

CHAPTER 6
EXECUTION OF PROJECT

CHAPTER 6 : EXECUTION OF PROJECT

6-1 Scope of Construction Work and Period

6-1-1 Apportionment Scope of Construction Work

During its stay in Egypt, the Basic Design Study Team for the Production of High Quality Seeds Project in Egypt held discussions with the staff in charge at the Egyptian Ministry of Agriculture on the apportionment of the construction work between the Egyptian side and the Japanese side, and an agreement was reached.

(1) Site No. 1

Construction of greenhouses	Egyptian side:	Preparation of the site Clarification of connection points for electric power and water supply
	Japanese side:	All construction aside from the foregoing; guidance in use, including trial operation
Research	Egyptian side:	Preparation of rooms for installation
	Japanese side:	Installing instruments research instruments Connection of electric power, water supply and drainage

(2) Site No. 2

Construction of
greenhouses

Egyptian side: Preparation of site

Electric power lead-in to the
site (assurance of necessary
capacity)

Japanese side: All construction aside from
the foregoing; guidance in use,
including trial operation

(3) Site No. 3

Construction of
greenhouses

Egyptian side: Preparation of site

Assurance of water for
irrigation

Assurance of temporary road
for construction from the
Delta Highway to the site

Obtaining permission for
building temporary bridge
across the canal

Japanese side: Construction of greenhouses,
attached warehouse and office

Installation of facilities for
irrigation water

Laying of temporary road for
construction

Machines for cultivation, soil
sterilizer, sprayer

(4) Site No. 4

Seed cleaning
facility

Egyptian side:

Removal of existing machine
not in use

Removal of damaged air-
conditioning equipment for
existing warehouse

Transfer of building under
repairment

Obtaining samples of seeds
for cleaning and from 10 to
100 liters each of various
seeds for trial operation

Assurance up to the building
of electric power of required
capacity

Japanese side:

Installation of seed
cleaning equipment

Installation of air-conditioning
equipment for warehouse

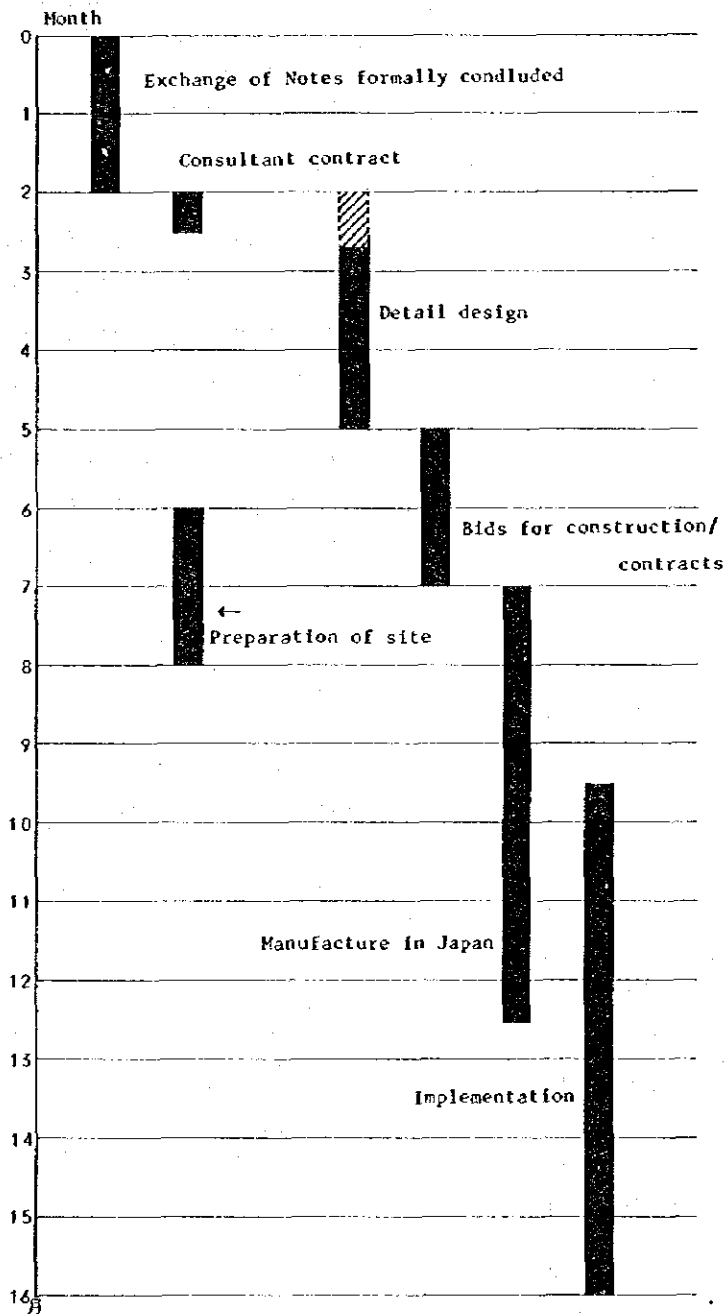
Repairment of building

Wiring for secondary electric
power

Guidance in use, including
trial operation

6-1-2 Construction Period

The implementation schedule of the construction plan is assumed to be as follows:



6-2 Operation and Maintenance

Implementation of this plan is divided into four locations from Site No. 1 to Site No. 4. All of them are under the direct control of the Vegetable Research Department. These facilities are being operated at the present time and the condition of operation is shown in Table 6-7. By imagining what the situation will be when the expansion of the facilities has been realized, studies have been carried out as follows:

6-2-1 Operation Plan

The plan of operation at the different sites is assumed to be as follows:

(1) Site No. 1

The present personnel will operate the greenhouses and use the machinery and tools for inspection and experiment. No additional factors are considered. The upkeep budget for the facility is shown in Table 6-3.

(2) Site No. 2

The greenhouses will be operated directly by the personnel of the Vegetable Research Department. That is seemed to be sufficient for upkeeping the expanded facility, when compared with the present cultivation which is shown in Table 6-7, however, an increase of personnel might be required because of the following factors:

- * Increase of work because of the rotation of crops in the greenhouse.
- * Need of personnel for maintenance and control of the temperature adjustment equipment.

It is assumed that the crops to be cultivated in the greenhouses will be selected by the personnel of the department in accordance with occasions. For reference, the estimated annual production volume of Basic Seed and the amount of Breeder's Seed and are necessary for this are shown in Table 6-1. The use of greenhouses is, in principle, for crosspollination propagated crop. Additionally the upkeeping budget for the site is shown Table 6-4.

Table 6-1 Annual Amount of Breeder's Seed and Basic Seed

	Basic seed Kg/Year	Breeder's seed Kg/Year	Amount of basic seed production Kg/10a.Year	Amount of basic seed production Kg/Green-house, Year
*Water melon	10,000Kg	14.3Kg	35Kg	11.6Kg
*Cucumber	2,000	5.3	30	9.9
*Squash	2,000	10.0	40	13.2
Tomato	1,000	0.8	25	8.3
Eggplant	25	30 g	30	9.9
Sweet pepper	250	0.5Kg	20	6.6
Okra	3,000	8.0	150	49.5
Pea	60,000	2100.0	100	33
Broad bean	2,000	80.0	100	33
Cow pea	14,000	420.0	100	33
Bean	60,000	2000.0	120	39.6
Lettuce	20	20 g	20	6.6
*Cabage	50	75 g	40	13.2
*Califlower	60	120 g	30	9.9
*Radish	1,000	4.0Kg	100	33
*Turnip	500	0.6Kg	80	26.4
*Spinach	500	6.0	100	33
*Carrot	1,000	2.8	60	19.8

* Cross pollinated propagation crop

(3) Site No. 3

The greenhouses will be operated, in principle, by the present personnel but as can be seen in the following model of the rotation of crops (Table 6-2), it is necessary for planting of seeds, transplanting, growth, cultivation and other preparations to be carried out efficiently. For this, an increase of temporary personnel will be needed. The machinery for cultivation, soil sterilizer and crop sterilizer is installed for the purpose of increasing the yield in the limited greenhouse area.

In the crops for which the greenhouses will be used, it is expected that there will be a rotation between cole herbs, which carry much danger of crossing, and other crops, but as shown symmetrically in Table 6-1, it will not be sufficient to attain the scheduled annual amount of Basic Seed.

The upkeeping budget for the facility is shown in Table 6-5.

Table 6-2 Cultivation Model for Basic Seed Production in Site No. 3

Crops	1	2	3	4	5	6	7	8	9	10	11	12	Cultivation No. of House	Amount of Seed sowing	Amount of Seed harvesting	Sufficiency for annual production
Garbage			█										3	60g	40kg	80%
Squash					●			█	█				3	200g	40kg	8.5%
Radish											○		10	1,300g	330kg	33%
Cucumber					●			█	█				10	260g	100kg / 150kg	7.5%
Cauliflower									●				6	120g	60kg	100%
Watermelon					●			█	█				6	100g	70kg / 140kg	1.4%
Turnip											○		10	300g	260kg	52%
Squash					●			█	█				10	650g	130kg	
Spinash													6	120g	60kg	12%
Watermelon					●			█	█				6	100g	70kg	
Carrot									○				5	280g	100kg	10%
Cucumber													5	130g	50kg	

○ Direct sowing
 ● Sowing in nursery-bed
 █ Transplanting
 █ In house
 █ In nursery-bed
 █ Harvesting

(4) Site No. 4

It is possible for the seed cleaning facility to be operated by the present personnel and there are no special factors to be added. By acquiring skill in the operation of the equipment, sufficient capability can be displayed. The upkeeping budget for the facility is shown in Table 6-6.

Table 6-3 Management and Operation for the Dokki Lab. Site No.1

(L.F.)

Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Remarks
Item														
Working staff Salary														
PHD	800	800	800	800	800	800	800	800	800	800	800	800	9,600	2 persons
S.I	600	600	600	600	600	600	600	600	600	600	600	600	7,200	2 persons
Total	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400	16,800	
Budget for Supply														
Electric power	238.1	195.7	176.2	170.5	204.8	221.2	235.71	238.1	212.0	197.6	147.5	195.3	2,432.7	Air cond. for G.H. 97.300 kWh/year
Water	p 5.58	5.04	5.58	5.4	5.58	5.4	5.58	5.58	5.4	5.58	5.4	5.58	p 65.7	Irrigation for G.H. 44 m ³ /year
Electric power	11	11	11	16.5	25.3	11	11	11	16.5	25.3	11	11	171.6	Use for Seed Inspection 6870 kWh/year
Water	p 4.42	4.96	4.42	4.6	4.42	4.6	4.42	4.42	4.6	4.42	4.6	4.42	p 54.3	Use for Seed Inspection 36 m ³ /year
Total	249.2	206.8	187.3	187.1	230.2	232.3	246.8	249.2	228.6	223.0	158.6	206.4	2,605.5	
Upkeeping, Maintenance	40	40	40	40	40	40	40	40	40	40	40	40	480	
Grand Total	1689.2	1646.8	1627.3	1627.1	1670.2	1672.3	1686.8	1689.2	1668.6	1663.0	1598.6	1646.4	19,885.5	

Note) Price of Electric Power 2.5P/kWh.

Water 1.5P/m³

Kerosene 9.0P/l

Table 6-4 Management and Operation for the Dakki farm Site No. 2

(L.E.)

Item	Month	1	2	3	4	5	6	7	8	9	10	11	12	Total	Remarks
Working staff Salary	MSC	400	400	400	400	400	400	400	400	400	400	400	400	4,800	2 persons
	BSC	150	150	150	150	150	150	150	150	150	150	150	150	1,800	1 person
	PL.	196	212	237	286	386	575	653	653	576	215	196	171	4,356	
	Total	746	762	787	836	936	1,125	1,203	1,203	1,203	1,126	765	746	721	10,956
Fertilizer Soil sterilizer Crops sterilizer		5		8	16		27			15	19	10		100	
		6	6	6	12	12	31			18	25	12		128	
		4	4	4	4	4	4	4	4	4	4	4	3	47	
Total	15	10	18	32	16	62	4	4	4	37	48	26	3	275	
Budget for supply Electric power Water Kerosene		3.5	3.1	2.9	88.8	96.0	98.0	122.6	124.0	104.9	87.6	2.3	2.5	736.2	29,500KWH/year
		2.1	2.0	2.3	3.8	3.7	3.6	4.4	4.4	3.9	3.5	2.0	1.9	37.6	2510m ² /year
		2.8	2.3	2.1								1.7	2.3	11.2	1240ℓ/year
	Total	8.4	7.4	7.3	92.6	99.7	101.6	127.0	128.4	108.8	91.1	6.0	6.7	785.0	
Upkeeping maintenance	135	135	135	135	135	135	135	135	135	135	135	135	135	1,620	
Grand total	904.4	914.4	947.3	1,095.6	1,186.7	1,423.6	1,469.0	1,470.4	1,406.8	1,039.1	913.0	865.7	13,636		

Table 6-5 Management and Operation for the Qaha farm Site No. 3

(L.E.)

Item	1	2	3	4	5	6	7	8	9	10	11	12	Total	Remarks
Working staff salary														
W.S	150	150	150	150	150	150	150	150	150	150	150	150	1,800	2 persons
PL.	1,675	1,675	1,675	1,545	3,010	5,245	5,245	5,245	5,245	815	1,095	1,675	34,145	
Total	1,825	1,825	1,825	1,695	3,160	5,395	5,395	5,395	5,395	965	1,245	1,825	35,945	
Fertilizer														
Soil sterilizer					363	113				125	206	47	854	
Crops sterilizer	340	340	340	297	285	340	340	340	340	119	272	340	3,693	
Total	340	340	340	297	991	600	340	340	340	403	747	448	5,526	
Fuel	4	3.6	4	3.4	3.4	3.9	4	4	3.9	1.4	3.1	4	42.7	472l/year
Parts of cultivator	53	53	53	53	53	53	53	53	53	53	53	53	636	
Plastic film for exchange	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	20,400	
Total	1,757	1,756.6	1,757	1,756.4	1,756.4	1,756.9	1,757	1,757	1,756.9	1,754.4	1,756.1	1,757	21,078.7	
Grand total	3,922	3,921.6	3,922	3,743.4	5,907.4	7,751.9	7,492	7,492	7,491.9	3,122.4	3,748.1	4,030	62,549.7	

Table 6-6 Management and Operation for the Seed cleaning station Site No. 4

(L.E.)

Month Item	1	2	3	4	5	6	7	8	9	10	11	12	Total	Remarks
Working staff salary														
MSC	100	100	100	100	100	100	100	100	100	100	100	100	1,200	1 person
PL.	800	800	800	800	800	800	800	800	800	800	800	800	9,600	"
Total	900	900	900	900	900	900	900	900	900	900	900	900	10,800	
Budget for supply														
Electric power	11.8	5.4	5.4	5.4	241.9	8.6	241.9	5.4	5.4	20.4	39.8	80.6	672	26,875KWH/year
Water	0.81	0.06	0.06	0.06	16.2	0.585	16.2	0.06	0.06	1.35	2.655	5.4	43.5	2,900m ³ /year
Total	12.61	5.46	5.46	5.46	258.1	9.185	258.1	5.46	5.46	21.75	42.455	86.0	715.5	
Upkeeping maintenance	400	400	400	400	400	400	400	400	400	400	400	400	4,800	Package materials
Grand total	1,312.61	1,305.46	1,305.46	1,305.46	1,558.1	1,309.185	1,558.1	1,305.46	1,305.46	1,321.75	1,342.455	1,386.0	16,315.5	

Table 6-7 Area cultivated for vegetable seed production and wage (1981)

1 fed. = 0.42 ha.

Name of the farm	Total area (fed)	Vegetable breeding area (fed)	Working staff number & title	Permanent staff number	Casual labourers number & salary & wage	Budget for upkeeping the veg. production	Total budget L.E.
QAHA	40	21	2 1,800	6 3,600	15 13,500	16,800	35,700
BAHTIM	32	25	2 1,800	5 3,000	20 18,000	10,000	32,800
DOKKI*	12	2	2PHD 9,600	5 3,000		800	33,800
			2S.I 7,200				
			4MSC 9,600				
			2BSC 3,600				
SIDS	750	20	1MSC 2,400		20 18,000	8,000	28,400
E.L. GEMEIZA	1,800	25			25 22,500	10,000	32,500
KEFR SELEMEN	350	20			20 18,000	8,000	31,100
SABARIA	320	10	1S.I. 3,600	5 3,000	5 4,500	4,000	31,100
			2MSC 4,800				
			4BSC 7,200				
NOBARIA EXP.	200	5	1BSC 1,800		10 9,000	2,000	12,800
SEED CLEANING STATION			1MSC 1,200	10 9,600		4,960	15,760
TOTAL	3,504	128					248,860

* Supervising the whole programme of vegetable seed production in different farms.

Salary: PHD 400, S.I. 300, MSC 200, BSC 150, PERMANENT LABOUR 50, CAUSAL LABOUR 75 L.E. per month.

6-2-2 Maintenance Control

Based on the operational plan, a calculation was made of the maintenance cost of the personnel and material required for maintenance control of the facilities. Upon making a comparison with Table 6-7, which shows the present situation, it is believed that certain additions should be recognized based on this plan.

(1) Sites No.1, No.2

Since the facilities at Site No.1 and Site No.2 are directly managed by the Vegetable Research Department, they were added up together.

		(L.E.)
Personnel Cost	Inspectors, Researcher, Technician	-- 7 23,400
	Personnel to Operate Greenhouses	-- 7 4,356
(Sites No.1, No.2)		
Energy Cost		3,390
Materials and Repair Cost	(including agricultural chemicals and research materials data)	2,375
		Total 33,521

(2) Site No. 3

Personnel Cost	Technicians	1,800
	Permanent and Casual workers--	57 34,145
Energy Cost		43
Materials and Repair Cost		26,562
		Total 62,550

(3) Site No. 4

Personnel Cost	Technicians	-- 1	1,200
	Permanent workers	-- 10	9,600
Energy Cost			715
Materials and Repair Cost			4,800
		Total	16,315

**CHAPTER 7
EVALUATION**

CHAPTER 7 : EVALUATION

What effect will this project have?

In A.R. of Egypt, a high quality seed production scheme is evaluated one of the important pillars of the "General Strategy for Agriculture, Irrigation and Security 80/81-84/85" in other words, the National Five-Year Plan. This plan has however, just launched to implement. It is therefore anticipated that Japan's cooperation will provide a good stimulus for the remarkable development and improvement of vegetable horticulture in Egypt, and that the basic research data on vegetable seeds will be far accumulated through the research activities with expected Japan's Grant Aid Laboratory Equipment in Seed Technology Section, Vegetable Research Department.

(1) Facilities for Production of High Quality Vegetable Seeds

In the production of vegetables, even if seeds are of the same variety, it will often create a problem just because the harvested quantity and quality of produce are varied by farm. As stated in the foregoing, this is a problem that can be practically ignored if high-quality seeds are employed to cultivate vegetable production. If Japan's cooperation be realized for the facilities of high-quality seed production at Dokki and Qaha, the Vegetable Research Department will produce internationally leveled breeder's and basic seeds, which would be applicable to distribute in public, under the concentrated administration inside the compounds of the Vegetable Research Department at Dokki.

The factors that will contribute to the production of high quality vegetable seeds in Egypt are:

- (1) Stabilization of productivity and increase of yield.
- (2) Enhancement of the quality of seeds.
- (3) Perfection of cultivation control.

- (4) Labor saving.
- (5) Providing materials for breeding.

(2) Facility for Cleaning and Inspection of High-Quality Seeds

It was pointed out that whether the used seeds are good or bad would affect the harvested quantity and quality of the produce and that the distributed seeds would not be sufficient enough to meet in the international level in the country. In order to remedy the above disadvantages it will be quite timely and significant to improve following items if the up-to-date seed cleaning equipment would be installed as she requested under the Japan's grant aid prompt. The advantages to be derived from this will be:

- (1) Enhancement of the quality of seeds.
- (2) Stabilization of the supply of seeds.
- (3) Acceleration of the germination rate.
- (4) Decrease of the seed consumption amount.
- (5) Improved efficiency of cleaning work.
- (6) Operations safety in working.
- (7) Improvement of the cleaning environment.

From the above viewpoints, it can be seen that the present plan is timely and meaningful. If really come true, it will help contribute further to maintain Egypt-Japan friendship in the field of vegetable seed production.

CHAPTER 8
CONCLUSION AND SUGGESTIONS

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The Government of Arab Republic of Egypt, aiming at the development of the national economy, is promoting various measures. In this, agriculture holds a position of special importance. The production of vegetables plays a major role in the solution of such problems as improvement of the people's diet, food self-sufficiency and increased output of agricultural produce for export. Improvement of the production system, increase of harvest and assurance of quality are indispensable conditions. Through the basic design study this time, it is proved that the Project is the nucleus for satisfying the necessary conditions. It has been confirmed that proper operation of these facilities will improve Egypt's production of vegetable seeds to a remarkable degree, thereby proving effective in assuring Egypt's food security. It is expected that the Japanese Government will promptly carry out the measures needed for this cooperation.

This is the first time that Japanese vegetable seed production facilities will be introduced. Their operation and maintenance will require mutual understanding in regard to details. As to the manpower for the operation of the facilities, a transfer from the existing facilities is possible but Japanese guidance is being sought in the phase of operational techniques, including the skilled operation of machinery and tools.

During the discussions held by the Study Team, the Egyptian side expressed the desire for "practical training in Japan of those who will handle the production and cleaning of vegetable seeds." Together with the transfer of technology through the new facilities in Egypt, highly efficient operation and maintenance can be promoted through training conducted in Japan of those concerned with the work.

Big responsibilities will be borne by the Egyptian Government in case this plan is realized. The most important among them have been listed below. It is hoped that, on its part, the Egyptian Government will carry them out in a sincere manner.

- 1) Preparation of the various construction sites and space for the equipment.
- 2) Speedy cooperation in arrangements for the construction plans.
- 3) Cooperation and necessary accommodations concerning design and construction.
- 4) Priority in supply of necessary construction materials and parts.
- 5) Execution of the items to be handled by the Egyptian side.
- 6) Cooperation in promotion of the project.
- 7) Effective operation and maintenance of the facilities.
- 8) Thorough conservation and control of the facilities.

Of the foregoing, understanding is needed in regard to 7) and 8) that assuring the necessary personnel and operating funds is indispensable.

The high-quality seed produced by these Project facilities are only Breeder's Seed and Basic Seed, then the next step for Certified Seed is not included in the scope actually. But in public or private company which produces Certified Seed, it is also necessary to take enough care so as to inherit the superior character of Basic Seed. It is proper to make a technical guidance for them, and not only limiting in the seed branch but also in the stage of farmers who are in charge of vegetable production itself, as stated in the foregoing, it is important especially to be gained better understanding of the consequence and the improvable points according to the vegetable production in Egypt. To prove the Project significant it is fully important to establish the distribution structure all through the country for the vegetable production and to advance the national and farmer's profit. Finally it is strongly desired for the Government of Egypt to make effort for solving problems in the production system of vegetable and also to take a sufficient financial measure for carrying out the policy in a sincere manner.

APPENDIX

- 1. LIST OF MEMBERS OF STUDY TEAM**
- 2. EGYPTIAN GOVERNMENTAL AUTHORITIES CONCERNED**
- 3. ORGANIZATION OF THE MINISTRY OF AGRICULTURE, A.R.E.**
- 4. ITINERARY OF STUDY TEAM**
- 5. MINUTES**

1. List of Members of Study Team

The Study Team, led by Mr. Takejiro Sato, Examiner of the Seeds and Seedlings Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, was composed of the following:

Leader	Mr. Takejiro SATO	Examiner, Seeds and Seedlings Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries
Coordinator	Mr. Yoshihisa KONDO	Senior Project Coordinator, Grant-Aid Department, Japan International Cooperation Agency
Chief Mechanical Engineer	Mr. Hiroshi MORI	Daiken Architects & Engineers
Seed Production Specialist	Mr. Hitoshi OZAWA	Daiken Architects & Engineers
Chief Architect	Mr. Kyoichi KITAMURA	Daiken Architects & Engineers

2. Egyptian Governmental Authorities Concerned

Ministry of Agriculture

Dr. Ali M. El Hossary	Under-Secretary for Engineering Affairs
Mr. Osama Mohamed Kamel	Mechanical Engineer, Under-Secretary of Dr. A. M. El Hossary
Mr. Magdy Nasheed	Engineering Department
Mr. Moustafa Abdel Aleem	Int'l Cooperation Division, Int'l Relation Department, Under-Secretary of Foreign Agriculture Relation

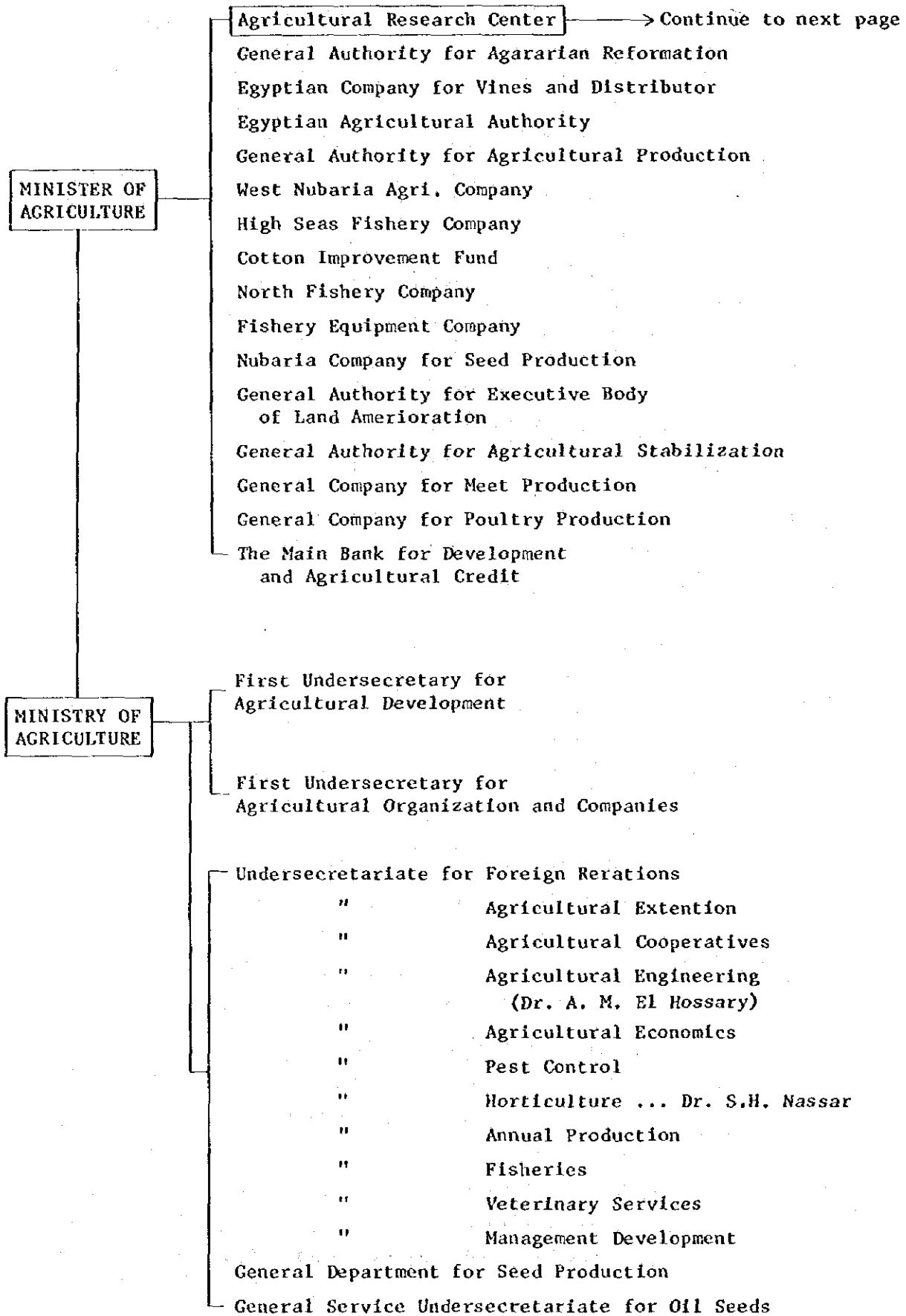
Vegetable Research Department , M O A

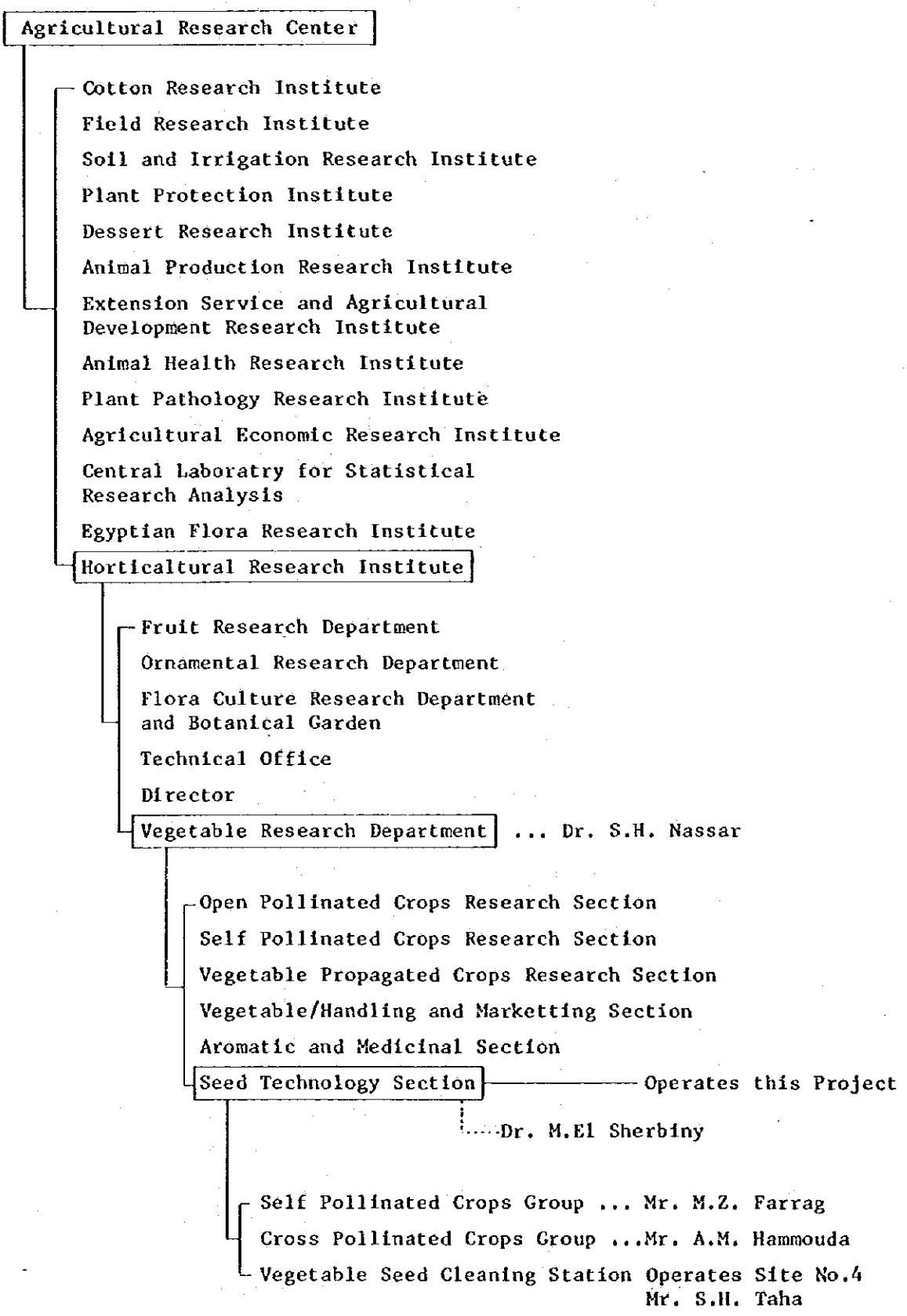
Dr. Sayed Hassan Nassar	Under-Secretary for Horticulture and Director, Vegetable Research Department
Dr. Moukhtar El Sherbiny	Manager, Vegetable Seed Technology Section
Mr. Mohamoud Z. Farrag	Senior Investigator, Vegetable Seed Technology Section
Mr. Ahmed Morsi Hammouda	Investigator, Vegetable Seed Technology Section
Mr. Salah Abd El Rarek	Manager, Qaha Farm
Mr. Saleh Hashem Taha	Manager, Seed Cleaning Station
Mr. Mohamed Sayied Nassar	Vegetable Seed Technology Section

Ministry of Economic and Cooperation

Mr. Mohsan Mohmed Ahmed Sadek	Ministry of Economic and Cooperation
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3 Organization of the Ministry of Agriculture, A.R.E.





4. Itinerary of Study Team

The Study Team conducted a survey of the basic design for 18 days from January 26, 1982. A summary of the Study Team's Itinerary follows:

<u>Date</u>	<u>Day</u>	<u>Description</u>
Jan. 26	Tue.	. Left Tokyo (Narita)
27	Wed.	. Arrived at Cairo. . Courtesy call on JICA Cairo Office: Arrangements for schedule and scope of work . Courtesy call on the Embassy of Japan: Explanation on schedule and Inception Report
28	Thr.	. Courtesy call on Dr. Hossary M.O.A. Arrangements for schedule and scope of work
29	Fri.	. Team Meeting: Confirmation of study items
30	Sat.	. Meeting with Dr. Nassar Vegetable Research Department, M.O.A.: Discussion on scope of the Project . Survey and measurement at Site No. 4, Seed Cleaning Station in Dokki
31	Sun.	. Submission of the interim report to Ambassador Mr. Yamazaki at the Embassy of Japan . Meeting with Dr. Nassar: Discussion on technical matters . Survey at Site No. 2, Seed Farm in Dokki

- Feb. 1 Mon. . Survey in the City: Distribution condition of vegetable seed and collecting seed samples
- . Survey at construction site in the City
- . Meeting with Dr. Nassar: Discussion on technical matters
- . Measurement of Site No. 2, Seed Farm in Dokki
- 2 Tue. . Survey at Barrage: Discussion on the feasibility of the Project experimentation in the Farm
- . Measurement of the candidate site in Barrage
- 3 Wed. . Meeting with Dr. Nassar: Discussion on the site evaluation
- . Survey and measurement at Site No. 3, Seed Farm in Qaha: Discussion on the technical affair for the experimentation of the Project
- 4 Thr. . Meeting with Dr. Nassar: Discussion on the sites evaluation and agreement with Qaha
- . Meeting with Dr. Sherbiny, Seed Technology Section: Discussion on the inspection equipment
- . Team Meeting: Discussion on the survey results
- 5 Fri. . Cropping Survey in Delta
- 6 Sat. . Submission on the draft of Minutes to JICA office and the Embassy of Japan
- . Meeting with Dr. Nassar: Submission and discussion on the draft of Minutes, agreement on confirmation of contents
- . Measurement at Site No. 1 in Dokki
- . Team Meeting: Unification of terminology and confirmation of Site No.

- Feb. 7 Sun. . Meeting with Dr. Hossary: Submission on the
draft of Minutes, agreement of sites evaluation
and contents of Minutes
- 8 Mon. . Receiving check copy of Minutes at M.O.A.
- 9 Tue. . Minutes signed by Dr. Nassar and Mr. Sato attested
by Dr. Hossary
- 10 Wed. . Left Cario
. Arrived at Frankfurt
- 11 Thr. . Left Frankfurt
- 12 Fri. . Returned to Tokyo

5 MINUTES

MINUTES OF THE DISCUSSIONS
FOR
HIGH-QUALITY SEED PRODUCTION PROJECT
IN THE ARAB REPUBLIC OF EGYPT

In response to a request of the Government of the Arab Republic of Egypt for technical assistance of the basic design study on the high-quality seed production project in Egypt, the Government of Japan sent a study team headed by Mr. Takejiro SATO, Examiner, Seeds & Seedlings Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries to Egypt to implement a basic design study from January 27 to February 10, 1982.

The team has held a series of discussions, conducted the field survey, and exchanged views with officials of the Government of Egypt for the high-quality seed production project in Giza, Dokki, Kaha, Egypt.

As a result of the study and the discussions, the Japanese team and the Ministry of Agriculture agreed that the team will complete the final report and submit it to the governments for further study of the implementation of the Project.

The leading issues in the minutes having been confirmed by the Egyptian and Japanese counterparts, are explained in the annexes attached herewith.

In confirmation of mutual agreement, both parties fix our signatures.

Cairo, February 9, 1982.

Sayed Hassan Nasaar

9/2/82
Dr. Sayed Hassan Nasaar
Under-Secretary for
Horticulture & Vegetables
MOA.

T. Sato

Mr. Takejiro Sato
Leader,
Japanese Basic Design
Study Team.

Ali M. El Hossary

Dr. Eng. Ali M. El Hossary
Under-Secretary for
Engineering Affairs
MOA.

ANNEX I

1. The objectives of the project are to produce high-quality seeds for public and private companies in which certified seeds are to yield for distributing them to the farmers (1) by modernizing vegetable seed cleaning units at the Vegetable Research Department, Ministry of Agriculture, Giza and Dokki in Cairo, and (2) by improving vegetable seed production units at Dokki in Cairo and Qaha, Kalubia, Egypt.
2. The Government of Egypt removing the various existing cleaning equipment, very old-fashioned (50 years old) and partially broken, inside the workshop in the premises of the Horticulture Institute, Ministry of Agriculture, Giza, Cairo, Egypt, a new cleaning unit for various vegetable seeds is to be installed with the capacity of 150 tons per year.
3. A set of the cleaning laboratory equipment is to be installed at the unfurnished two lab. rooms of the Vegetable Research Department, Ministry of Agriculture at Dokki, Cairo.
4. Vegetable production units for basic seeds are to be installed at suitable locations, namely, air-conditioned lab-size glass houses with partitions and temperature-control glass houses at Dokki, Cairo, and also large-size plastic houses at Qaha, Kalubia, Egypt as illustrated in ANNEX II.
5. The Vegetable Research Department, Ministry of Agriculture shall be responsible for the management and operation of the facilities/equipment.
6. The outlined description of the facilities/equipment is shown in ANNEX III.
7. The Ministry of Agriculture confirmed that the plan and scale of the facilities may have to be adjusted corresponding to the grant-aid budget to be allocated by the Government of Japan.

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Nassar. T.S

8. The team will describe in the study report including detailed function, size, quantity and specifications of facilities and equipment which are considered to be most suitable for the project.
9. The Government of the Arab Republic of Egypt shall take at its own expenses, necessary measures;
 - 1) To secure land suitable for establishing facilities and installing equipment,
 - 2) To clear and level the site, workshop, and laboratory, if necessary, before the commencement of the construction/installation of the facilities/equipment and to provide to the site, workshop, and laboratory, electricity, water supply, telephone, and any other incidental facilities necessary for the construction, installation, and operation of the facilities/equipment,
 - 3) To obtain in advance all licences or permit required by the provinces/any other authorities for building facilities/installing equipment, if any,
 - 4) To ensure prompt unloading and customs clearance at the port of entry in Egypt and the internal transportation of materials and equipment to their respective site,
 - 5) To provide all expenses and manpower necessary for the operation and maintenance of the facilities/equipment, and
 - 6) To exempt Japanese personnel concerned from taxes, duties, and any other charges & fees which may be imposed on the personnel and any equipment & materials entered into the Arab Republic of Egypt for the purpose of carrying out the services in connection with construction/installation of the facilities/equipment.

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ANNEX II

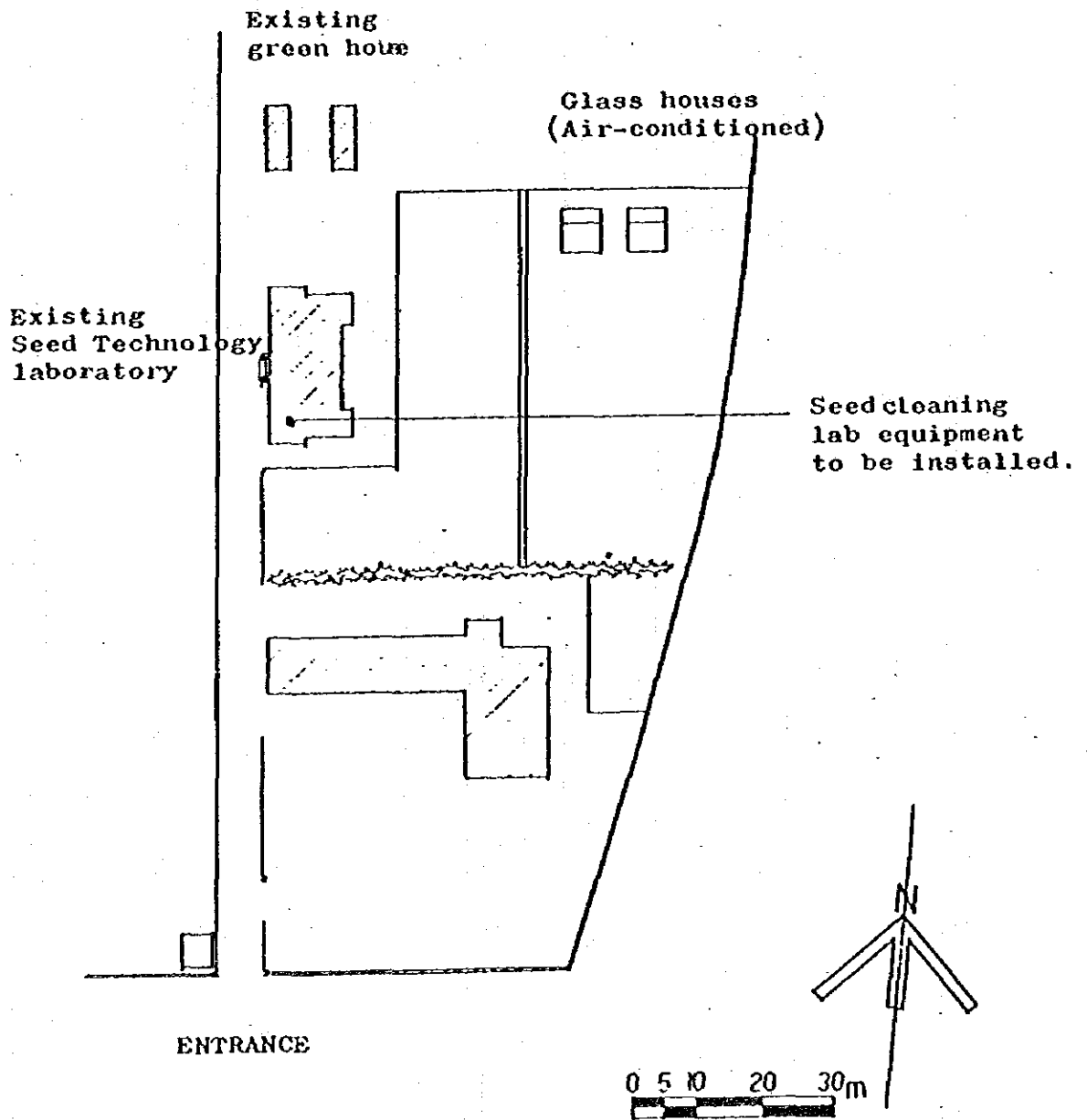
1. Glass houses with partitions (air-conditioned) for breeding sophisticated basic seeds in the premises of the Vegetable Research Department, Ministry of Agriculture at Dokki, Cairo.
2. Glass houses with partitions (temperature-controlled) for breeding simple basic seeds in the premises of the Vegetable Research Department, Ministry of Agriculture at Dokki, Cairo.
3. Large-size plastic houses (fixed type) for multiplying basic seeds at Qaha, Kalubia, Egypt.

Each plan is attached herewith in separate paper.

4. *Suitable farm machineries and tools used in soil preparation and plant protection, as well as soil sterilizers.*

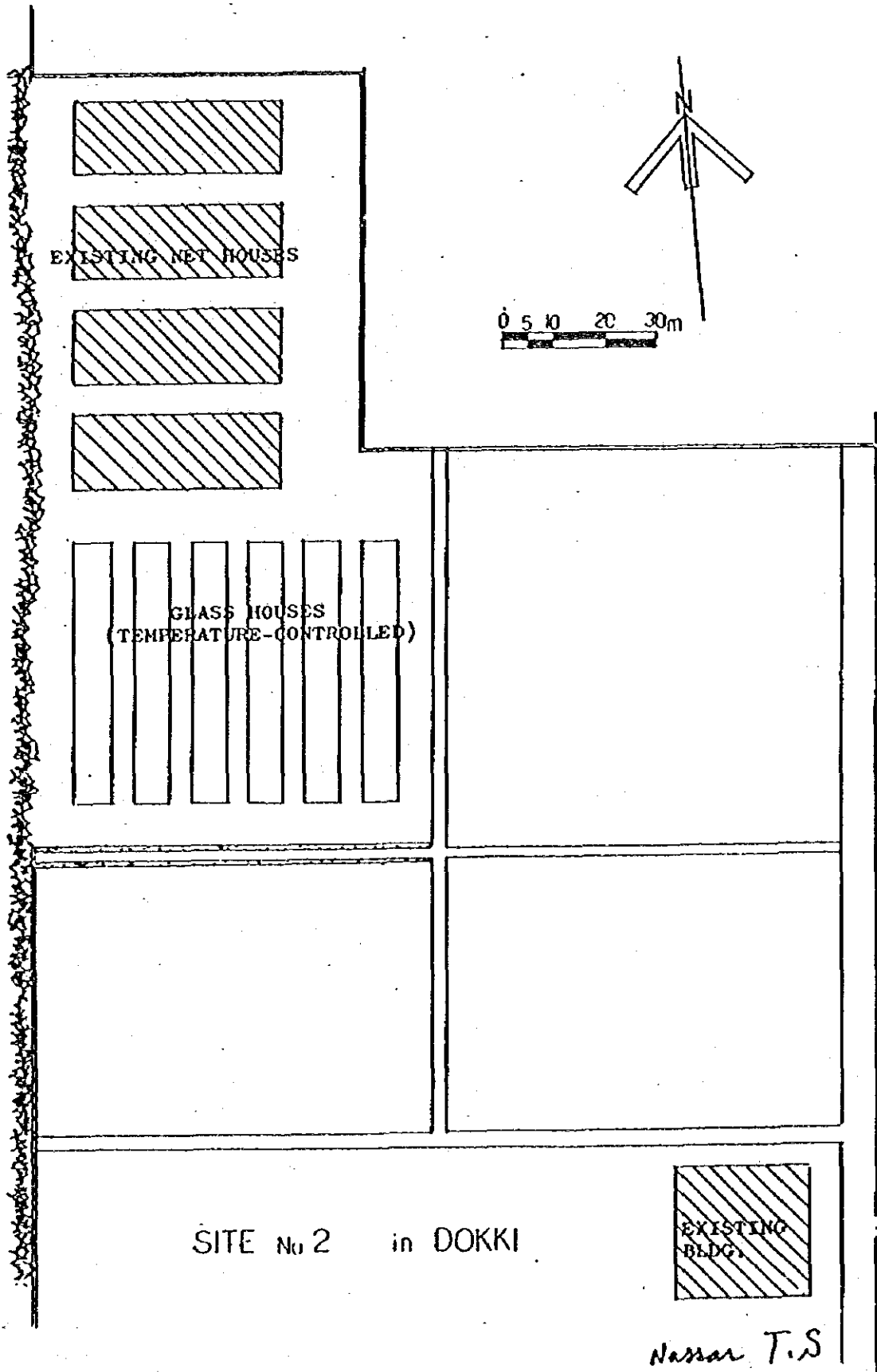
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ANNEX II-1



SITE No 1 in DOKKI

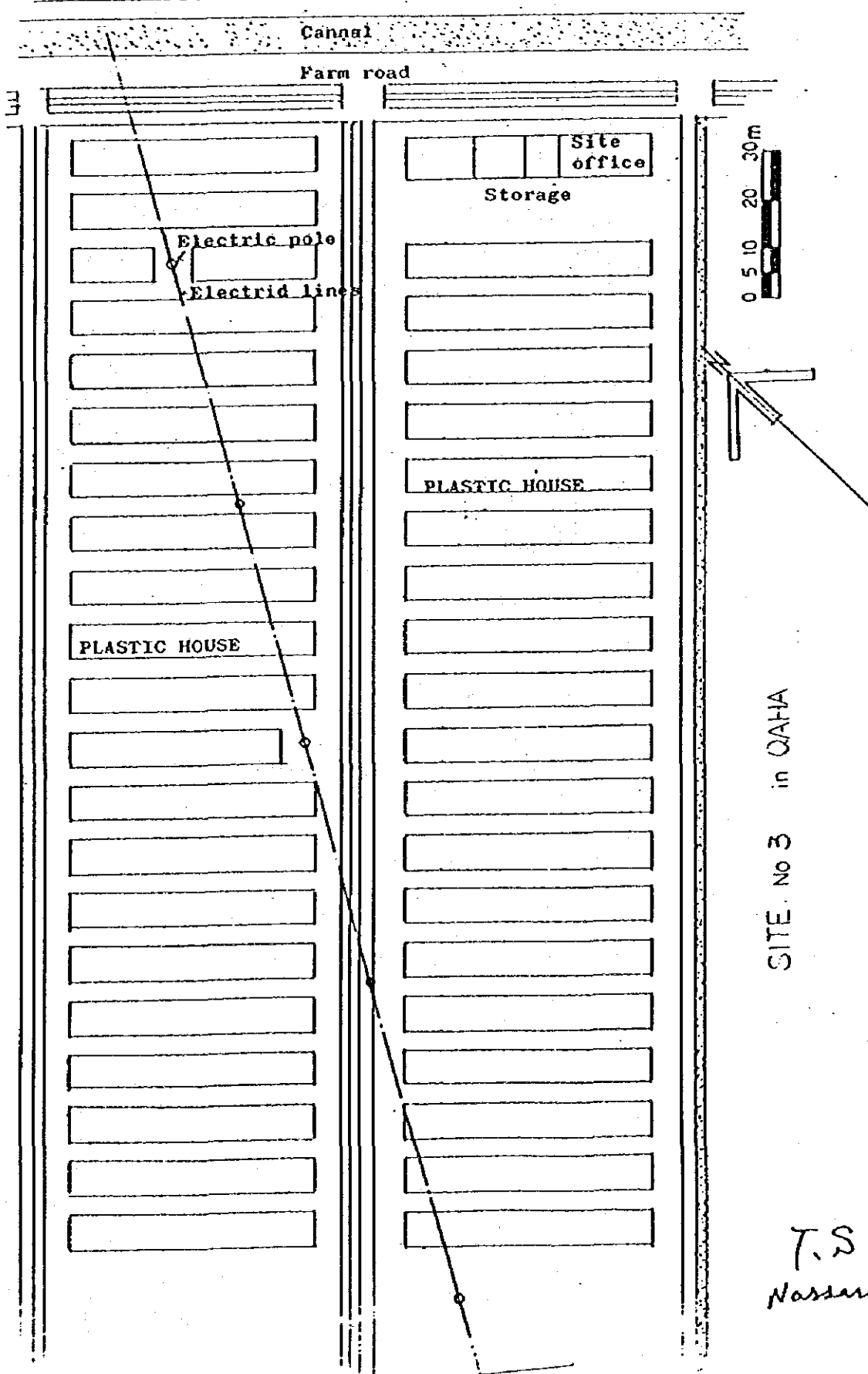
Nasser T.S



SITE No 2 in DOKKI

EXISTING
BLDG.

Nassar T.S



ANNEX III

1. Seed Cleaning Unit One set

To be installed at Giza, Cairo.
The flow chart of the seed cleaning equipment for vegetables is attached herewith in ANNEX III-1 including the workshop plan in ANNEX III-2.

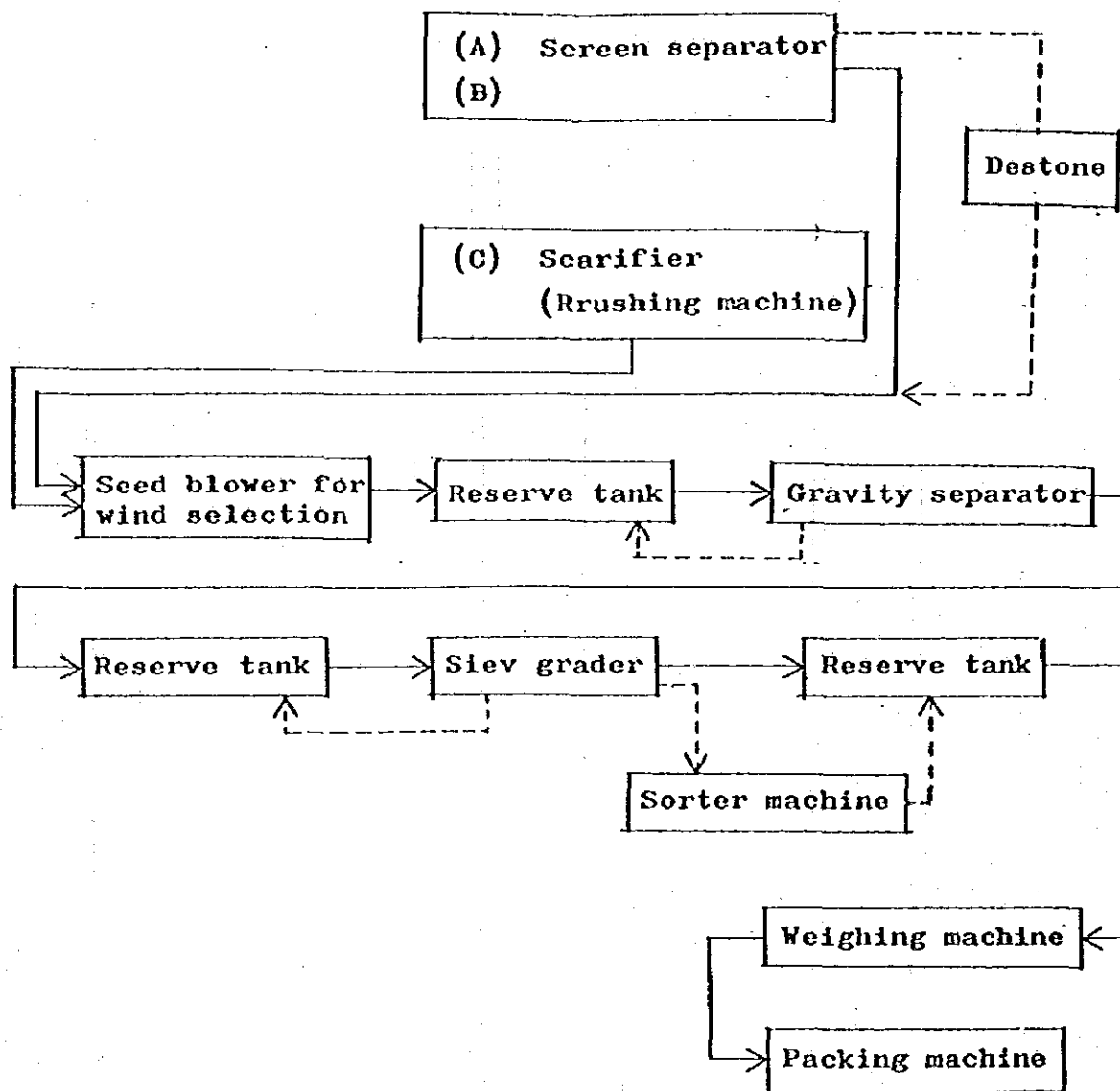
2. Seed Cleaning lab-size Unit One set

To be installed at Dokki, Cairo.

Priority order	Equipment list	Remarks
1	Different germinators *	* (a) For 20-30°C (b) 5°C (c) For past control (seed borne disease)
2	Divider	
3	Counter	
4	Petri-dishes	
5	Germination towels. Bolotter	
6	Microscopes	
7	Scales/Balances	
8	Moisture tester	
9	Oven	130-150°C
10	Weighing dishes for balance	
11	Dessicator	
12	Refrigerator	
13	Sterilizer	
14	A set of sives	
15	Seed blower	
16	R. H. indicator	
17	Thermos sample/get sample plus temperature reader	
18	Magnifier(series).	
19	Fans	
20	Slurry seed treatment	
21	Electric lab mill	
22	Microton/sector Microscope/camera	
23	Washer, driers	
24	Projector for seed inspection	

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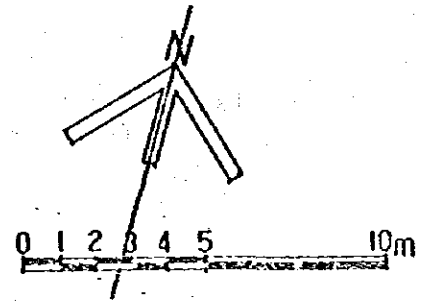
ANNEX III-1 Flow chart of the seed cleaning equipment for vegetables



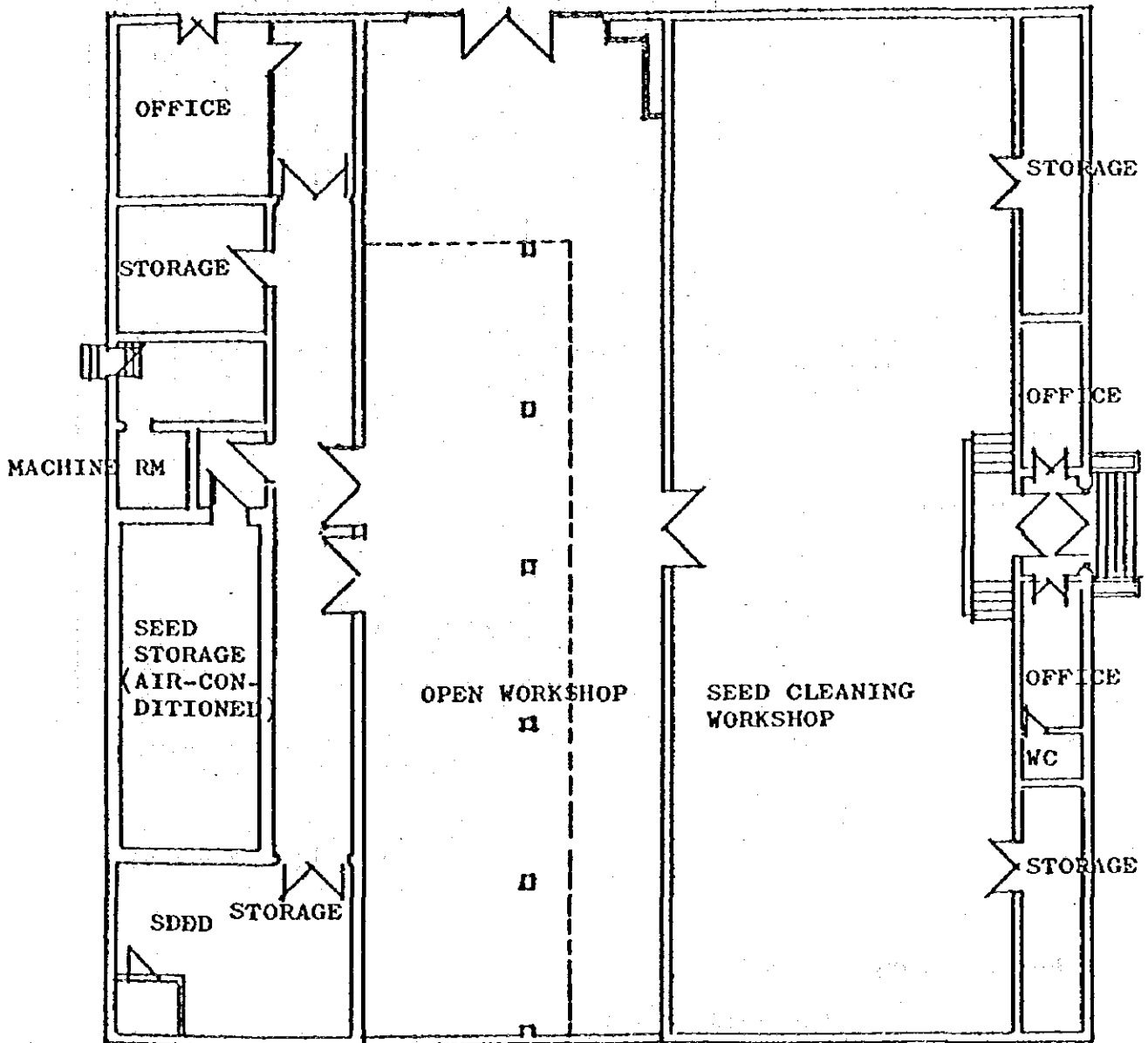
Note: Group of seeds

- Small size seeds ... (A)
- Large-size seeds ... (B)
- Carrot ... (C)

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INLET



SITE No 4 in GIZA T.S

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