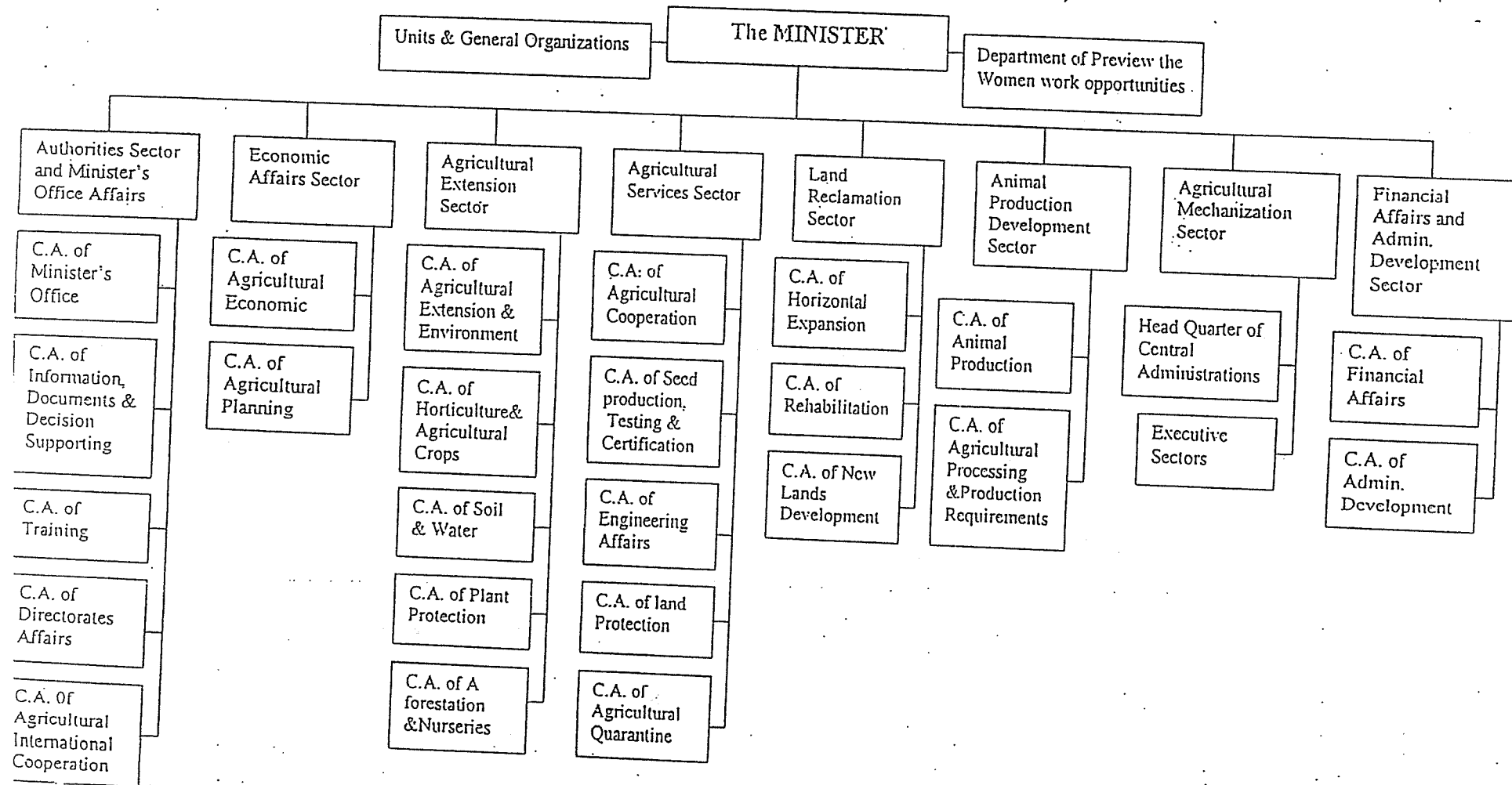
CAIRO

امتداد محافظة البحيرة
(عرب الصحراوي)

امتداد محافظة المنية

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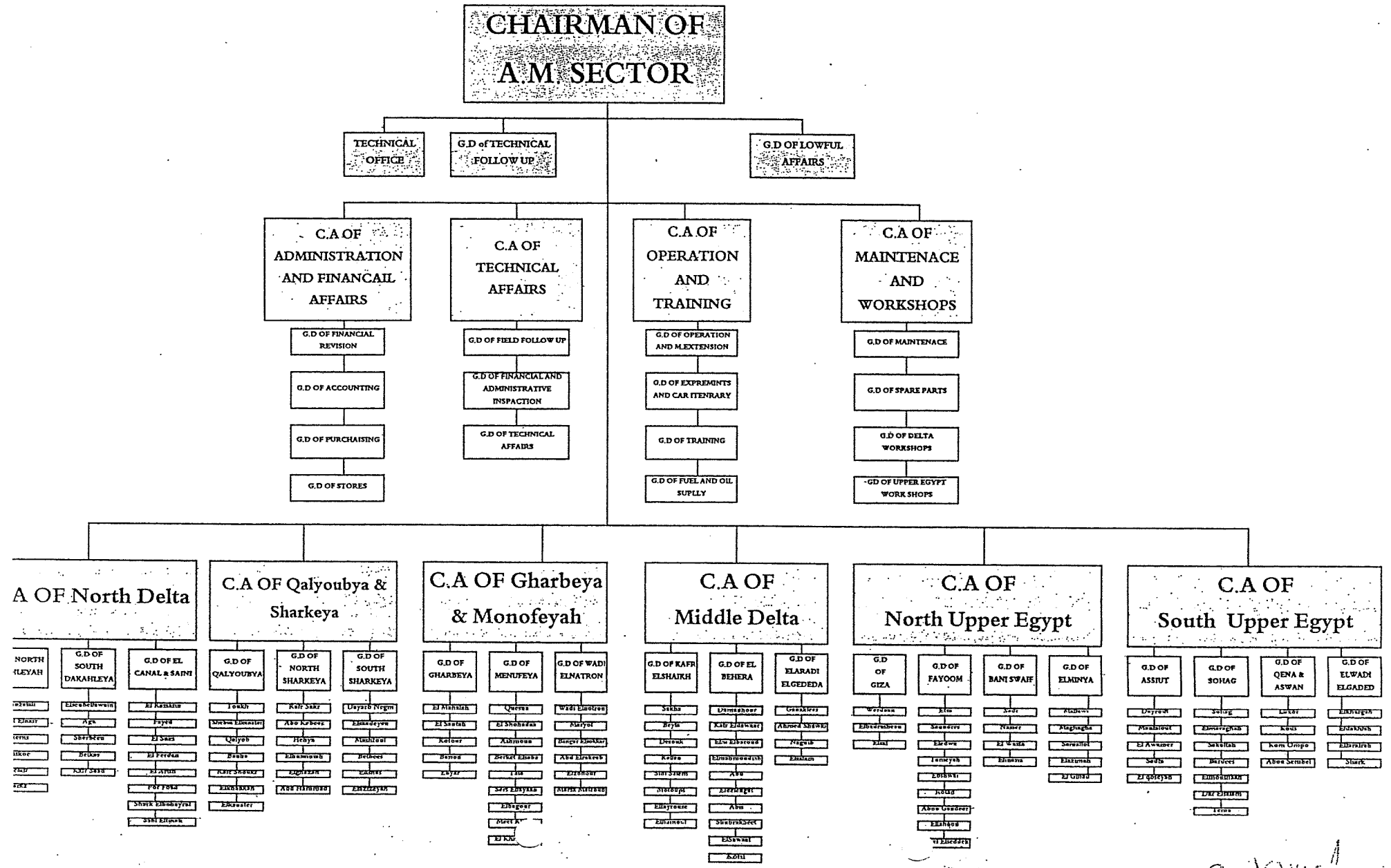
Organizational Structure of
Ministry of Agriculture and Land Reclamation (MALR)



C. A.: Central Administration

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ORGANIZATIONAL CHART OF AGRICULTURAL MECHANIZATION SECTOR



Components Requested Egypt Side

C-10 附錄 9/1

Level of Priority as follows;

A

B: Less than "A"

C: Less than B"

D: Lowest Priority

Application Form for Grant Aid		Preliminary Study Stage			Remarks
Components	Qty	Components	Purpose of Use	Priority	
Training activities					
1. Facility					
(1) Audio-visual room		(1) Audio-visual room	Conducting training courses	A	
(2) Training classes		(2) Training classes		A	
(3) Others		(3) Dormitory and dining room	Accommodation for trainees	A	
		(4) Practice room	Conducting practical training	A	
(5) Operator's training yard		(5) Operator's training yard	Conducting practical training	D	
2. Equipment					
(1) Cutaway model (engines, fuel injection pump)	3 items	(1) Cutaway model (engines, fuel injection pump)	Teaching aids of agricultural machinery and Implements	A	
(2) Audio-visual equipment (projector, TV, camera, PC, etc)	10 items	(2) Audio-visual equipment (projector, TV, camera, PC, etc)		B	
(3) Educational software (CD) (centrifugal com., hydraulics)	6 items	(3) Educational software (CD) (centrifugal com., hydraulics)		A	
(4) Animated overhead transparencies	10 items	(4) Animated overhead transparencies		A	
(5) Engine repair and test	67 items	(5) Engine repair and test	Conducting practical training	B	附加設備之費用 此項設備之費用
(6) Chassis service	45 items	(6) Chassis service			
(7) Tools for common use	34 items	(7) Tools for common use			
(8) Metal works	44 items	(8) Metal works			
(9) Welding (arc, gas)	15 items	(9) Welding (arc, gas)			
(10) Washing and painting	9 items	(10) Washing and painting			
(11) Wood works	19 items	(11) Wood works			
(12) Micro bus	1 unit	(12) Micro bus	transportation service for trainees to & from the field	B	Further survey shall be done based on the completed Plan of Agricultural

Application Form for Grant Aid		Preliminary Study Stage			Remarks
Components	Qty	Components	Purpose of Use	Priority	
Central workshop activity					
1. Facility					
(1) Engine overhauling		(1) Engine overhauling	Repair of AMSs machineries and production of farm implements	A	
(2) Transmission repairing		(2) Transmission repairing		A	
(3) Electricity and electronics		(3) Electricity and electronics		C	
(4) Metal working		(4) Metal working		A	
(5) Hydraulic and pneumatic circuits		(5) Hydraulic and pneumatic circuits		C	
(6) Painting cabin		(6) Painting cabin		C	
(7) Welding		(7) Welding		A	
(8) Wood working		(8) Wood working		B	
2. Equipment					
(1) General equipment	54 items	(1) General equipment	Repair of AMSs machineries and production of farm implements	B	
(2) Lubrication equipment	9 items	(2) Lubrication equipment			
(3) Measuring tools	59 items	(3) Measuring tools			
(4) General tools	88 items	(4) General tools			
(5) Mobile workshop (pickup based service truck)	2 unit	(5) Mobile workshop (pickup based service truck)	Repair and maintenance of farm machinery as emergency repair in fields	B	Further survey shall be done to examine the necessity and Specification
(6) Forklift, 2t	1 unit	(6) Forklift, 2t	Transportation of machinery parts	A	
(7) Reach forklift, 1t	2 units	(7) Reach forklift, 1t	mobilization of spareparts within warehouse	D	

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Application Form for Grant Aid		Preliminary Study Stage			Remarks
Components	Qty	Components	Purpose of Use	Priority	
Hiring service activity					
1. Facility					
(1) Machinery shelter		(1) Machinery shade	Machinery parking	A	
(2) Fuel supply and car washing		(2) Fuel supply and car washing	Washing of machinery Supplying fuel for machinery	A	
2. Equipment					
(1) Tractor 110hp, 4WD w/ Cabin	20 units	(1) Tractor 110hp, 4WD w/ Cabin	Hiring service machineries for 20 stations	A	Further survey shall be done to examine the detail quantity and specification
(2) Tractor 82hp, 4WS w/ ROP/Canopy	20 units	(2) Tractor 82hp, 4WS w/ ROP/Canopy			
(3) Disk harrow 20"x36, Tandem	10 units	(3) Disk harrow 20"x36, Tandem			
(4) Disk harrow 20"x32, Tandem	10 units	(4) Disk harrow 20"x32, Tandem			
(5) Combine harvester 28hp, head-feeding	20 units	(5) Combine harvester 4-Row, head-feeding			
Administration activity					
1. Facility					
(1) Administration office		(1) Administration office	Operational management for the training, workshop and hiring service activities	A	
(2) Staff office		(2) Staff office			
(3) Customer office		(3) Customer office			
(4) Account office		(4) Account office			
(5) Office equipment		(5)			
(6) Others					
2. Equipment					
(1) Photocopy machine	1 unit	(1) Photocopy machine	Operational management for the training, workshop and hiring service activities	C	
(2) PC desk top	10 units	(2) PC desk top			
(3) PC portable	6 units	(3) PC portable			
(4) Printer ink jet type	4 units	(4) Printer ink jet type	Making and preparation of training test books for trainees	C	
(5) Lecture amplifier set	3 sets	(5) Lecture amplifier set			
(6) Transistor megaphone set	3 sets	(6) Transistor megaphone set			
(7) wagon (4WD)	1 unit	(7) wagon (4WD)	Transportation for the staff to supervise other stations	C	

Application Form for Grant Aid		Preliminary Study Stage			Remarks
Components	Qty	Components	Purpose of Use	Priority	
(8) Pickup track (4WD)	2 units	(8) Pickup track (4WD)	Transportation for the staff to supervise other stations	B	

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Japan's Grant Aid Scheme

The Grant Aid Scheme 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. The Grant Aid is not supplied through the donation of materials as such.

A. Grant Aid Procedure

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

Application (Request made by a recipient country)

Study (Preparatory Study and 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 (the 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 Preparatory Study Team 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.

B. 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

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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 though 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 Japanese consulting firm selected through its own procedure (competitive proposal). The selected firm participates the Study and prepares a report based on 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 between the Basic Design and Detailed Design as well as to avoid any undue delay caused by the selection of a new consulting firm.

C. Japan's Grant Aid Scheme

1) What is Grant Aid?

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.



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2) 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.

3) "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.

4) 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.)

5) 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 of Japanese taxpayers.

6) Undertakings required to the Government of the recipient country

- a) To secure a lot of land necessary for the construction of the Project and to clear the site;
- b) To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site;
- c) To ensure prompt 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 fiscal levies, which may be imposed in the recipient country with respect to the supply of the products and services under the verified

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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;

f) To ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and

g) To bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the expenses other than those covered by the Grant Aid.

8) "Re-export"

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) 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 an authorized foreign exchange 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 design. authority.

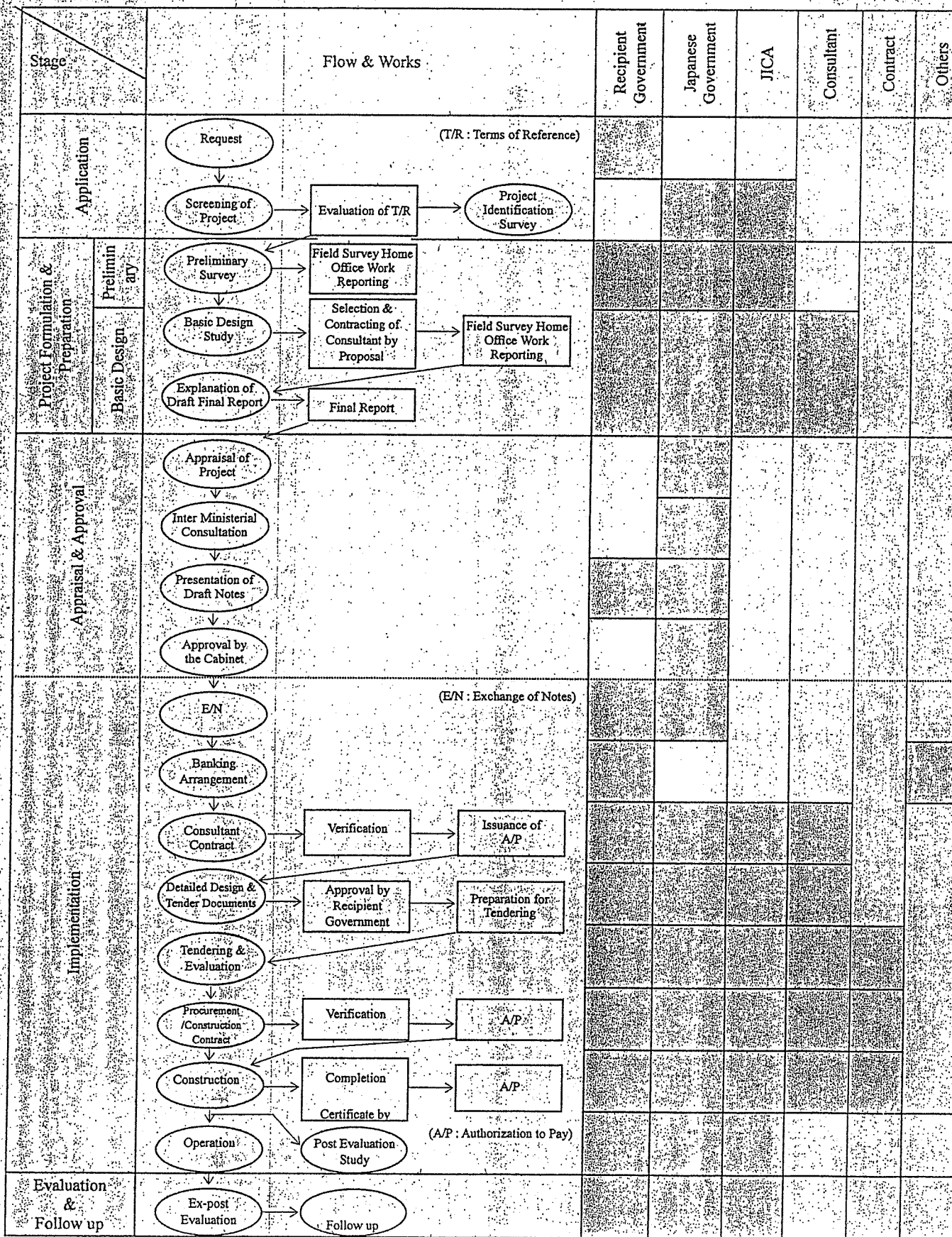
10) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

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FLOW CHART OF JAPAN'S GRANT AID PROCEDURES



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Major Undertakings to be taken by Each Government

	Items	To be covered by Grant Aid	To be covered by Recipient Side
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 building	•	
7	To provide facilities for the distribution of electricity, water supply, 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) Water Supply		
	a. The city water distribution main to the site		•
	b. The supply system within the site (receiving and elevated tanks)	•	
	3) Drainage		
	a. The city drainage main (from storm sewer and other to the site)		•
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	•	
	4) Gas Supply		
	a. The city gas main to the site		•
	b. The gas supply system within the site	•	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		•
	b. The MDF and the extension after the frame/panel	•	
	6) Furniture and Equipment		
	a. General furniture		•
	b. Project equipment	•	
8	To bear the following commissions to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
9	To ensure unloading and customs clearance at port disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient	•	
	2) Tax exemption and custom 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 service 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 contract		•
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant		•
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment		•

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添付資料2 協議議事録

1. JICA エジプト事務所表敬

日時：2005年9月28日（水）9:30～10:30

場所：JICA エジプト事務所

面会者：岡本所長、東所員、永井所員

調査団：渋澤団長、大矢団員、糸魚川団員

協議内容：

調査団より対処方針に基づいて、本調査の目的を説明した後、JICA 事務所より以下の意見及び提案があった。

- ・ ミニッツ添付予定の要請コンポーネントの優先順位付けについて、現在は Quantity の欄を設けているが、数量まで明確に記載しない方がよいのではないか。
- ・ 本案件は、規模は違おうだろうがシンベラウィン農業機械化センターと同等機能を求めていると感じる。
- ・ 昨年度の2KR 調査時に、農繁期には政府主導の農機貸し出しが安く、逆に農閑期には民間による貸し出しが安いことを確認した。

2. 農業省農業機械化局表敬

日時：2005年9月28日（水）11:00～14:30

場所：農業省農業機械化局

面会者：Dr. Osama Mohamed Kamel (First Under Secretary)

Mr. Mohamed Salah Eldin (Machines Dept. Manager)

日本側：渋澤団長、大矢団員、糸魚川団員、岡本所長、東所員、アルフレッド所員、永井所員

協議内容：

日本側よりインセプションレポートに基づいて、調査団の目的及びエジプト側への要望を説明するとともに調査団への協力を依頼し、その後以下の項目について確認した。

- ・ プロジェクトサイトはダマンフル農業機械化センターであり、Beheira, New Land, Wadi Natrouh における各農業機械化ステーションを所掌することになる。
- ・ 責任機関及び実施機関共に農業省農業機械化局である
- ・ ダマンフル農業機械化センターの現状は、研修機能を持たないステーションの状態である。研修については、カフェルシェイクの施設を借りて実施しているが、距離的問題もあり非効率である。また、Beheira 州には当該地域の機械化ステーションを統括する機能を持ったセンターが存在しない。さらに、既存施設の老朽化も著しく、農機修理や日々のメンテナンスに必要な作業に支障が生じている。このような状況下、西デルタ地域の中心として、各地からのアクセスが比較的良好であるダマンフルにおいて、農業機械化ステーションを農業機械化センターに昇格させるのが本案件の目的である。

調査団のスケジュールを確認すると共に、以下の資料について、エジプト側が10月1日（土）までにペーパーにて提出することを確認した。

- ・ ダマンフル農業機械化センターの将来運営計画

- ・ 農業機械化セクターの将来計画
- ・ 要請コンポーネント表（使用目的の記載）
- ・ ダマンフル農業機械化センターと責任機関の関係を記した組織図
- ・ Agricultural Mechanization Strategy Paper
- ・ 質問表の回答
- ・ 環境社会配慮基準を記した資料

3. 在エジプト日本大使館表敬

日時： 2005年9月28日（水）16:00～17:00

面会者：野中書記官

JICA側：渋澤団長、大矢団員、糸魚川団員、岡本所長、東所員、永井所員

協議内容：

調査団より対処方針に基づいて、本調査の説明を行った後、以下の項目についてコメントがあった。

- ・ 現地調査時に半官半民の農業機械貸し出しが行われていると聞いているが、実態は不明。どのような組織が貸し出しを行っているのか確認し、民間との役割分担は明確にする必要がある。
- ・ 小規模の5農家くらいが共同で農業開発銀行からローンし、トラクターを購入している。ローンの返済は約6年で完了する予定らしいが、そのような短期間で返済が済むのであれば、相当な収量が見込まれる。このようなグループ活動がどれくらい根付いているかも確認が必要。

4. ダマンフル農業機械化センター

日時：2005年9月29日（木）10:30～13:00

面会者：Mr. Mohamed Salah Eldin (Machines Dept. Manager)

Mr. Sayed Amer (Undersecretary for Middle Delta)

Mr. Aly El khorsahy (Training Officer, Damanhour AMC)

日本側：渋澤団長、大矢団員、糸魚川団員、兎内団員 Alfred 所員、永井所員

協議内容：

(ア) Sayed氏より以下の説明があった。

- ・ Middle Deltaには現在、Kafr El Sheikh、Beheira、New Land 地域（ゾーンと呼ばれる）が存在し、各ゾーンにおける農業機械化ステーション(AMS)の数及び概要は以下のとおりになる。
- ・ Kafr El Sheikh 地域には8つのAMSと1つの農業機械化センター（AMC）が存在する。AMCにおいてはTraining、Central Warehouse、Central Workshopといった農業機械化センターとして必要な3機能を保有しているが、Beheiraゾーンにおいてはこれら機能を保有するAMCは存在していない（Ghanaklees AMSにはCentral Warehouseを果たすための施設が存在する）。
- ・ ダマンフルAMSには現在Medium Workshopは存在するが、Central Workshopの機能は果たせていない。ただし、Beheira州の真ん中に位置し主要道路へのアクセス

が良好であり、かつ比較的広い敷地面積を保有している同センターの機能拡充を目的として本案件を要請した。

- ・ New Land においては4 AMSが存在する。ダマンフル AMC が拡張された際には、このゾーンもダマンフル AMC の所掌地域となる予定。以上に加え、新たに Beheira ゾーンにおいて3つ、New Land ゾーンにおいて1つの AMS を建設予定。

(イ) Mohamed 氏 (Machines Dept. Manager) よりダマンフル AMC 拡張後の管理体制について以下の説明があった。

- ・ 現在の組織体制では New Land 及び Beheira ゾーンは Middle Delta 管理下にあるが、Wadi Natroun は Gharbia & Minufia 管理下になり、ダマンフル AMC 傘下の各 AMS の管理体制が複雑になる。しかし、同 AMC が拡張された際には、管理体制がしっかり整理されるような組織改編も可能である (例、Middle Delta 管理下に New Land, Beheira, Wadi Natroun を置く)。

(ウ)ダマンフル AMC 及び AMS の概要は以下のとおり。

- ・ 全体的に施設の老朽化は著しい。
- ・ 同じ建物に AMS と AMC の管理部門が存在する (1 階は AMS、2 階は AMC)。
- ・ スペアパーツの管理や農機貸出については細かく帳簿をつけており、維持管理レベルは高い。また、20 年前から使用しているトラクターが現在でも使用可能な状態であり、修理・維持管理技術も高い。
- ・ 調査時はちょうど米の収穫期でもあり、貸出し用トラクター、コンバインはすべて貸出し中。一日中作業を行っても、収穫の需要を満たせていない模様。
- ・ 研修施設は現在保有しておらず、必要に応じて Kafr El Sheikh の研修に参加させて対応している。

5. シンベラウィン農業機械化センター

日時：2005 年 9 月 30 日 (金) 13:00~15:00

面会者：Mr. El Saed Haraz (Undersecretary for North Delta)

Mr. Aly Halima (General Manager, South Dakahlia Zone)

Mr. Mohamed Salah (Manager of Agricultural Mechanization Sector)

Mr. Aly El Kharasky (Beheira Zone, Training Officer)

日本側：渋澤団長、大矢団員、糸魚川団員、山口団員、兔内団員、永井所員

協議内容：

調査団の紹介および調査目的を説明し、シンベラウィン AMC の活動全般に関する情報の提供を依頼した。施設は、竣工後ほぼ20年を経過していて、一部の壁や天井に損傷箇所があったが、比較的良好に維持管理されていた。センターの利用状況や機能の変化により、B/D の施設利用計画と異なる点は次の通り。

- ・ 管理棟2階の秘書室と会議室の2室を研修用の宿泊室(30人宿泊可)に転用
- ・ 1階の食堂を木工で製作済み家具の保管場所に利用。つまり食堂は使われていない
- ・ 食堂用厨房を乳製品製造の作業場に利用

- ・ オペレーター棟の一部を AMS の事務所と部品倉庫 (Central Warehouse) に利用しているが、残りは未利用
- ・ オペレーター棟のロビーをモスクに利用
- ・ 設備室と部品倉庫の間のスペースに木工機材を設置し、家具製作所として利用
- ・ 部品倉庫と修理棟 (Central Workshop) の建物と敷地境界塀とのスペースに大屋根をかけ、木工作業スペースとエンジンオーバーホール、トラクター置場として利用
- ・ AMS 用のワークショップ用の施設 (スチール屋根と壁だけの簡易な建物) をトラクターシェルターの南側に建設

6. 農業省農業機械化局

日時：2005 年 10 月 1 日 (土) 11:00~14:00

面会者：Dr. Osama Mohamed Kamel (First under Secretary)

Mr. Mohamed Salah Eldin (Machines Dept. Manager)

日本側：渋澤団長、大矢団員、糸魚川団員、山口団員、兎内団員、永井所員

協議内容：

Mr. Osama 氏より口頭にて以下の事項を確認。

- ・ ダマンフルにおいては、Hiring Station から Center に格上げするために研修機能とワークショップ機能が必要である。
- ・ 農業省内では様々な研修が行われておりそれを統括する局 (正式名称は不明) が存在するが、農業機械化局内の研修については、農業機械貸出サービスのオペレーションに必要なものがメインのターゲットである。乳製品加工、女性支援、木工作业等の研修は農業機械化促進の概念の中心にはない。
- ・ 要請書に記載はないが、研修棟には宿泊機能は不可欠である。
- ・ Public Sector とは昔存在していた農機貸出しを行っていた国営企業である。しかしながら、現在はすべてが民営化され、また貸出し機能を現在も行っている企業は少なく (もしくは存在しない) Public Sector は存在しない。したがって、農業機械化分野におけるアクターは、農業機械化局と農機を保有している農家 (もしくはグループ) の 2 つである。

Integrated Center とは、Hiring Station (農機貸出し機能)、Central Workshop (修理・整備機能)、Central Warehouse (倉庫機能)、Training (研修機能) の 4 機能を持った設備を言う。現状では、Shimbelawein と Kafr El Sheikh が該当する。

- ・ Center とは、4 機能のうち最低 2 機能 (1 つは研修機能) を持つ設備をいう。現状では、Bani Swaif と Tukh に該当する。

7. 農業・土地開墾省大臣表敬

日時：2005 年 10 月 2 日 (日) 15:30~16:00

面会者：Mr. Youssef Wali (Minister)

Dr. Osama Mohamed Kamel (First under Secretary)

調査団：渋澤団長、大矢団員、糸魚川団員、山口団員、兎内団員

協議内容：

Dr. Osama より本調査団の目的、案件の概要及び調査の進捗を報告した後、大臣より本案件への期待と日本政府への協力依頼が表明された。

8. JICA エジプト事務所報告

日時：2005年10月4日（火）14:00～15:30

面会者：岡本所長、和田次長、東所員、永井所員

調査団：渋澤団長、大矢団員、糸魚川団員、山口団員、兔内団員

協議事項：

ミニッツを中心に調査結果を報告。主な内容及び事務所への依頼事項は以下の通り。

農業機械化戦略ペーパーについては、現在翻訳及び修正を Mohamed 氏が行っているが、オリジナルを事務所員の Alfred 氏が翻訳し内容を確認することで合意した。

Land Preparation においては100%機械化が進んでいるが、他の農作業に関しては完全に機械化されているわけではない。今後、機械化を進めるに当たって政府機関によるてこ入れは必要。また、民間との比較以前に、機械化研修（農民オペレータも対象に含んでいる）に関するニーズも高く、本件を実施するメリットはあると思料する。

研修機能については、ダマンフルにおける研修担当者が各ステーションのニーズを汲み取って作成中であり。ただし、研修の柱は機械化サービスの実施に関するものであるにもかかわらず、提出されたドラフトでは焦点が絞れていない。機械化のための研修である旨の内容がはっきりと確認できない限りは、先に進めるのは難しいと思料する。

先方実施機関作成中の各種資料の送付等、今後のフォローを事務所に依頼した。

以上

添付資料 3 面会者リスト

- 1 . 在エジプト日本大使館
野中一等書記官
- 2 . JICA エジプト事務所
岡本所長
和田次長
東所員
Alfred 所員
永井所員
- 3 . 農業省機械化局本部 (Ministry of Agriculture And Land Reclamation, Agriculture Mechanization Sector)
Dr. Osama Mohamed Kamel The Chairman of the Sector, First Undersecretary
Mr. Mohamed Salah Eldin Manager, Machines Department
Mr . Magdy Hassiny Civil Engineer , General Department of Technical Affairs
Mr . Khaled Abdelghang Assistant Engineer , General Department of Technical Affairs
- 4 . 農業省海外農業関係行政局 (Central Administration Of Foreign Agricultural Relations Asian and Australian Department)
Ms. Marwa Mohamed Fouda Technical Cooperation Specialist
- 5 . 農業省機械化局中部デルタ事務所 (Central Administration of Middle Delta District)
カフエルシェイク農業機械化センター
Mr.El Sayad Amer Undersecretary
Mr.Ibrahim El Menshawy General Director, General Manager Kafr el Sheik Zone
Mr.Sonia El Snosy General Manager, Dept. Manager
Mr.Glal Kottb Dept. Manager, Training officer
Mr.Ibrahim Fayed Follow up Officer
Mr.Mohamed Samy General Manager
- 6 . 農業省機械化局北デルタ事務所 (Central Administration North Delta District)
シンベラウィン農業機械化センター
Eng. El Said Haraz Undersecretary
Mr.Ali ali Halima General Manager
Mr.El Said Montaser Training Center Manager
Mr.Hala AodeI Monham Warkshop Manager
- 7 . 農業省機械化局中部デルタ事務所ベヘイラ地区事務所 (Behira Zone Office)
ダマンフル農業機械化センター
Mr. Ahmed Abd El Mohsen General Manager
Mr. Aly El Kharashy Training Officer
- 8 . ベヘイラ地区農業機械貸し出しステーション
Mr. Mohamed Shbl Damanhour Hiring Station

Mr. Sabry Abdallah Kafr El Dawar Hiring Station
Mr. Sabry Glal Manager of Abis Hiring Station
Mr. Dif El Hofy Manager of El Delegate Hiring Station
Mr. Hamdy Rateb Nagy Manager of Nagib Mahfauz Hiring Station
Mr. Abdel Azim Salah Adm. Manager of Nagib Mahfauz Hiring Station
Mr. Attia Soliman Manager of Ghanaklis Hiring Station

9. ローカルコンサルタント（農村調査現地再委託業務）

Dr. Abudulla タンタ大学社会学部教授

10. マムーラ農業機械訓練センター（Farm Machinery Training Center Maamoura）

Dr. Mohamad Adi Tambri Director General of FMTCM

11. Private Workshop in Damanhour Town（民間修理工場）

Mr. Afesha President

12. 電力会社

Mr. Mohamed Fauzy Electrical Engineer, Operation & Maintenance
West Branch of Beheira Electrical Distribution Company

Mr. Mohamed Raslam 計画敷地の検査担当
West Branch of Beheira Electrical Distribution Company

13. 上水道

Mr. Safwat Mohamed Rageh Engineer, Sector of Research & Planning
Beheira Beverage & Drainage Company

14. ダマンフル市の設計事務所

Mr. Hisham El Gwily Civil Engineer
Design Office & Supervision, Damanhour

添付資料 4

番号	資料の名称	発行機関	形態*	種類					取扱区分	図書館記入欄
				収集資料	専門家作成資料	JICA作成資料	テキスト	その他		
1	The Statistical Year Book 1995-2003	Central agency for Public Mobilization and Statistics	Book						JR・CR()・SC	
2	Agricultural Statistics Volume 1. Winter Crops 2004	MOA, Economic Affairs Sector	Book						JR・CR()・SC	
3	Agricultural Statistics Volume 2. Summer and Nile Crops 2003	MOA, Economic Affairs Sector	Book						JR・CR()・SC	
4	Agricultural Statistics of Machineries (アラビア語)	MOA, Economic Affairs Sector	Book						JR・CR()・SC	
5	農業省機械化局および関連組織図	Agricultural Mechanization Sector	Copy						JR・CR()・SC	
6.	農業省、機械化局予算(2003/2004)	Agricultural Mechanization Sector	Copy						JR・CR()・SC	
7.	Agricultural Mechanization Strategy (2004-20017) (アラビア語及び英訳)	Agricultural Mechanization Sector	Copy						JR・CR()・SC	
8.	Agricultural Mechanization Sector The Fact & the Prospective	Dr.Osama Mohamed Kamel First Undersecretary, MOA.	Copy						JR・CR()・SC	
9.	農業機械化局中部デルタ地域事務所管轄図 (アラビア語)	Agricultural Mechanization Sector	Copy						JR・CR()・SC	

10.	ベヘイラ州農地面積データ (2004/2005) (アラビア語)		Copy						JR・CR()・SC	
11.	ダマンフル気象データ (2003-2005) (アラビア語)	Agricultural Weather station	Copy						JR・CR()・SC	
12.	The Actual Result of Deposit of Counter-Pat fund and Spending for 2KR	Agricultural Mechanization Sector	Copy						JR・CR()・SC	
13.	農業機械化局 研修プログラム例 (アラビア語)	Agricultural Mechanization Sector	Copy						JR・CR()・SC	
14.	Farm Machinery Training Center Maamoura	FMTC	Book						JR・CR()・SC	
15.	Detail index for constructions and drawing (アラビア語)		Book						JR・CR()・SC	
16.	The Law and the Executive Statutes on the Law on Environment	Middle East Library for Economic Services	Book						JR・CR()・SC	
17.	Protection of the River Nile Against Pollution & Drainage of liquid wastes	Middle East Library for Economic Services	Book						JR・CR()・SC	

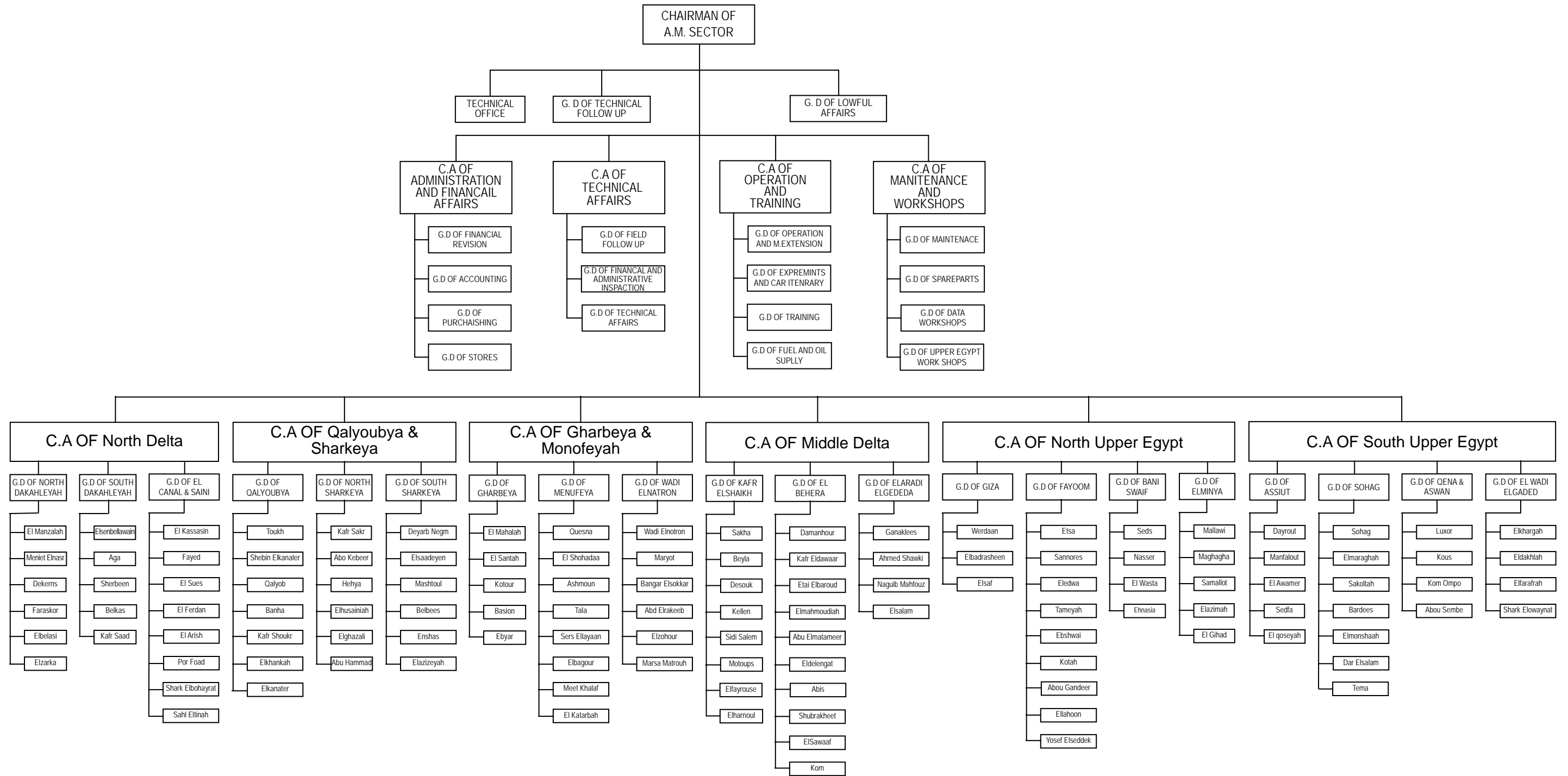
添付資料5 ステーションの設立年及びスタッフ数リスト

Establishment and Number of Staff of Agricultural Mechanization stations

	Agricultural Mechanization Stations	Establishment Year	Number of Staff					
			Engineers	Technicians	Operators	Administrator	Permanent Laborer	Casual Laborer
Behera Zoon	1 Damanhour	1985	7	15	10	9	14	27
	2 Kafr El Dawaar	1996	7	14	3	3	1	19
	3 Etay El Baroud	1998	3	19	41	9	23	49
	4 El Mahmoudiah	1986	4	20	27	13	27	37
	5 Abu El Matameer	1987	1	24	23	6	15	46
	6 El Delengat	1991	4	20	25	14	19	44
	7 Abis	1990	6	11	15	8	7	36
	8 Shubrakheet	1991	2	35	7	9	21	32
	9 El Sawaaf	1998	3	3	4	24	3	11
	10 Kom Hamada	1991	3	6	21	42	12	60
New Land	11 Gana Klees	1987	4	18	17	11	15	35
	12 Ahmed shawki	1990	3	4	31	19	0	61
	13 Naguib Mahfouz	1988	3	14	19	6	4	38
	14 El Slam	1989	2	14	27	11	0	54
Wadi Natroon	15 Wadi Elnatroon	1996	2	11	30	5	8	40
	16 Mariout	1999	2	8	26	6	5	37
	17 Mars Matrooh	1998	0	3	3	7	3	10
	18 Banger Elsokar	1988	3	10	13	6	6	26
	19 Abd El Raqib	1988	2	4	24	7	7	30
	20 Elzohoor	2003	2	3	13	6	4	20
	Sembellawain	1987	40	108	94	60	150	152
	Sakha	1983	15	74	60	55	63	72

農業機械化局収集資料及び農業機械化ステーション質問表回答より集計

ORGANIZATIONAL CHART OF AGRICULTURAL MECHANIZATION SECTOR



添付資料7 プロジェクト対象地域の農業機械貸出ステーション保有の農業機械

Agricultural machinery and implements

	Old Land										New Land				Wadi El Natroon							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Tractor	17	15	15	14	20	14	17	12	10	18	15	24	17	22	18	21	20	16	8	13	40	31
More than 200hp											1	3		1	2	1						
150 < 200hp	1				2	1				2	3	5	3	8	1	4	7	1		2		4
100 < 150hp	3		1	1	3	1	2		1	2	1	5	4	3	4	5	6	5		1	1	2
50 < 100hp	12	12	13	12	9	10	12	10	8	10	8	7	9	9	10	11	7	7	7	9	22	21
Less than 50hp	1	3	1	1	6	2	3	2	1	4	2	4	1	1	1			3	1	1	17	4
Combine	11	9	12	9	12	14	9	7	4	6	2	5	1	8	2	5	6	2		1	22	18
Head feeding type	10	9	9	9	8	18	8	7	4	6											22	11
Conventional type	1		3		4	1	1				2	5	1	8	2	5	6	2		1		7
Chisel Plow	9	7	9	8	12	9	12	5	7	9	8	12	7	11	6	7	8	7	6	7	23	22
Moldboard Plow	5	2	2		2	3	1		2	4	4	10	8	4	4	5	3	4		2	3	4
Moldboard Plow (Reversible)	1	2		1			1		2		3	4	1	1	2	4	1					
Disk Plow					1	1			2	1		1	4	1	2	1	4	4		2		
Subsoiler										1						1	2					1
Disk Harrow	1				6	2			1	1	7	10	4	9	8	10	6	4		4	1	2
Rotary plow (Cultivator)										1	1	3		2	4							
Scraper Mount type																2						1
Scraper Hydraulic type	13	8	7	10	8	7	5	4	5	8	8	13	8	14	7	14	13	6	2	12	12	14
Laser transmit & receiver unit	3	3	3	3	5	4	3	5	3	3	2	11	3	6	3	6	9	6		6	3	7
Inter-row cultivator												2	1		3	1	1					3
Ridger		1		1	3	1	1	1	3	1	2	1						1		3	2	3
Planter for Potato									2	1	1	2	1	2	4	1						
Planter (Pneumatic)												2		1	2	1	1	1				1
Seeder drill	11	7	8	7	8	6	3	3	5	8	6	7	5	6	7	5	3	8	4	3	23	11
Sprayer (mount type)															1							
Sprayer (Trailer type)				1			1	1							1	1	1		4		1	1
Boom Sprayer											1	1	1		1	1						
Thresher for Wheat	2	4	3	4	2	4	1	1	2	2	1					3			3			3
Thresher for Bean																						1
Thresher for Corn															2					1		
Posthole digger	1		1			2					2	2	3	2	2	3	2	2		1		
Digger (Potato, Peanuts)											1		1									
Baler (Press type)	3	1	2	1	3	1	2	1	1	3	3	6	2	5	2	2	2	1			11	5
Chopper	2	2	2		1	1	3	2	1	4		2		4	2					1	2	4
Mower	4	4	3	4	2	4	3	1		6		1		1		2	2				21	1
Excavator	2	1	1	1		1			1	1							1					3

農業農業機械化局収集資料より集計

表の空欄は0を意味する。

- | | | |
|--------------------|----------------------|------------------|
| 1. Damanhour | 11. Gana Klees | 21. Sembellawain |
| 2. Kafr El Dawaar | 12. Ahmed shawki | 22. Sakh |
| 3. Etay El Baroud | 13. Naguib Mahfouz | |
| 4. Mahmoudiah | 14. El Slam | |
| 5. Abu El Matameer | 15. Mohamed Abdel | |
| 6. El Delengat | 16. Wadi el Natron | |
| 7. Abis | 17. Mamout | |
| 8. Shubrakheet | 18. Bahger el Aoukar | |
| 9. El Sawaaf | 19. Adb el Raqied | |
| 10. Kom Hamada | 20. Al Zohour | |

Dr. Naema Ali

SOIL MECH. AND FOUNDATION CONSULTANT

SOIL INVESTIGATION
BORING LOG

CLIENT	الحاج / سعد محمود فرفور	TOTAL DEPTH	25.0 m
PROJECT	عمارة سكنية	DATE	5-Dec-04
LOCATION	شبرا - دمنهور - محافظة البحيرة	DEPTH OF GROUND WATER	1.05 m
BORING NO.	BH 1		

DEPTH IN m	SYMBOL LOG.	DESCRIPTION	BLOWS / 30 Cm								
			0	15	30	45	60	75	90		
0.00		Filling of dirty Yell. gr. Loamy SAND , trace Pebbles									
1.00		Filling of dirty Yell. Silty Clay SAND ,									
2.00		Dark grey Stiff Silty CLAY,									
3.00											
4.00											
5.00											
6.00			Trace Crushed Shells								
7.00			Pocket of fine Sand								
8.00											
9.00			Pocket of fine Sand								
10.00											
11.00			Dark grey Peat / Silty CLAY, pocket of fine sand								
12.00		Light grey med. Silty CLAY / Peat									
13.00		Light gr. Med. Silty CLAY ,									
14.00		Light gr. Clayey Silty /Sandy Clayey Silty ,									
15.00		Light.Gr.Silty Clay, trace Pebbles									
16.00		Light.Gr. Silty fine SAND,									

Fig 2.

SOIL INVESTIGATION
BORING LOG

CLIENT	الجاح / سعد محمود فرفور	TOTAL DEPTH	25.0 m
PROJECT	عمارة سكنية	DATE	5-Dec-04
LOCATION	شبرا - دمنهور - محافظة البحيرة	DEPTH OF GROUND WATER	1.05 m
BORING NO.	BH 1 Con.		

DEPTH II m	SYMBOL LOG.	DESCRIPTION	BLOWS / 30 Cm
17.00		Br. Gr. Fine SAND, few fines, vr.dense	<p>SPT Value</p>
18.00		Br./ grey Fine / Med. SAND, trace fines, vr.dense	
19.00			
20.00			
21.00			
22.00			
23.00			
24.00			
25.00			
		END OF BORING = 250.00 m	
		<p>سعد محمود فرفور مهندس جغرافيا رقم الترخيص 1000 101 ابد السلام ارف ست. جلعن - اлександريه 2004</p>	

Fig 3

添付資料 9 計画敷地におけるインフラ・建設許可関連機関と手続き等

(1) インフラ・建設許可等の関連機関

	関係機関	備考／電話番号等
1 電力	West Branch of Beheira Electric Distribution Company	<ul style="list-style-type: none"> ・計画敷地を管轄する事務所 ・他に市内東地域と地方を管理する事務所がある
2 上水	Beheira Beverage & Drainage Company	<ul style="list-style-type: none"> ・ベヘイラ州の上水道を管理。市街地の地図情報を持ちコンピュータ管理 ・上水引込み申請先
3 下水	ダマンフル市 (City Council) 下水道局	<ul style="list-style-type: none"> ・排水経路や関係の確認が必要 ・排水申請先
4 電話	Damanhour West Central Telephone Company	
5 建設許可関係	ダマンフル市 (City Council) 建築局	<ul style="list-style-type: none"> ・建築設計審査
6 消防	ダマンフル市 Fire & Civil Defense Department	<ul style="list-style-type: none"> ・消防設備審査

(2) 建設関連関係法令と手続き

①「エ」国の建築関連法規・規準等	<p>主要な建築関連法規・規準として、下記の建築、消防、電気、給排水関係の法律がある。規準はUSAの各種規準に加え、BS（英国規格）やDIN（ドイツ規格）等の規準を取り混ぜて作成されている。</p> <ul style="list-style-type: none">• Egyptian Code for Design Basis and Execution of Building（建築）• Egyptian Code for Design Basis and Execution Conditions of Fire Protection of Building（消防設備）• Egyptian Code for Design Basis and Execution Conditions of Electric Connections and Assembling of Building（電気設備）• Egyptian Code for Design Basis and Execution Conditions of Plumbing of Building（給排水設備） <p>法規・規準はエジプト全土に適用される。ダマンフル市には特定の条例や規則等はなく、市での建築審査は国の法規・規準に従う。</p>
②ダマンフル市での建築許可申請手続き	<p>計画施設の建築許可に係る審査は、ダマンフル市の建築局建設局が行い、審査に必要な書類や審査期間は次の通り。</p> <ol style="list-style-type: none">1. 建築審査に必要な書類と提出部数 申請書類：案内図／配置図／平面図／立面図／断面図 構造関係図（柱・梁断面図、配筋図） 地質調査資料（ボーリングデータ、載荷試験データ等） 申請に必要な図面の数：3部（建築局建設局用2部、施主用1部）2. 申請から許可までの期間 約1ヶ月（住宅や研修施設、事務所等建物の種類による審査期間の違いがない）3. 審査手続きの流れ 第1段階：建築局建設局による建設許可 • 建築局建設局に申請書提出 • 建築局建設局が審査後、書類が消防審査に廻される • 消防審査後、建築局建設局へ書類が戻り、問題がなければ、建設許可 第2段階：建設許可後に電力会社、上水道会社、下水道局へ接続・引込み申請を行う。
③インフラ関連調査について	<p>基本設計調査において、上下水道や電気供給の既存整備状況や計画施設への接続位置等に関し、関係機関で事前調査するためには、施主発行の正式な申請書類があったほうがよい。</p> <p>電力会社によると、計画施設への電気供給ルートの検討する場合、申請受理後現地調査を開始し、1日、2日で結論がでる。検討依頼には、正式な申請書（施設計画概要を含む）が必要である。</p>

(1) 建設資機材の調達状況

Procurement Survey of Equipment and Materials

Date: Oct 2, 2005

資機材	国内調達		第3国調達	
	現地生産品	国内流通輸入品		
Architectural Work				
Portland cement	○			
Sand	○			
Gravel for concrete	○			
Reinforcing steel bar	○			
Form board		○		
Structural steel	○	○		
Light guage steel	○	○		
Brick	○			
Concrete block	○			
Porcelain tile	○			
Terrazo block	○			
Plywood	○	○		
Timber	○	○	ロシア、フィンランドから輸入	
Roof tile	○			
Steel door	○			
Aluminium door & sash	○	○	アルミ型材は輸入	
Wooden door & sash	○	○	原材料は輸入品	
Finishing hardware	○	○		
Glass	○			
Paint	○			
Floor paint (epoxy resin)	○	○		
Floor hardner (colour-crete)	○	○		
Plumbing & Mechanical Work				
PVC (polyvinyl chloride) pipe	○	○	イタリア、米国から輸入	
Metal pipe	○	○		
Piping material	○	○		
Sanitary fixture	○			
Water faucet	○	○		
Air-conditioning Work				
Air-conditioner	○		○	
Exhaust fan (Pressure fan)	○		○	
Electrical Installation Work				
Panelboard	○		○	
PVC conduit tube	○		○	
Electric wire/cable	○	○	○	
Lighting fixtures	○		○	
Switch/receptacle	○	○	○	
Transformer	○		○	
Generator		○	○	
Fire extinguisher	○			

凡例 ○: 調達先

Cairo/Damanfour/Alexandria

(2) 主要建設資材の価格 (2005年9月)

資材	単価	
	聞取り先A	聞取り先B
1 セメント	400 LE/ton	350 LE/ton
2 砂	25 LE/m ³	20 LE/m ³
3 砂利	60 LE/m ³	85 LE/m ³
4 鉄筋	3650 LE/ton	3000 LE/ton
5 鉄骨	4000 LE/ton	4000 LE/ton
6 コンクリート	—	100 LE/m ³
7 レンガ (250x120x60)	160 LE/1000pcs	150 LE/1000pcs
8 コンクリートブロック (400x200x120)	1200 LE/1000pcs	—
9 合板 (1200x2400x12 国産)	120 LE/枚	—
(1200x2400x12 輸入品)	160 LE/枚	—
10 木材 (フィンランド産)	1800 LE/m ³	—

※ 砂、砂利の価格は採取地と建設場所の距離により価格が異なる

聞取り先A：農業機械化局

聞取り先B：ダマンフル市の建築設計事務所

(3) 施工業者リスト (農業機械化局の建設工事を請負っている業者)

会社名	電話
1 Ficto Egypt	7812108
2 Engineering Mmahmoud Alea	3030797
3 Said Hasanen	7455398
4 American Egyptian for Trade and Construction	4021205 / 4073055
5 El Ahram Egypt for Construction and Engineering	5802707
6 L Nour for Construction Engineering	2610421 / 4050474
7 Ali El Kharat for Construction	5731087
8 El Hegaz for General Construction	2974595 / 2973603
9 El Hamed for Construction Engineering	4109561 / 4118298
10 Mohamed Mohsen Mohamed El Refai	012238703 / 06832334
11 Mohamed Kamal Moursi	101654867 / 7610694
12 El Hashyya for Construction Engineering	3039148
13 El Karera for Construction Engineering	4017237
14 El Nazela for General Construction	0123467665 / 3840197

資料入手先：農業機械化局

(4) 設計・コンサルタント会社等

会社名	住所
設計・コンサルタント会社	
1 Arabic Office of Design & Engineering Consulting	Madinot, Nasr, Abassia, Cairo
2 Arab Consultants (Maharm Bakhom)	Cairo
3 Egyptian Center for Engineering Consultings	Shirif Street, Cairo
4 Engineering Office of Civil Construction (Hamdy Khamis El Hoshy)	Rahibat Street, Damanhour
5 Soil Mech. And Foundation Consultant	101 Abd El-salam Aref St. Gleem-Alex
地質調査会社	
Engineering Office of Consulting & Reseaches P.D Samir Shalaby	22 Metwally El Shaarawy St. from King Fisal St., Giza

資料入手先：農業機械化局

リストー1

National Research Center

For Housing and Building

N	EGYPTIAN CODE	M.D *	PARTS	PRICE LE
1	Soil mechanics , design and implementation , 2001	139(2001)	11	110
2	Dictionary of expressions of soil , mechanics and foundation engineering		1	10
3	Works of urban and rural roads , 1998	157-66(1998)	10	100
4	Foundations of design and conditions of implementing building works , 1994	351(2004)	1	20
5	Foundations of design and conditions of implementing electric conduction for building	172(1994) 16(2004)	10	100
6	Egyptian code for air condition and cooling	139(2004)	3	60
7	Foundations+D17 of design and coditions of implementation for protecting construction from firing (part 1)	152(1998)	1	10
8	Requirements of service system for building to prevent danger of fire (part 2)	154(2000)	1	10
9	Alarm and detecting systems of fire (part 3)	260(1999)	1	10
10	Design and implementation of constructions of reinforced concrete	98(2001)	1	20
11	Design aids with examples according to egyptian code	98(2001)	1	20
12	Detail index for constructions and drawing	98(2001)	1	10
13	Lab testing index for concrete material	98(2001)	1	20
14	Steel construction	279(2001)	1	10
15	Design and implementation of water piping net and drainage	286(1990)	1	10
16	Foundation of design and conditions of implementation of healthy structures engineering in the building (part 1)	334(2002)	1	10
17	Water feeding and drianage water treatment works in the small hausing aggregations (part 2)	135(1999)	1	10
18	Hot water feeding and swimming basins works (part 3)	149(1999)	1	10
19	Preparation of kitchens - hospitals and getting ride of litter (part4)	140(2001)	1	10
20	calculating the constructional bearings forces and building work	367(2003)	1	10
21	Foundations of design and conditions of implementation of electric and hydraulic lefts in the building (arabic)	167(1997)	1	10
22	Foundations of design and conditions of implementation of electric and hydraulic lefts in building (english)	82(1994)	1	10
23	F+D17 foundations of design and condition of implementation of water pumping (drainage) (volume 2)	168(1997)	1	10
24	Foundations of design and conditions of implementing treatment works (drainage) (volume 2)	169(1997)	1	10
25	Foundations of design and conditions of implementing pure water stations (drinking water) (volume 3)	52(1998)	1	10
26	Foundations of design and conditions of implementing water pumps (drinking water) (volume 3)	53(1998)	1	10
27	Design and testing foundations of implementing external and internal plastering	454(1991)	1	5
28	Egyptian code for design of external spaces and building for disabled	303(2003)	1	10

* payment : cash or by chique after adding 10% sale tax

* M. D (Ministrial Decision)

リストー 2

*nal Research Center
Housing and Building*

N	EGYPTIAN CODE	M.D *	PARTS	PRICE LE
1	Characteristics of architectural carbentary works	207(1994)	1	10
2	Characteristics of alumetal works	220(1994)	1	10
3	Characteristics of healthy construction works	205(1994)	1	10
4	Characteristic floor and marble work	206(1994)	1	10
5	Characteristics miosture and water isolation works	205(1995)	1	10
6	Characteristics of painting works	207(1995)	1	10
7	Characteristics of concreate and rienofraced concrete work	206(1995)	1	10
8	Characteristics of cutting and fill works	204(1995)	1	10
9	Characteristics of general expenditures and financial necessities	256(1995)	1	10
10	Characteristics of archeatural iron shaping works	166(1997)	1	10
11	Characteristics of plastering works	164(1997)	1	10
12	Characteristic of thermat isolatio works	176(1998)	1	10
13	Characteristics of electericity works (part 1,2)	173(1998)	2	20
14	Contract of engineering consultancy services for studing and design	221(1994)	1	10
15	Contract of engineering consultancy services for implementation supervision	223(1994)	1	10
16	General conditions for contracting works	222(1994)	1	10
17	Contract for design and implementation	246(1999)	1	10
18	Contract for engineering consultancy services for studing , design , and continous supervision for implementation	165(1997)	1	5

* payment : cash or by chique after adding 10% sale tax

• M. D (Ministrial Decision)

資料入手先： 農業機械化局

添付資料 12 農業機械化局の全国の研修センターリスト

6 TRAINING Centers

	研修センター名	センターの機能
1	Sembellawain	Training
		Central workshop
		Central waerhouse
		Hiring station
2	Kafr El sheikh	Training
		Central workshop
		Central waerhouse
		Hiring station
3	Tukh (Qalubya)	Training
		Central Workshop
		Hiring station
4	Qaluyb (Qalubya)	Training
		Hiring station
5	Seds(Banisuaif)	Training
		Hiring station
6	Shark El Owinat	Training
		Hiring station

農業機械化局資料より

添付資料 13 農業機械貸出ステーションリスト

Beheira	1	Damanhour	N . El Sharqeya	51	Diarb Negme	El Mimia	101	MaGhaGha
	2	Kafr El Dawaar		52	El Saadieen		102	Samaloutt
	3	Etag El Baroud		53	Mashtool El sooq		103	Mallawi
	4	El Mahmoudiah		54	Belbeas		104	El Azima
	5	Abu El Matameer		55	Enshass		105	El Gehad
	6	El Delengat		56	El azizia	Assiut	106	Dairoutt
	7	Abis		57	El qassasieen		107	El qussia
	8	Shubrakheet		58	Faide		108	Manfalowt
	9	El Sawaaf		59	El Soese		109	El Awamer
	10	Kom Hamada		60	El Ferdan		110	Sodefa
New land	11	Gana Klees	Canal &Saini	61	El Areesh	Sohag	111	Dar El Salam
	12	Ahmed shawki		62	Boor Saaide		112	El Maragha
	13	Naguib Mahfouz		63	Sharq El bohairat		113	El Monshaa
	14	El Slam		64	El Ra`ad		114	Sohag
Wadi el Natron	15	Mohamed Abdel		65	Jelbana		115	Saqalita
	16	Wadi el Natron		66	Sahle El Tina	116	Bardiees	
	17	Mamout		67	Quesna	117	Ttama	
	18	Bahger el Aoukar		68	Meet Khalaf	Qena& Aswan	118	Oouss
	19	Adb el Raqied		69	El Bagour		119	El Oxour
	20	Al Zohour		70	Sers El laian		120	Komoumbo
Kafr El shikh	21	Sakha	El Menufeya	71	Ashmoon		121	Edfo
	22	Beyla		72	El Shohadaa		122	Abo Somboul
	23	Dosoq		73	Tala	El Wadi El Gedid	123	El Kharga
	24	qllin		74	Berket El Sab`a		124	El Dakhela
	25	Sidi Salem		75	El Khatatba		125	El Farafera
	26	Motobass		76	TouKh		126	El owinat
	27	El fairoz		El qalyoubeya	77		Qalyoub	
	28	El hamool			78	Benha		
El gharbeya	29	El Mahala	79		Shbeen El qanater			
	30	El santa	80		Kafer Shouker			
	31	Qutor	81		El Khankah			
	32	Basyon	82		El qanater El khairia			
	33	Ebiar	Giza		83	El Baderasheen		
S. El Daqahleya	34	El Manzala			84	El saffe		
	35	Menyt El Nassr		85	Werdan			
	36	Dekernes		86	El Aiatt			
	37	El Balasi		87	Bani Salama			
	38	Faraskour	El fayoum	88	Etssa			
	39	El zarqa		89	Sannoures			
N. El Daqahleya	40	El Senbellawain		90	El Edowa			
	41	Aga		91	Ttamia			
	42	Sherbeen		92	Ebshway			
	43	Belqass		93	Qouta			
	44	Kafer Saad		94	Yousof El sedieq			
S. El Sharqeya	45	Kafer Saqer		95	El Lahoon			
	46	Abo Kebeer	96	Abo Gandeer				
	47	Hehia	Bani suef	97	Sedes			
	48	El Hasania		98	Nasser			
	49	El Ghazaly		99	Ehnasia			
	50	Abo Hammad		100	El wastta			

出典：農業機械化局

添付資料 14 農業機械貸出サービス料金表

Agricultural Mechanization Sector PRICE LIST 2004

Type of service	Service classification	Measuring unit		Price including tax (LE)	
		Hour	feddan	Hour	feddan
Plowing	Plowing (first phase) with medium size tractor	16	20	17.6	22
	Plowing (second or third) with medium size tractor	16	16	17.6	17.6
	Plowing with tractor from 93-110 hp (first phase)	36	24	39.6	26.4
	Plowing with tractor from 93-110 hp (second phase)	36	20	39.6	22
	Plowing with tractor from 110-150 hp	46		50.6	
	Plowing with tractor from 150-200 hp	55		60.5	
	Plowing with tractor over 200 hp	66		72.6	
Mould board plow	Plowing with mould board plow with medium size tractor		40		44
	Plowing with mould board plow with tractor 93-110 hp 3 board		46		50.6
	Plowing with mould board plow with tractor 110-150 hp	46		50.6	
	Plowing with mould board plow with tractor 150-200 hp	55		60.5	
	Plowing with mould board plow with tractor over 200 hp	66		72.6	
	Plowing with reversible mould board plow with tractor up to 180 hp	120	60	132	66
Sub Soiler	Sub soiling with 1 shank + medium size tractor(spacing 1 m between rows)		30		33
	Sub soiling with 1 shank + medium size tractor(spacing 1/2 m between rows)		50		55
	Sub soiling with 2 shank + tractor 150-200 hp (spacing 1m between rows)		40		44
	Sub soiling with 2 shank + tractor 150-200 hp (spacing 1/2 m between rows)		80		88

Type of service	Service classification	Measuring unit		Price including tax (LE)	
		Hour	feddan	Hour	feddan
Harrowing	Disk harrow with medium size tractor	20		22	
	Disk harrow with tractor 93-110 hp	36		39.6	
	Disk harrow with tractor 110-150 hp	46		50.6	
	Disk harrow with tractor 150-200 hp	60		66	
	Disk harrow with tractor over 200 hp , 52 disks	70		77	
Leveling	Leveling with hydraulic scraper 8 feet with medium size tractor	18		19.8	
	Leveling with scraper 10 feet with tractor 93-110 hp	36		39.6	
	Leveling with scraper 12 feet with tractor 110-150 hp	46		50.6	
	Leveling with scraper 12-14 feet with tractor 150-200 hp	55		60.5	
	Leveling with scraper 14 feet with tractor over 200 hp	66		72.6	
Laser leveling	Laser leveling for 1 tractor from 110-150 hp + scraper 12 feet	60		66	
	Laser leveling for 2 tractor from 110-150 hp + scraper 12 feet	120		132	
	Laser leveling for 1 tractor from 93-110 hp + scraper 10 feet	50		55	
	Laser leveling for 2 tractor from 93-110 hp + scraper 10 feet	100		110	
	Laser leveling for 1 medium size tractor hp + scraper 8 feet	40		44	
	Laser leveling for 2 medium size tractor hp + scraper 8 feet	80		88	
	Laser leveling for 1 tractor from 150-200 hp	70		77	
	Laser leveling for 2 tractor from 150-200 hp	140		154	

Type of service	Service classification	Measuring unit		Price including tax (LE)	
		Hour	feddan	Hour	feddan
Scrapping & Ridging	Scrapping and ridging with medium size Tractor	16		17.6	
	Ridging with medium tractor		16		17.6
	Potato marker (tractor 150-200 hp)	65		71.5	
Broadcasting	Broadcasting chemical fertilizer with broadcaster 300-400 kg.	16		17.6	
	Broadcasting chemical fertilizer with wheeled broadcaster + tractor up to 100 hp	50	20	55	22
	Broadcasting manure + medium size tractor (minimum 4 hours)	25		27.5	
	Broadcasting manure + tractor 93-110 hp, (minimum 4 hours)	36		39.6	
Drilling	Rice transplanting (with trays)		150		165
	Drilling with seed drill		14		15.4
	Mechanical planter + medium size tractor		18		19.8
	Pneumatic planter + tractor up to 110 hp		36		39.6
	Potato planter 2/4 row with cups + tractor up to 110 hp		50		55
	Potato planter 2/4 row with belts		100		110
	Trailer for potato transportation		100		110
Irrigation	Mobile irrigation set (minimum 4 hours)	10		11	
Spraying	Mounted motor sprayer + small tractor (minimum 4 hours)	11		12.1	
	Trailed motor sprayer without tractor (minimum 4 hours)	8		8.8	
	Spraying boom		15		16.5

Type of service	Service classification	Measuring unit		Price including tax (LE)	
		Hour	feddan	Hour	feddan
Rotary Cultivation	Inter row cultivator (rate not exceed 1.5 hr/feddan) + small tractor	16	24	17.6	26.4
	Orchard cultivation with small tractor up to 50 hp	16	40	17.6	44
	Soil conditioner + tractor	22		24.2	
	Soil conditioner + 93-110 tractor	40		44	
	Soil conditioner + 110-150 hp tractor	50		55	
	Soil conditioner + 150-200 hp tractor	60		66	
	Soil conditioner + over 200 hp tractor	70		77	
Mowing & Shredding	Grape cultivator (tractor 16 hp)		40		44
	Mower + small or medium size tractor	18	36	19.8	39.6
	Forage harvester		180		198
	Disk mower mounted on tractor	22	40	24.2	44
	Crop stalks shredder (stationary + medium size tractor)	22		24.2	
	Shredding stalks with fly mower + medium or over medium size tractor		36		39.6
Harvesting	Haulm topper		36		39.6
	Potato digger 2 row		100		110
	Potato digger with side conveyor (without trailer)		150		165
	Pea nut digger		100		110
	Soya bean thresher + small tractor	14		15.4	
	Threshing & cleaning, wheat, rice or other crops	18		19.8	
	Harvesting rice with combine		168		184.8
	Harvesting wheat and other crops in new lands area, under center pivot		100		110
	Harvesting wheat and other crops in the valley		120		132
Balling	Trailed pea nut combine		180		198
	Cotton harvester		500		550
	Balling wheat straw & other crops (without sisal thread)		36		39.6
	Balling rice straw (without sisal)		40		44
Ditching	Balling straw by bale		0.4		0.44
	Rotary baler		80		88
	Hydraulic ditcher (tractor 93-110 hp)	36		39.6	

Type of service	Service classification	Measuring unit		Price including tax (LE)	
		Hour	feddan	Hour	feddan
Heavy Equipment	Cleaning with big excavator > 90 hp	55		60.5	
	Cleaning with small excavator up to 90 hp	45		49.5	
	Wheeled excavator	40		44	
	Excavator + hydraulic hammer	120		132	
	Wheel loader	45		49.5	
	Loader mounted at medium size tractor	22		24.2	
	Loader mounted at small size tractor	16		17.6	
	grader	45		49.5	
	Bulldozer	70		77	
	Motor grader	45		49.5	
	Fork lift (3 ton)	25		27.5	
	Fork lift (5 ton)	35		38.5	
Transporting	With trailer 4 tons (minimum 4 hours)	24		26.4	
	With trailer 8tons (minimum 4 hours)	36		39.6	
	Low bed trailer 3 axle, 25 ton loading , towed by agricultural tractor	60		66	
	Low bed trailer 3 axle, 35 ton loading , towed by agricultural tractor	70		77	

農業機械化局作成資料

添付資料 1 5 農業機械化局保有の農業機械

The machines and implements in Agricultural Mechanization Sector, 2005

Description	Q'ty
Tractor	2,532
More than 200hp	11
150 < 200hp	115
100 < 150hp	236
50 < 100hp	1,478
Less than 50hp	692
Combine	687
Head feeding type	564
Conventional type	105
Others	18
Rice Transplanter	65
Plow	1,619
Chisel Plow	1,303
Moldboard Plow	249
Moldboard Plow (Reversible)	15
Disk Plow	52
Sub-soiler	78
Disk Harrow	154
Rotary plow (Cultivator)	484
Scraper	1,938
Scraper Mount type	1,261
Scraper Hydraulic type	549
Paddling-Scalper	124
Scraper Others	4
Laser transmit	149
Inter-row cultivator	133
Ridger	302

Description	Q'ty
Planter/Seeder	978
Planter for Potato	34
Planter (Pneumatic)	27
Planter (Mechanical type)	28
Seeder	889
Sprayer	79
Sprayer (mount type)	8
Sprayer (Trailer type)	51
Sprayer (Knapsack type)	2
Boom Sprayer	18
Thresher	418
Thresher for Wheat	350
Thresher for Bean	2
Thresher for Corn	66
Digger	151
Posthole digger	104
Digger (Potato, Peanuts)	47
Baler	524
Baler (Press type)	513
Baler (Round type)	11
Chopper	287
Mower	644
Mobile Workshop	2
Excavator	52
Loader	29
Bulldozer	18
Grader	

農業機械化局資料「The Machines and Implements in Agricultural Machinery Sector,2005」を纏めたものである。