ECONOMIC ASPECTS OF LAND TENURE IN EGYPT

By

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A THESIS

Submitted to the School of Graduate Studies of Michigan State College of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Agricultural Economics

1950

P R E F A C E

Before coming to the United States, the author was employed by the Fellah Department of the Egyptian Ministry of Social Affairs. For six years he was responsible for the Department's rural reconstruction program in two of the Rural Welfare Centers established in 1941. While residing in the villages, sharing with the "Fellaheen" their own type of life and studying their different social and economic problems, he became more and more conscious of the importance of the land tenure system and its effects on the living standards of rural people. His interest in this subject has continued to grow and helps explain his decision to write a dissertation on "Economic Aspects of Land Tenure in Egypt."

The study has two objectives:

(1) To analyze the land tenure system prevailing in Egypt, and examine its effect on the country's economy.

(2) To stimulate more interest in and more comprehensive research on the subject of land tenure in Egypt, and to indicate the types of information and data needed for analytical purposes that still need to be gathered and reported in Egypt. This is a secondary objective, but as important as the first one.

In dealing with the major objective, a general background about Egypt is given first. This includes the geographical setting, a historical background and a brief account of the development of the country's economy and the place of agriculture in it. The balance of Chapter 1 is devoted to a discussion of the factors affecting the supply of agricultural land in Egypt.

In Chapter 2, the demographic position of Egypt and the effects of this situation on the demand for land are discussed.

Chapter 3 is devoted to an analysis of the land tenure system in Egypt. The origin and evolution of the land tenure system are described as is the present day situation. With the aid of the limited data available, the economic aspects of the system are then analyzed. The following points are emphasized:

(1) The agricultural ladder and the acquisition of land in Egypt.

(2) Costs, returns and efficiency on different sizes of farms.

(3) Effects of the system on land use and on the national agricultural output.

(4) The agricultural laborers in Egypt.

(5) The standard of living.

(6) The farm tenancy problem.

Possible measures for improving the tenure system are considered in Chapter 4. Chapter 5 is the summary and conclusion of the study.

Lack of reliable data has been a major problem throughout this study and the findings would have been more conclusive had more reliable data been available. The data used have come mostly from census books and other secondary sources. The unpublished investigations of the Fellah Department provided a valuable primary source of data and proved invaluable to the author.

The author wishes to acknowledge his indebtedness and to express his sincere gratitude to all who generously helped in the preparation of this study. He is particularly indebted to the members of his Advisory Committee for their encouragement and helpful guidance; and to Dr. Ralph C. Huston, Dean of the School of Graduate Studies. Dr. Herman J. Wyngarden, Dean of the School of Business and Public Service, and Dr. Lawrence W. Witt, Chairman of the author's Advisory Committee, for giving the author not only the guidance, encouragement and help they give to all their students, but for facilitating matters, at the time when the Egyptian Government for a time cut its aid, so that he could remain in the United States to finish his studies.

To Dr. Raleigh Barlowe, who not only gave generously of his time in reading the entire first draft of this manuscript and making many valuable suggestions, but also was

kind and patient enough to correct and rephrase several sentences, he desires to express appreciation for help and encouragement.

Of his countrymen, the author is particularly indebted to Dr. Ahmed Hussien, former Director of the Fellah Department and present Minister of Social Affairs, for his continuous guidance and encouragement.

To the Staff of the Fellah Department for their supply of most of the first hand data used in the study, and finally to the Fellaheen of "Mahallet Ziad" with whom he worked four years in the village reconstruction program and to whom he owes much of what he knows about the Egyptian village, the author is sincerely grateful.

Hassan A. Dawood

East Lansing, Michigan
February, 1950

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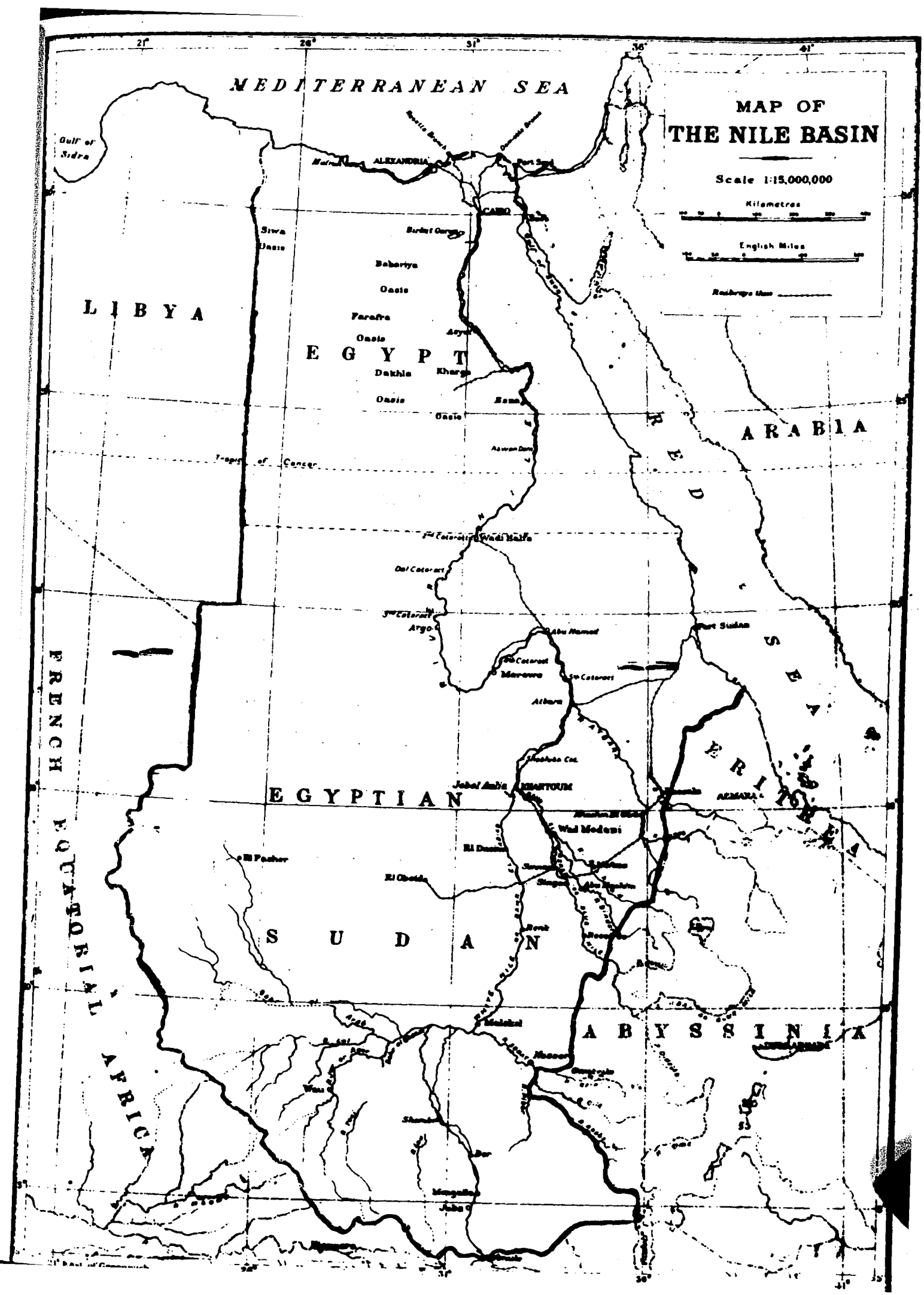
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CHAPTER I

Egypt, A General Background

A. - Geographical Setting

1. Geographic Location

At the crossroads of Africa, Asia and Europe lies Egypt, one of the oldest countries that history has ever known. It is comprised of three distinct parts:

(1.) Egypt proper, which consists of the northeastern corner of the African continent, extending from the Mediterranean Sea southward to parallel of 22° of north latitude, and from the Suez Canal, Gulf of Suez, and the Red Sea westward to about the meridian of 25° of east longitude.

(2.) The Peninsula of Sinia, which geographically is a part of the continent of Asia, and which extends from the Suez Canal eastward to a line joining Rafa on the Mediterranean Coast to Taba near the head of the Gulf of Akaba.

(3.) A number of small islands located in the Gulf of Suez and the Red Sea.

Egypt proper is composed of the Valley and the Delta of the Nile River, which pierces the desert belt that stretches across the Northern Hemisphere from the Atlantic Ocean to the heart of China. Beyond the Nile Valley to the east lies the Arabian or the Eastern Desert; to the west lies the Libyan or the Western

Desert which contains here and there some fertile oases.

The country is bounded on the north by the Mediterranean Sea, on the west by Tripoli and the Sahara Desert, on the south by the Anglo-Egyptian Sudan, on the northeast by Palestine and to the east by the Red Sea.

2. Area

The total area of Egypt is about 386,000 square miles, or more than three times that of the British Isles. Of this area only about 13,500 square miles are cultivable. Canals, roads and date plantations, etc., cover 1,900 square miles; the surface of the Nile, marshes, lakes, etc., account for 2,850 square miles and the rest of the area is just desert. This means that the cultivable area is limited to approximately three percent of the total area of Egypt.[1] This productive area involves around 8,353,421 feddans.[2] For various reasons only about two-thirds of this area is now under cultivation. Table 1 shows the distribution of the productive area in Egypt in 1941.[3]

1/ See Appendix Table 1.

2/ The feddan is the Egypt measure of land area. It equals 1.038 acres.

3/ The figures for the cultivated area in more recent years are:

1943	5,331,189 feddans
1944	5,698,110 "
1945	5,730,323 "
1947	5,822,000 "
1948	5,822,000 "

Table 1. - Distribution of the Productive Area in Egypt*

	Cultivated	Uncultivated	Total
Private ownership	4,989,206	930,096	5,919,302
Government "	158,329	1,384,235	1,542,564
Public Utilities	38,197	853,358	891,555
All Kinds	5,185,732	3,167,689	8,353,421

* Source: Annuaire Statistique de Poche, 1945. Egyptian Government, Ministry of Finance, Department of General Statistic:

Much of the uncultivated land in the Delta is below sea level. Because of the perennial irrigation system, by which two or three crops are obtained from a piece of land per year, the crop area in Egypt far exceeds the cultivated area. While the cultivated area in 1948 was 5,822,000 feddans, the crop area was 9,165,274 feddans. Table 2 shows the seasonal distribution of crops in Egypt.

Table 2. - Seasonal Distribution of Crops in Egypt*

	Average 1935-39	1948
Summer Crops	2,586,985	2,953,111
Winter Crops	3,965,592	4,427,112
Flood Crops	1,665,255	1,700,816
Gardens	63,588	84,235
Total	8,281,421	9,165,274

* Source: Agricultural and Economic Statistics. Bulletin in Arabic by The Department of Agri. Econ. & Statistics, Egyptian Ministry of Agriculture, 1949.

A line drawn just south of Cairo (the capital of the country and the largest city in Africa) divides Egypt into Lower Egypt or the Delta and Upper Egypt or the Nile Valley. This latter part is sometimes divided into two parts. The area from Cairo to Assyut which is called the Middle Egypt, and the area from Assyut to the Anglo Egyptian Sudan which is called Upper Egypt. In 1938 60 percent of the cultivated and 70 percent of the productive but noncultivated lands lay in the Delta.[4/]

3. Topography

The topography of the country is fairly simple. To the south of Cairo the Valley of the Nile is enclosed by rocky cliffs which rise in places to heights of over 300 meters above the river. The arable land of Upper Egypt occupies the flat floor between the river and the bounding cliffs. The width of the Valley varies from less than a kilometer, south of Aswan to more than twenty kilometers between Assyut and Cairo.

To the north of Cairo, the arable land spreads out in the fan shaped formation of the Delta which is a level, richly cultivated plain sloping gently towards the sea. It is formed by secular deposits of alluvial mud carried by the water of the river from the heights of Abyssinia.

The country between the Nile Valley and the Red Sea is known as the Arabian Desert. It is not a vast monotonous plateau like the country on the other side of the river. It presents a great diversity of physiographical features, the most marked one

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4/ Foreign Agriculture, U.S.D.A. June 1941.

being the rugged and high mountains, composed chiefly of igneous and metamorphic rocks, which run parallel to the Red Sea with peaks of over 7,000 feet high. They are much nearer the Red Sea than to the Nile, and the area between them and the Nile is composed of of plateaus of sandstone and limestone, dissected by wadis of great depth and length with some wild vegetation and occasional wells and springs. The southern part of the desert is richer in wells and springs than the northern part.

The Libyan Desert to the west of the Nile constitutes one of the most arid and inhospitable regions of the world. Its surface rocks consist of limestone and sandstone. In the north the limestone predominates while sandstone predominates in the southern part. It contains a number of depressions wherein wells and springs furnish water in sufficient quantity to irrigate small areas and to support populations of several thousands. The Fayum province[5/] which could be considered as a big oasis, although irrigated from the Nile, and the Siwa Oasis lie below the level of the sea. Between these two lies the vast Kattara depression which embraces an area of some 19,300 square kilometers below sea level and descends at its deepest point to a depth of 134 meters below the Mediterranean. The economic possibilities of the Kattara depression as a source of hydro-electric power are being studied.

The ground of the Sinai peninsula is flat and sandy on the Mediterranean coast. It rises gradually to the south for about 250 kilometers into a highly-dissected limestone plateau.

5/ It is located 50 miles southwest of Cairo.

The southern third of the peninsula is composed of rugged granite mountains intersected by deep ravines. Springs and wells are found in fair abundance in Sinai.

The few islands located in the Gulf of Suez and the Red Sea are not of much importance.

4. Soil

One of the chief elements of Egypt's agricultural wealth is soil fertility. As has been mentioned the soil of the Valley and the Delta of the Nile was formed when particles broken off from hard rocks in the upper parts of the Nile by the heavy rain and other weather agents were carried in a state of suspension by the current and deposited in Egypt in the annual floods. As time goes on these annual deposits add to the thickness and fertility of this soil. The Nile[6/] alluvium containing alumina (about 48%) and calcium carbonate (18%) is believed to increase at the rate of 4.5 inches a century. So fine are its particles that at places it becomes almost a stiff clay. It ranges in thickness from 55 to 70 feet, and underneath it lies a series of yellow quartz sands, intermixed with pebbles, gravel and clay, the rocky base of which

6/ The following analysis of matter suspended in the Nile water during flood time, for an average of two years, is given by G. P. Foadan, and F. Fletcher, Egyptian Agriculture, Cairo, 1910.

has not yet been disclosed by borings.[7]

The Egyptian soil is by no means uniform. The heavy soil particles carried by the current are usually deposited first, while the finer particles are carried further. For this reason the Egyptian soil mechanically ranges from a coarse sandy or gravelly to a stiff black soil containing as much as sixty percent clay. The soil of the Delta is mostly of the latter group and is the most productive in the country.

From the chemical point of view, the Egyptian soil is rich in potash, less rich in phosphoric acid and deficient in organic matters and nitrogen. Farmyard manure provides a good source for organic matters but not enough is used to compensate for the exhaustion caused by the increasing use of the perennial irrigation and double and triple cropping practices. Because of this, the agricultural output of Egypt is entirely dependent on the use of large quantities of fertilizers. Sodium and calcium nitrates make up the bulk of the normal imports of fertilizers. They with other nitrogenous fertilizers constitute more than 80 percent of the fertilizer imports. During the second World War Egypt

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Potash	0.53
Soda	0.57
Lime	3.07
Magnesia	2.68
Phosphoric acid	0.25
Carbonic acid	0.73
Oxide of Manganese	0.25
Oxide of Iron and Alumine	25.56
Organic matter	8.54
Insoluble matter and sand	51.54
Total	100.00

7/ Cf. Encyclopedia Brittannica Vol. 8. p.33.

experienced many difficulties in securing its normal supplies of fertilizers. The use of the hydro-electric power of the Aswan Dam in production of fertilizers is expected to care for this situation.

Under the old "basin system" of irrigation[8/] it was easy to maintain fertility without much need for fertilizers. The reason for this was that the rich layer of silt deposited annually by the river on the soil was enough to compensate for the soil constituents lost in the previous crop. Also the short agricultural season permitted a long period of summer fallow.

The steady increase in perennial irrigation has the following disadvantages as far as soil fertility is concerned:

(1.) The soil is deprived of the benefits of the old system mentioned above.

(2.) The cultivation of two or three crops a year under the perennial irrigation system, instead of one crop under the old system, reduces the soil fertility and calls for greater use of fertilizers.

(3.) Spring levels and the water table are raised as a result of the perennial free-flow irrigation system and the depth of the soil is reduced accordingly. This situation can be cured only by extensive drainage.

Soil conservation problems are still of secondary importance to the Egyptian authorities. However, there are many powerful factors working against soil conservation. The more essential

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8/ See section on Water Supply below.

of these are:

(1.) The loss of much valuable mud with the water which pours into the sea during the annual flood season. In Cronchley's estimation, the value of this annual loss is about four million dollars.

(2.) The rising water table.

(3.) The common practice in the Egyptian villages of using much dried manure as fuel rather than as fertilizers.

The problems are of considerable importance and should attract the attention of the Egyptian economists as well as Egyptian soil scientists. Unless something is done on these points, the famous fertility and productivity of the Egyptian soil will continue to diminish.

5. Climate

Part of Upper Egypt is within the tropics, but the greater part of the country is north of the Tropic of Cancer.

Being a big Oasis in a desert area, Egypt naturally has the desert's climate. Thanks to the Nile and the moderating marine influence, however, the country has all the advantages and none of the disadvantages of a desert climate. These three agents, the desert, the Nile and the marine influence work together to give Egypt its peculiar climate, a maximum of dryness and sunshine with a continuous supply of water throughout most of the year. Near the coast the marine influences are felt, but as one goes south this influence diminishes. Thus Alexandria is warmer than Cairo in winter and Suez is warmer than places in

the Nile Valley 500 kilometers farther south[9] while they are cooler in summer.

The winter season which lasts from late in November to early in March is usually short and mild. On the contrary, the summer is hot and long. The mean temperature at Alexandria varies between 57°F. in January, the coldest month and 81°F. in July, the hottest one. At Cairo the mean temperature is 53°F. in January and 84°F. in July. The mean termperature by months on a regional basis is reported in Appendix Table 2.

The relative humidity varies also from place to place with a sharp contrast between the sea coasts and the interior. In the former the air is more humid in summer than in winter, but generally there is not much variation throughout the year. The lowest degree in Alexandria is 67 in December and the highest one is 75 in July. In the interior the degree of humidity varies considerably and it is higher in winter than in summer. In Upper Egypt, the lowest degree is 26 in June while the highest is 51 in January. The relative monthly degrees of humidity on a regional bases is given in Appendix Table 3.

Except in a very narrow strip along the Mediterranean coast, rainfall in Egypt is scanty, irregular and of little economic value. At Alexandria and along the Mediterranean coast rain falls in the winter time with an annual precipitation of 8 inches.[10] This is sufficient for the cultivation of a few crops of grain

9/ Reda Khalil. Food and the Egyptian Population. Doctorial Dissertation, Harvard Un. 1946.

10/ Cf. Encyclopedia Britannica, 1946. Vol. 8 p. 33.

along the coastal strip of land to the west of Alexandria, where river water is not available. This area, which has little significance so far as agricultural production is concerned, at the present time, was famous for its grain and wines in the Roman time. Further south the amount of rainfall rapidly decreases, and south of 31°N it is practically negligible.

At Cairo the annual rainfall approximates less than two inches. In the desert rain falls even more rarely, but from time to time heavy storms burst, causing sudden floods in the narrow ravines. Appendix Table 4 gives the average monthly and annual rainfall in Egypt on a regional basis.

Snow is unknown in the Delta and the Nile Valley, but falls from time to time on the tops of the Red Sea hills and the mountains of Sinai. One of the main characteristics of the climate of Egypt is sunshine. Egypt is sometimes called the country of the sun and the Nile. Its sky is almost clear throughout the year, except on the Mediterranean littoral where it is a little cloudy during the winter season. The duration of bright sunshine on the Mediterranean coast and in Middle Egypt increases from seven hours a day in January to twelve and one-half hours in June[11] In Upper Egypt the duration is longer. Appendix Table 5 shows the mean hours of sunshine monthly on a regional basis.

As has been mentioned three factors have cooperated to give Egypt its peculiar climate namely: the seas, the desert and the Nile. It remains now to show the role which the Nile plays.

11/ Reda Khalil, op. cit.

In the absence of the Nile, Egypt with its low rainfall would be an arid desert. The constant supply of water brought by the Nile from the Equatorial region farther south is the cause of Egypt's agricultural wealth. Appendix Table 6 translates the Nile discharges at Aswan in terms of rain over the cultivated area of Egypt.

Much of Egypt's water supply is usually left to go to the sea, especially in the flood time. If something could be done to utilize every drop of water the Nile brings to Egypt, the country's national production would certainly be greatly increased.

6. Water Supply, Irrigation and Drainage

Probably nowhere in the world is there so large a population per square mile depending solely on agriculture and so free from the risk of drought, as in Egypt, This is because of the Nile on whose water the fertility and prosperity of Egypt and the northern part of Sudan are entirely dependant. The variation in the water supply of the big river at different seasons of the year is of vital importance to Egypt and the height of the flood has been recorded annually as the chief event of the year since at least 3600 B.C.[12/]

The waters of the Nile system have their source in two areas, first, those brought down from the Lake's plateau in east central Africa by Bahr El Jebel which meets with Bahr El Ghazal, coming from the west, at Lake No, to form the stream known as the White Nile. Some miles below, the White Nile

12/ Cf. Encyclopedia Britannica, Vol. 16 p. 484.

receives its first eastern affluent, the Sobat. Second, those brought down by the tributaries rising in Abyssinia, the greatest of which is the Blue Nile that joins the White Nile five hundred and twenty miles below the mouth of the Sobat river.

Since rain falls on the Lake's plateau nearly all the year with the heaviest average in the months from January to April and again in October and November, while it falls on the Abyssinian mountains only from June to September, the water supply of the Lake's plateau is almost constant throughout the year, while that of the Abyssinian tributaries is a seasonal one. That latter supply is the source of the Nile flood which reaches its maximum at Cairo, at the beginning of October. After that it diminishes rapidly leaving the country dependent on the supply of the White Nile and the water stored by the Aswan dam.

The history of irrigation in Egypt is as old as the history of the country itself. The flood or the basin irrigation system was the one used in Egypt up until the beginning of the nineteenth century. Under this system the Delta as well as the valley received flood waters and grew only a single winter crop each year. As a part of his agricultural program, Mohammed Aly (1805 - 1849) started converting the Delta to a perennial irrigation system. In order to grow cotton, he found that water is needed regularly from the spring until the time of harvesting. This was not the only problem to be solved, but some way had to be found by which the water could be controlled and prevented from flooding the Delta in summer while the crop was still standing.

To him the solution lay in two programs:

(1.) Heightening of the river banks to prevent the water from flooding the fields.

(2.) Deepening and widening the canals of the Delta, so that water could be taken from the river to remote areas where it could be lifted artificially to field level.

With the help of forced labor he accomplished what he aimed to do. But he found that the cost to the state as well as to the public was very high. At the same time he was attracted by an alternative approach to the problem. He found that it would be cheaper and easier to raise the level of the water in the river so that it would flow naturally in the canals rather than to continue the annual cleaning and deepening of the canals. The Delta barrage just north of Cairo, was started in 1843. The completion of this and other barrages marks the beginning of a fundamental change in the land utilization system in Egypt.

The introduction of perennial irrigation in the Valley (Upper Egypt) came with the completion in 1873 of the Ibrahimieh Canal which takes water from the Nile at Assyut. This canal irrigates an area of about 313,000 feddans. By 1899 the area under summer irrigation reached 1,700,000 feddans.

Perennial irrigation spread rapidly during the early years of this century. In 1902 the construction of the Aswan Dam on the site of the first cataract was completed. The Assyut barrage in 1902, the Zifta barrage in 1903 and the Esna barrage in 1908 were also constructed. The first heightening of the Aswan Dam in 1912 added much to its water storage capacity. In 1919 Sir M. McDonald

estimated that the area under cultivation in Egypt was about 5,200,000 feddans distributed as follows:[13]

Area in Feddans

	Total	Perennial	Basin
Lower Egypt	3,000,000	3,000,000	--
Upper Egypt	2,200,000	1,000,000	1,200,000
	5,200,000	4,000,000	1,200,000

The second heightening of the Aswan Dam in 1933, and the completion of the Gabal El Awliya Dam near Kartoum in Sudan in 1937 made possible the reclamation of a large area in the Delta and the conversion of another area in Upper Egypt from basin to perennial irrigation. The completion of the Fouad the 1st barrages at Naga Hamadi helped transfer an area of 500,000 from the basin system to the perennial system. The possibility for further increasing the area under cultivation through irrigation projects will be discussed later.

Although drainage projects are as vital as irrigation in a country like Egypt, the importance of drainage was not generally realized prior to 1914. Under the basin system of irrigation drainage did not constitute a problem. In fact, it was neither practiced nor needed, since the basin system provided the means by which the water table is naturally lowered. As soon as the flood recedes, and when the river is very low, the surplus ground water drains back into the river and the surface soil dries. Under the perennial irrigation system the old

13/ Selim, H. K. Twenty Years of Agricultural Development in Egypt, Government Press, Cairo, Egypt 1940.

natural way of drainage is no longer usable, and the subsoil water has to be drained by some method.

Drainage, besides being a way to dispose of the subsoil water, is also indispensable in the reclamation of the uncultivated lands of Egypt which usually contain salts injurious to growing plants. The drainage problem would have been easier were it not for the low elevation of the Delta which makes natural drainage impossible and which necessitates the use of pumps in the drainage of the northern parts of the Delta. The increasing use of perennial irrigation adds to the problem since unforturately the construction of drainage works has not kept pace with irrigation works.[14] It is the opinion of most scientists who have studied the causes of failure of the cotton crop in some parts of Egypt in some years, that high subsoil water is the main cause for cotton crop failures.

14/ In 1929, figures representing the irrigated and the drained land in Egypt, by major regions were as follows:

Specification	Acreage
Irrigation	
Perennial irrigation (by gravity)	2,329,255
Perennial irrigation (by lifting)	2,351,398
Total perennial irrigation	4,680,653
Basin irrigation	1,149,452
Total	5,830,105
Drainage	
By gravity	2,279,210
By pumping	952,894
Total	3,232,104

Source: El Zalaky, M.M. An analysis of the organization of Egyptian Agriculture and its influence on national economic and social institutions. Doctoral dessertation, University of California, Berkley, 1941.

The ever increasing area occupied by the drains constitutes another acute problem in the Egyptian economy which should be studied carefully. This, besides decreasing the almost fixed area of cultivable land in Egypt, is a big hindrance to the use of Mechanical equipment in the Egyptian agriculture. The use of the covered drains may provide a remedy, but they are still used only on an experimental basis and more study is needed to find a cheaper way of constructing them.

The drainage problem is a neglected one in Egypt. The country desperately needs a well formulated drainage policy. Drainage districts patterned after those used in the United States of America for the same reason or for irrigation or soil conservation, with the technical aid and supervision of the government, may provide a solution to the problem.

7. Mineral Resources

As was indicated earlier only 3 percent of the total area of Egypt is cultivable while the remaining 97 percent is mostly desert. Although almost 99 percent of the Egyptian population live in the Nile Valley and the Delta, leaving only one percent in the deserts, the deserts are not devoid of mineral wealth. It is true that the workable deposits so far known are few, but it is also true that no geological studies have been made of much of the desert region. The many new discoveries made during the last fifteen years give the hope of more discoveries to come. In his booklet, The Mineral Resources of Egypt,

Mr. El Alfy, an Egyptian consulting mining engineer, cited the gradual and steady growth of the revenue of the Department of Mines and Quarries from 1933 to 1946 as a criteria of the growth of the mining industry itself. The figures are presented in Appendix Table 7.

Mineral deposits in Egypt are numerous, some of them are exploited, while the others are not. High transportation costs constitute a considerable problem and this hinders the growth of the mining industry. This is the reason why most of the fields under exploitation are located near the Gulf of Suez where the sea provides a good, cheap means of transportation. The possibility of developing this industry in Egypt will be discussed in Chapter 4.

An inventory of the so far existing mineral deposits in Egypt will include the following: phosphates, manganese, gold, talc, iron ores, chromite, graphite, tungsten ores, tin, kaolin, sulphur, lead, zinc, molybdenum, copper, nickel, titanium, beryllium, thorium, calcium compounds such as limestone, marble, gypsum and anhydrites, silica and silicates which includes building sand, clays, fuller's earth, asbestos, bentonite and zircon, barium, strontium natron, salt and petroleum. Other stones which are provided by the different quarries have many economic uses.

B. - HISTORICAL BACKGROUND

Excluding the period of the Pharaohs which is thought to cover the period from the year 3400 B.C. till the year 525 B.C., the history of Egypt shows a long period of foreign domination stretching unbroken from the Persian Conquest in 525 B.C. to the nineteenth century. During this long period of approximately twenty-five centuries Egypt was never ruled by Egyptians. The Persians, the Macedonians, the Ptolmies, the Romans, the Arabs, the Turks, the French, and finally the Britishers, all have ruled the country for some time and changed hands from one to the other. Table 3 gives the nationality of the different powers who ruled Egypt successively from the time of the Pharoahs till the time of Mohammed Aly the founder of the modern Egypt,

The Egyptians who lived during these 25 centuries suffered from severe economic exploitation by the ruler. Those in the army and the higher ranks of the bureaucracy were almost without exception foreigners whose one objective was to squeeze the utmost out of the fellaheen (the Egyptian peasants) from whom they generally kept rigidly aloof. 16/

At the close of the eighteenth century, the Turks were ruling. Their rule, as well as that of the Mamelukes, was a dark and gloomy one. Corruption was the symptom of every phase of the Egyptian life. The Turkish army was

16/ Cf. Issawi, Chas. Egypt, an Economic and Social Analysis Oxford University Press, London, 1947.

Table 3. Rulers of Egypt, 3400 B. C. to 1950 A. D. *

Name	Period From Year	Period To Year	Approximate Length of the Period
Pharaohs	3400 B.C.	525 B.C.	3000 Years
Persians	525 B.C.	332 B.C.	200 "
Macedonians and Ptolemies	332 B.C.	30 B.C.	300 "
Romans	30 B.C.	639	650 "
Arabs	639	868	200 "
Different Islamic States	868	1250	400 "
Different Mamelukes and Turks	1250	1798	500 "
French	1798	1801	3 "
Mohamed Aly and his successors	1805	to date	--
Limited sovereignty under Ottoman Empire	1801	1882	81 "
British domination	1882	1922	40 "
Independence	1922	--	--

*Source: Lehieta, M., The Economic History of Egypt in Modern Times, in Arabic, Cairo, Egypt 1944, and other sources.

undisciplined, the treasury was bankrupt, and the general condition ran into complete confusion. France took advantage of this opportunity and Napoleon invaded the country in 1798 and defeated the Mamelukes at the battle of Embaba. Although he began his rule by preaching his innocent intentions of liberating the Egyptians from the Mamelukes, and started or planned many reforms, he did not succeed in winning the favor of the Egyptians who thought that the French were even worse than the Turks and the Mamelukes.

In the same year of the invasion, the French fleet was destroyed in Abukir, near Alexandria by the British fleet under Nelson. Following this the French army was defeated and by the close of 1801 the last French soldier had sailed from Egypt. During the years succeeding the evacuation of the French, things were as bad as they could be and remained so till Mohamed Aly became the viceroy of Egypt in 1805. He, being commandant of the Albanian militia of the Turkish army in Egypt, was chosen by the Egyptian people to become viceroy. Although the choice was confirmed by the Turkish sultan, Mohamed Aly succeeded in driving the French, the British and the Turks themselves out of the country. The Mamelukes, who disturbed him for some time, were not only completely defeated, but a goodly number of them were massacred by his followers in 1811. From that time on he ruled undisturbed and was able to found the dynasty which has since ruled Egypt.

In the days of Mohamed Aly numerous changes took place. He developed new industries, reformed agriculture, and increased the size of the army. Wages for the lower ranks of labor were greatly increased while food prices only slightly increased. Although he remained an Asiatic autocrat he introduced the constitution in 1826 and recognized a council of state and a cabinet minister. Under him a drastic centralization and reorganization of the government took place.

Mohamed Aly was succeeded by his sons and relatives. Most of them had doubtful ability and were very extravagant. The Suez Canal project, which was started at the time of Said, caused two different types of trouble to the still unestablished state. First, it brought entanglements with England, and second, it was the original cause of the Egyptian debts which reached huge figures in the time of Said's successor. Ismail was able to secure the title of Khedive and full legislative and fiscal autonomy within the framework of the Ottoman laws. Thus by 1875, Egypt may be described as a practically independent kingdom.

Although the Egyptians were used as soldiers by Mohamed Aly, they were treated as an inferior race and most of the high ranks were closed to them. Unfortunately his successors pushed that policy still farther and the result was the Arabi revolt which was the first real manifestation of Egyptian nationalism. This movement, which might possibly have benefitted the nation, was cut short by foreign intervention of the British and the

French which was the first stage of the foreign occupation. This took at first the form of a joint Anglo-French control, then France backed out, leaving Great Britain alone in Egypt. The British occupation in Egypt lasted approximately a quarter of a century. Finally the independence movement started by Mostafa Kamel and later promoted and led by Zaglul Pasha succeeded. As a result Egypt was granted independence on February 28, 1922 and the title of ruler was changed from Sultan to King of Egypt. But in spite of that, the British army was still in Cairo to protect foreign interests and the Suez Canal. In 1936 an Anglo Egyptian treaty was signed by the Egyptians and the Britishers settling some of their points of dispute but leaving other points of vital importance to Egypt without satisfactory solution. These points, of which the Sudan case is an important one, are the source of the existing dispute between the Egyptians and the Britishers.

C. - Economic Background

The Development of Egypt's Economy and The Place of Agriculture in it.

1. Introduction

To trace the development of the economy of a country with a history as old as that of Egypt is not an easy job. It takes volumes to cover the whole subject, which is not the main object of this work. For this reason consideration will be confined to the development of the country's economy since the beginning of the nineteenth century. Major emphasis will be put on explaining the role agriculture played in the economy at different times. It is convenient to divide this period into the following three parts:

First, the period from 1798 to 1882 which marks the termination of the Mamelukes' rule, the French invasion and the success of Mohamed Aly in establishing himself as ruler of Egypt, and the rule of his successors.

Second, the period from 1882 to 1922. This is the period of the British occupation.

Third, the period from 1922 up until now. This is the independence period.

2. The First Period (1798-1882)

Just before the French invasion in 1798, Egypt was a poor, corrupted, self-contained country. Every phase of the country's life was as bad as it could be.

The Turkish rulers had no interest other than squeezing the poor peasants and workers, and collecting whatever they could collect of the different taxes. The population of the country which had numbered about 7 million in the Arab's time had decreased to 2.4 million. Poverty, maltreatment and the many diseases resulted in a high mortality rate.

Agriculture, which was the major source of the country's life, was unhealthy. The tenure system was feudal, or similar to it since no peasant enjoyed property rights. Although the irrigation system used during that time was the basin one, most of the irrigation works were neglected. As a result many of the productive lands lay idle.

Industry was very rudimentary and met only the simplest wants. It was carried on by guilds with apprenticeship rules similar to those that prevailed in medieval Europe. Most of the industries which flourished and assumed a considerable role in the economy before the Turkish rule were dwindling. There were three reasons behind this:

(1.) Some Turkish rulers picked the experts in the different Egyptian industries and sent them to Turkey, to help in establishing different industries there.

(2.) The taxes to which the different industries were subjected were so heavy that most of them were unable to survive. These taxes were not assessed on any scientific or just basis rather they depended on the power of the different guilds. Usually the powerful ones paid the least.

(3.) The intervention of the Turkish rulers in the affairs of the guilds, weakened them and weakened industry in general.[17]

Egypt, being at the crossroads of three continents, gained much from the foreign trade during the first part of the Mamelukes' rule. The most important trade in the world at that time was between Asia and Europe and Egypt straddled the route through which much of this trade had to pass. The rulers often imposed high taxes on the passing trade, taxes that in some of the cases approached one-third of the value of the commodity traded.[18] Egypt, also, used to export some of its agricultural products such as wheat, rice and onions.

In 1498 the sea-route around the Cape of the Good Hope was discovered by the Portuguese sailor, Vasco Da Gama. This was a great shock to the Egyptian economy, since it became cheaper for the foreign importers and exporters to transport their commodities along the new route. Before this time the tax on the passing commodities had been a main source of revenue in Egypt.

Despite the shortness of the period of the French occupation, which lasted from 1798 to 1801, most of the phases of Egyptian life were affected by the French ways. The social and the political phases were those affected most. No considerable change took place in the economic phases of the

17/ The weaving industry was one of the flourishing industries in Egypt during the Arab's time.

18/ Lehieta, M. F. The Economic History of Egypt in the Recent Times. op. cit.

country. The French tried a slight change in the tenure system and imposed many different taxes. No real effort was made to introduce new industries, or encourage the old ones. In the field of agriculture nothing was done, except the inclusive studies which were made by the French scientists who accompanied Napoleon. These inclusive studies were the foundation of the agricultural policy followed by Mohamed Aly a little later. The idea of joining the Mediterranean and the Red Sea was studied by the French scientists. These studies were of good use when the Suez Canal project was undertaken.

Under Mohamed Aly a great economic revolution took place. Agriculture, industry and trade were reorganized in such a way as to fit the dream of the progressive ruler. This dream was the establishment of a wide and powerful Egyptian Empire to take the place of the sick and passing Ottoman Empire. His rule was built on two economic bases:

(1.) All the economic activities were monopolized by the government which in turn was crystalized in his hands.

(2.) Every effort was made to make Egypt a completely self-sufficient country.

In spite of the many new industries which were introduced or encouraged, agriculture was the major source of livelihood in the country. The proportion of the population engaged in agriculture was larger than that engaged in industry and trade together and the contribution of agriculture to the

government revenue was the largest. Many changes took place in the following fields: the production system, the tenure system, the irrigation system and the crop system.

Production was under the complete monopoly of the government. The farmers were given from three to five acres of land, livestock and seed and were asked to produce the crops wanted by the government. The whole product had to be submitted to the government.

After doing so, the value of the product had to be computed by the government's agents. The prices were fixed by the government and after deducting what the peasant owed the government for taxes, seed, fertilizers and livestock, he usually was given credit for the balance. The peasant never received cash, but the balance was kept with the government to meet the future needs of the peasant.

The change which took place in the tenure system will be discussed thoroughly in Chapter III. It is sufficient to mention here that the Iltizam system[19] was abolished and the government took over all the land.

To accomplish this Mohamed Aly pacified the Monltzims by leaving to some of them their own estates which were known as the Wissiya land. He also gave to some of the rich Egyptians and his assistants what was known as the "Abadieh lands" and to his relatives what was known as "Shafalik".[20]

19/ Cf. Chapter 3 The Evolution of the Land Tenure System in Egypt.

20/ Lehieta, M.F. op. cit., p. 165.

In the field of irrigation Mohamed Aly employed some of the French employees who helped him in designing and constructing his irrigation projects, especially, that of the Delta barrages. Many canals were dug, many others were deepened and river and canal banks were strengthened. For the first time perennial irrigation was used on a large scale. This helped in producing cotton and sugar cane. The different irrigation programs made the exploitation of a wide area possible. Between 1820 and 1840 the cultivated area increased from 2,031,905 feddans to 3,856,622 feddans.

As far as the farm crops were concerned, the change consisted of the introduction of some new crops and the expansion of the acreage used for others.[21] Of those crops, cotton was the most important. The production of cotton was increased from 944 Kantars in 1821 to 344,955 Kantars in 1845.

Indigo was also a crop which attracted the attention of Mohamed Aly. He imported new seeds from India and its production was increased to the extent that it not only met internal needs but some was exported.

Wood for lumber and opium for drugs were also products which were encouraged by the ruler.

In the field of industry two main changes took place. These were:

21/ The main crops which were produced in Egypt at this time were:
1. Summer crops; sugar cane, cotton, rice, indigo and sesam.
2. Winter crops; clover, wheat, barley, beans, lentils, flax, onions and garlic.
3. Vegetables; green beans, eggplant, lettuce, cabbage watermelons and others.

(1.) The government, as in agriculture, monopolized all the industries.

(2.) The introduction of the heavy industries and the big firm system.

Mohamed Aly was trying to make a self-sufficient country out of the agricultural Egypt. Besides monopolizing all the economic activities in the country, he imposed protecting tariffs. His energies carried the Egyptian industry from simple feudal craftsmanship to full blown capitalism at one leap. Arms, machine tools, steam engines, as well as cloth, paper, glass and sugar were produced in his foundries and factories.

Trade, internal and foreign, was also in the hands of the government. In this period Egypt had an active balance of trade.[22] This was because of the increasing productive area, and because of the production of cotton. Means of transportation were improved, the currency system was overhauled and the exchange prices were fixed.

This was, briefly, the economic program of Mohamed Aly. One last word remains to be said regarding taxation. Taxes were numerous and heavy. Sometimes the whip was used to help in collecting them and most of the revenue was spent on the army and navy. In 1833 about 30 percent of the government's expenditures were on the army and about 15 percent

22/ Lehieta mentioned in his book that in 1849 the value of exports was 1,660,740 L.E. and the value of the imports was 1,474,060 L.E.

on the navy. As far as the welfare of the Egyptians was concerned, the system was a failure. In spite of the better economic situation enjoyed by the government, the individuals did not reap any of the fruits. The philosophy of the time was that the strength of the nation is an end in itself, no matter how miserable and poor the individuals are. The rulers did not think that the prosperity and strength of a nation should be derived from that of its people.

It was mentioned that the percentage raise in the wages was higher than that in the prices of foodstuffs, but still there were many exploitations. For instance, the price allowed to the peasants and farmers for their submitted wheat was 30 P.T. while the price charged the people when buying their needed wheat was 50 P.T. per ardeb.[23/]

The government reaped the fruits of the increased agricultural production. The monopoly of trade and industry destroyed the small traders and some of the small industrial firms. When Egypt was obliged to follow the Anglo-Turkish commercial convention of 1838, which permitted the British traders to buy and sell anywhere within the Ottoman dominion, Egyptian industry and trade began to collapse. Trade was largely taken over by foreigners. The compulsory reduction of the army in 1841 was the second blow which discouraged Egyptian industry.

23/ Tibieta, M.F., op. cit. p. 105.

After the death of Mohamed Aly, his regime began to fade gradually. The governmental monopoly began to give place to the free enterprise system. Most of the entrepreneurs, who entered the fields of trade and industry were foreigners and in Said's time many corporations were organized.

Agriculture, in the time of Mohamed Aly's successors, assumed the major role in Egypt's ecomony. The area of land under cultivation was increasing with the progress of the irrigation projects. The abolition of the governmental monopoly, and the development of the land tenure system which resulted in a state very similar to that of private ownership, helped in creating the self interest and the initiative needed for progress of agriculture.

The area under cultivation was increased from 3,856,000 feddans in 1840 to 4,810,000 feddans in 1879. However, individuals benefited little from this increase, since the ruler put his hands on all the newly cultivated land. In 1862, he owned 15,000 feddans, but a few years later this figure jumped to 950,000 feddans. At the same time the population was increasing and it reached 6,800,000 in 1882.

The area under cotton was increasing rapidly. This was caused by the high prices of cotton, as a result of the American Civil War in conjunction with the progress of the irrigation projects. The following table gives the production of cotton and its average prices in dollars in selected years.

Table 4. - Production and Prices of Cotton in Egypt in some selected years*

Year	Production in Kantars	Price in Dollars
1848	120,000	10.00
1849	258,000	11.75
1863	1,182,000	45.00
1864	1,719,000	31.75
1865	2,140,000	35.25
1878	2,594,000	14.06
1879	2,686,000	14.34

* Source: Crouchley, The Economic Development of Modern Egypt, Longmans, Green & Co. London, 1938.

Sugar cane and tobacco were strong competitors to cotton, especially when prices dropped after the termination of the American Civil War.

All those who followed Mohamed Aly did not think much of industrializing the country. Industry was neglected by all the rulers with the exception of Ismail who was in favor of its encouragement. The sugar manufacturing industry and the weaving industry flourished in his time. He built new factories and re-opened some of those built under Mohamed Aly that had been closed after his death. But the idea of creating a self-sufficient country out of Egypt was discarded. The factors which were responsible for that are:

(1.) The low stage of arts and skills which existed at that time made it impossible to create any big industry.

(2.) Egypt was not free to impose protective duties. The success of any infant industry is impossible without such protection.

(3.) The foreign influence in directing the whole economy of the country was increasing. Evidently foreigners wanted to keep Egypt an agricultural country.

Even the sugar factories established by Ismail did not succeed. The high prices of cotton induced the people to grow cotton instead of sugar cane. These in conjunction with the lack of skills and managerial abilities were enough to discourage the industry. Some writers are inclined to believe that Ismail established those factories as a means of increasing his own income rather than creating a healthy industry.[24]

Considerable foreign capital entered Egypt during Said and Ismail's times. Foreign financiers were mostly interested in banking and in public utilities.

The construction of the Suez Canal which was started in 1856, is one of the outstanding events which took place in that period of Egypt's history. Aside from the advantages which were enumerated by those who advocated the project and the disadvantages cited by those who opposed it, the fact that starting the project at that time hurt the growing state, is beyond any dispute. The financial troubles caused by the heavy debts which were made to finance the canal and some other public works needed to meet the extravagance, which was the symptom of that period, resulted in the foreign interference

24/ Mr. El-Rafi, mentioned in his book, Ismail's time in Arabic that the number of sugar factories was seventeen.

in the Egyptians' private affairs which was a prelude to the British occupation. These debts, which were about 11,160,000 L.E. at the end of Said's rule, reached 98,000,000 L.E. at the end of Ismail's rule. They carried a high interest rate and were the cause of the great economic troubles that the country experienced. To show the depressing effects of these debts on the country's economy, Lehieta mentioned that in 1875 the total revenue was 10,042,468 L.E. of which only the interest on the debt took six million Egyptian pounds. The foreign interference, based on the financial troubles, was increasing all the time and even the sale of Egypt's share in the Suez Canal's profit and the 1880 law of debt liquidation did not help to solve the situation. On the other hand, foreigners found another excuse for their interference in the political troubles which took place at that time, particularly the Arabi revolution which was terminated by the British occupation.

3. The Period from 1882-1922

The political troubles which took place at that time and which led to the British occupation in 1882, followed by the losses incurred in the Sudan in an effort to prevent its falling into the hands of the Mahdi, added much to the economic distress of the country and worked against the 1880 settlement. According to the terms which were agreed upon by the representatives of the great powers and Turkey in the London Convention held in 1885, the Egyptian revenue was divided between the

"Treasury of the Public Debt" which was established to act as receiver of the revenues assigned to the service of the debt, and the government. The following revenues were assigned to the service of the debt: all the revenues derived from the railway, telegraph, port of Alexandria, customs (including tobacco) and from four of the provinces. The non-assigned revenue was by no means enough to meet the government's expenses. The convention empowered Egypt to raise a loan of nine million Egyptian pounds, guaranteed by the powers, at a rate of interest of 3 percent. This loan which was known as the Guaranteed Loan was sufficient to wipe out the deficits of the preceding years and to set the Egyptian treasury on its feet. The London Convention established some serious restrictions on the Egyptian government which left her without any financial autonomy.

During the years that immediately followed the signing of the London Convention, the financial policy of the Egyptian government called for exercise of the most rigid economy in all branches. From this moment an era of financial prosperity was commenced. This was a result of the attention given to the legitimate demands of the spending department and to the prosecution of public works, the outstanding of which were the irrigation projects. In 1904 the Egyptian government was given a free hand in the management of its own resources so long as the interest on the debt was paid. This was a result of an understanding between England and France. This understanding left the Treasury of the Debt existing but short of any political

power, its function being limited to receiving the assigned revenues. The basis on which the revenue was distributed between the government and the debt service also was changed.

The first years of the British occupation constituted a powerful fight against bankruptcy. The increased cotton production coupled with some rise in its prices, especially after 1899, pulled the country out of the trough and from 1899 on all the budgets showed surpluses.

The economic activities during the British occupation were centered around agriculture. Numerous irrigation projects were undertaken. As a result, middle and lower Egypt were converted to perennial irrigation. The area under cultivation increased from 4,764,000 feddans in 1881 to 5,658,000 feddans in 1911 and the crop area increased to 7,712,000 feddans.[25] The bulk of the increase in the area under cultivation was taken by cotton. The area under cotton increased from about 500,000 feddans in 1879 to 1,723,000 feddans in 1913. This constituted 22 percent of the crop area. The country's production of cotton rose from 3,100,000 Kantars in 1879 to 7,700,000 in 1913. This increase in the production was going on in spite of the decline in cotton prices which continued until the close of the nineteenth century. Another crop which witnessed an increase in its production was maize, which constituted the main diet of the people. Wheat and beans did not increase as

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25/ Cf. Crouchley, op. cit.

cotton and maize. In fact the acreage under beans actually declined.

Population was growing fast, increasing from 6,800,000 in 1882, to 12,750,000 in 1917. The number of land owners also increased at a rapid rate. In 1895 there were 767,000 land owners while in 1913 the number was 1,557,000. The bulk of this increase is accounted for by small owners (less than 5 feddans) who numbered 1,411,000 in 1913. This rapid increase in the number of land owners was due to the removal of the last restrictions on ownership and the formation of many land companies who reclaimed the land and sold it to the farmers.

Besides the progress which took place in the field of agriculture, especially irrigation, there was similar progress in transportation. The network of the state railways was more than doubled during the occupation period. Also light railways were constructed in the Delta and in Fayum province by private enterprise. The total length of the railway lines in the country reached 4,800 kilometers in 1909.

Industry did not show any noteworthy progress during the occupation period. It is the belief of some of the students of the subject, that the British administrators deliberately neglected industry and directed all their efforts toward the increase of cotton production. There is no doubt that many industries, such as cotton and tobacco, would have grown if given some kind of care and encouragement. But the British administrators cared for the British interests first, and

England was interested in Egyptian cotton.

In spite of all the reasons Lord Cromer enumerated to justify his unsympathetic attitude towards industry, the following facts certainly show his hostility to industrialization:

(1.) Local cotton goods, which should have been protected and encouraged, were, instead, subjected to an 8 percent excise duty. This was enough to clear the Egyptian market for the Lancashire production.

(2.) Coal which was the main fuel used for industrial purposes and which was imported was subjected, as other imported goods, to an 8 percent duty.

(3.) The Cultivation of tobacco which was promising and would have been highly improved and progressed if given part of the care that was given to cotton production, was first taxed heavily, then forbidden altogether. By so doing, the local supply of the raw material needed for the cigarette industry, one of the largest and most promising industries in Egypt, was completely cut. The industry became dependent on the importation of tobacco.

(4.) The increase in the area under cotton was going on in spite of the continuous decrease in cotton prices which was taking place and which was not reversed until the beginning of the present century. These prices were as follows:

In 1870	the	price	was	£22.00
In 1880	"	"	"	14.00
In 1890	"	"	"	12.00
In 1897	"	"	"	7.00

Foreign trade increased rapidly and Egypt enjoyed a favorable balance of trade. The exports which amounted to L. E. 12,983,000 in 1880 rose to L.E. 31,662,000 in 1914. The bulk of this increase was accounted for by cotton exports which reached L.E. 29,498,000 in 1914, or about 93 percent of the value of the whole exports. Other exported products were, onions, rice, raw wool, eggs and sugar.

Imports also increased from L.E. 7,900,000 in 1885-1889 to L.E. 25,200,000 in 1910-1914. They consisted mostly of manufactured articles, foodstuffs, raw materials and fuel. England was Egypt's biggest supplier.

The occupation period saw some changes in the currency system. Owing to the fall in the price of silver after 1860, it was impossible for Egypt to maintain the bimetallic system, and the unit of currency was made the Egyptian gold pound in 1885. In 1898 the National Bank of Egypt was founded and given the privilege of issuing banknotes with a 50 percent gold cover. The use of these though spread very slowly. In 1914, because of a shortage of gold, the notes were declared legal tender, and because of the increased difficulties experienced in obtaining gold for the cover, the bank was permitted to use British Treasury bonds and bills as backing. The first World War accelerated the note issue which reached L.E. 64,000,000 in 1919.

There were two other main results of the war:

(1.) It helped the development of deposit banking in the

the country.

(2.) In spite of the benefits secured by some people, the masses experienced hard times. Shipping difficulties prevented Egypt from getting its normal share of imports which contained among other things, wheat and fuel. Reduction of wheat production was believed by some to be the outcome of the policy followed by the British administrators. Others are inclined to put the blame on the landed interests who increased their cotton production as a result of the high prices it sold for. Prices of cotton after falling at the beginning rose to ₱38.00 in 1916 and reached ₱90.00 in 1919. The scarcity of wheat was so acute that the government, as a relief measure, sold imported wheat at a loss. The index of wholesale prices rose from 100 in 1914 to 310 in 1920, while that of wages rose from 100 in 1914 to 260 in 1920. This indicates the hardship that the masses experienced during the War until 1922. In 1922 there was a general break in prices.

4. The Period After 1922

Although Egypt was granted its independence in 1922, England continued to interfer in many of the Egyptian affairs. The political activities were so absorbing that only little thought was given to the other phases, particularly, the ecomonic one. In spite of the lack of any organized policy, the trend was in the direction of industrialization. The shortage of imports during the War gave rise to many small industries some of which died after the War. Three factors, however, gave

impetus to industrialization. Those were:

(1.) The foundation of the "Bank Misr" in 1920. Among the objectives for which the bank was founded was encouragement of Egyptian industries.

(2.) The second factor was the creation of the Egyptian Federation of Industries in 1922.

(3.) The third and very important factor was higher duties which were imposed on imports in 1930.

These factors were the essential ones which worked toward more industrialization of the country and which enabled industry to achieve the place it has now in the country's ecomony.

In spite of the growth of industry, agriculture still plays the major role in the country's ecomony. The remaining part of this section will be devoted to the explanation of the role played by agriculture, as well as by other ecomonic activities in the ecomony of Egypt at the present time. Different measures could be resorted to in order that we achieve our aim. These are:

(A.) <u>The Proportion of Population Engaged in the Different Activities</u>.

It is very difficult to indicate accurately the percentage of the total population dependent on the different industries of Egypt. Figures are available for only the occupied persons. However, the Fellah Department of the Egyptian Ministry of Social Affairs estimated that the agricultuaal population in

1937 was 75 percent of the total.[26] According to the 1937 census, the employed persons including pupils numbered 7,422,000. Agriculture employed 58 percent of this number, industry, mining and building employed 8.2 percent, transportation employed 1.9 percent, trade employed 6.2 percent and unproductive pupils were 18 percent. No other reliable figures, on the more recent time, are available. It is certainly clear that according to those figures, agriculture is still the major industry in Egypt, and is still the source of livelihood for the majority of the people.

(B.) The Share of Each Industry in the National Capital.

Figures on the national capital of Egypt are rare, and the accuracy of those available could be questioned. However, our analysis will be based on two of the more recent and reliable estimates.

In "Egypte Contemporaine" of March 1943, Mr. Adler estimated the national capital as follows:

	L.E.	
Land	660	Million
Houses (excluding those used for industrial and commercial purposes)	170	"
Industry and commerce	130	"
State property (including railways, canals, state domain, reserve fund, etc.)	140	"
Floating capital, foreign securities held by residents etc.	50	"
Private establishments	40	"
Mines and quarries	10	"
Total	1,200	"
Less Egyptian securities held abroad and foreign owned property in Egypt	100	"
National capital	1,100	"

26/ Cf. section on Rurality in Chapter 2.

Dr. EL Shafie, A.N. of the Faculty of Commerce of Fouad the 1st University in Cairo Egypt, in his essay on "The Share of Industry in the National Economy" appeared in "E.L. Fellaha",[27] fifth issue, September-October 1949 mentioned that in 1945, the total capital invested in industry was 90 million Egyptian pounds, while the value of the agricultural land, the livestock and the agricultural equipment was about 1,200 million Egyptian pounds in the same year.

This second measure assures that industry is subordinate to agriculture in Egypt.

(C.) The Contribution of Each Industry to the National Product.

Dr. EL Shafie in the same article estimated that in 1945 the value of the national industrial product was about 200 million Egyptian pounds while the value of the national agricultural product was 320 million Egyptian pounds in the same year. It is worthy to mention in this respect that in 1945, while the value of the agricultural exports was about 37 million Egyptian pounds, that of the industrial exports was negligible.

(D.) The Contribution of Each Industry to the National Income.

In 1945, the total national income in Egypt was about 600 million Egyptian pounds. This was divided as follows:

1. The national income from agriculture was	L.E. 200	million
2. The national income from industry was	60	"
3. The national income from transport, trade and others	340	"
Total	600	"

27/ Edited in Arabic by the Association of the Graduates of the Agricultural Schools and Institutions.

This measure, as well as the other three aforementioned, all indicate that agriculture is still playing the major role in Egypt's economy. As an occupation it employs more than one-half of the total occupied population and supports almost 75 percent of the Egyptian people. In terms of investment, agricultural land constitutes the biggest share of the investment, besides being the most preferable one. It also contributes much to the national product as well as the national income.

This, however, does not mean that industrialization is a stagnant process in Egypt nor that the place of agriculture in Egypt's economy during the recent "Independence Period" has not differed much from its status during the British occupation period. In fact, the progress of industry was going on since the termination of the first World War. This progress was slow at the beginning, but the tariff laws of 1930 accelerated it, and the second World War gave it further impetus.

To indicate the extent of industrial progress in Egypt during the more recent times the following tabulation is quite helpful:

Number of the Industrial Firms and the People Engaged in Industrial Activities in Different Years[28]

	1927	1937	1944	1948
No. of Industrial Firms	70,000	92,021	130,000	--
No of Workers	215,000	273,464	460,000	630,000

28/ Source, Annaire Statistique, op.cit. p and other sources.

The number of those engaged in industry in 1949 is thought to be more than six hundred thousand. This means that industry in Egypt supports now not less than 1.7 millions or about 9 percent of the 1947 population.

Another way to show the extent of industrial progress is to indicate to what extent the different domestic industries were able to meet the country's needs which were usually satisfied by the importation of foreign industrial products. This is shown in Table 5.

Table 5. - The Extent to which Different Industries Satisfied the Country's Need in 1939*

Industry	% of local needs met	Industry	% of local needs met
Sugar	100	Cement	90
Alcohol	100	Soap	90
Cigarettes	100	Tarbouches (headdress)	90
Salt	100	Furniture	80
Grain Grinding	99	Beer	80
Lamp Glass	99	Matches	80
Electric Bulbs	99	Vegetables Oils	65
Worsted Cotton	96	Corrosive Soda	55
Leather Boots & Shoes	90	Cotton Piece Goods	41

*Source, Information Sheet No. 2 Egyptian Ministry of Educatin, Washington Bureau, 1949.

It is also helpful to mention the fact that two-thirds of the industrial establishments existing in the Governorates, which are mostly industrial centers, and in which most of the industrial firms are found, in 1937 were less than ten years old. 29/

29/ Issawi Chas. op.cit. 84.

Some indication of the advance of industry is to be made by studying the import and export statistics during the different periods. While these statistics show an increase in the importation of machinery and raw materials since the occupation period, they show a desrease in the importation of certain manufactured goods such as furniture, shoes, tanned leather, matches, glassware, soap, cotton, yarn and many other things. The following table is helpful in comparing the items os import in 1938 with those of 1913.

Table 6. - Items of Imports in 1938 Expressed as Percentage of 1913 Imports.*

Machinery & Raw Materials	%	Finished Goods	%
Mineral oils and Lubricants	1,403	Iron Bedsteads	2
Silk Yarn	1,012	Leather Shoes	6
Precision instruments	629	Furniture	11
Mazot	590	Tanned leather	22
Vegetable oils for industry	516	Cement	24
Iron bars	331	Cotton yarn	29
Machines	313	Matches	40
Cast Iron	281	Glassware	45
Woolen yarn	180	Soap	51

*Source: Issawi, Chas. op.cit. p. 83.

As far as exports are concerned, Egypt imported an average of about 43 million pounds of clean rice and 25,000 short tons of sugar a year in the 1910-1914 period while it exported an average of about 230 million pounds of clean rice and 11,000 short tons of sugar a year in the 1935-1939 period.

While industry has been developing since the beginning of the independence period, there has been a tendency to reduce the acreage of certain crops in favor of others. Acreage under corn, barley and dried beans has been reduced in favor of rice, wheat, vegetables, sugar cane and fruits. This shift increased Egypt's self-sufficiency in food production. Before 1914 Egypt was a large importer of foodstuffs. On the average its food imports represented over 25 percent of the value of all products entering the country. In 1938 these represented less than 6 percent of the value of all imports.

D. - The Supply of Land and the Factors Affecting It

1. Introduction

The earlier parts of this chapter are designed to give a fairly general background about Egypt. It is hoped that this background will facilitate the discussion of the supply of land in Egypt and give some understanding of the different physical, economic and political factors that have an effect on it. In the following pages the discussion will be devoted to the supply of land, the factors which limit it and the possible ways by which it could be increased.

The supply of land is a confusing term with no precise meaning. For scientific purposes more refinement is needed in order to give the term more accuracy. One aspect of the supply of land is the physical supply, which refers to the whole earth, its land surface and subsurface, water areas, and atmosphere. As we will see later, this is not important, since the entire physical supply of land may not be usable, or of economic value. The other aspect which has more economic and social importance in the economic supply of land. The economic supply of land was defined by Renne[30] as the schedule of land units which will enter particular uses in response to price at a given time and given places.

2. Factors Affecting the Supply of Land in Egypt

The physical factors still rule supreme in determining

30/ Renne, R.R. Land Economic, Principles, Problems and Policies in Utilizing Land Resources. Harper & Brothers, New York, 1947.

the supply of land in Egypt. This is because the country is still in a low stage of art and technology. The majority of the people are illiterate; the number of scientists and technicians is few.

Education is making comparatively slow progress in Egypt. Besides, it has many weaknesses which should be corrected if it is to be effective.

The main factors which determine the supply of land in Egypt and the prospects of increasing this supply by overcoming the limitations set by those factors will be discussed in the following pages.

(A.) Rainfall

Nothing is equal in importance, in the utilization of land for agriculture and forestry, to moisture. Water is needed for the growth of plants and without water there would be no vegetation. It is said that it takes two tons of water to grow the wheat necessary to produce a loaf of bread.[31]

It was indicated in the first part of this chapter that Egypt lies in the Sahara area and the average annual rainfall is too small to support any considerable vegetation. This makes the country completely dependent on the waters of the Nile. This natural factor seems unsurmountable, since so far, nothing could be done which might increase the rainfall. The project of filling the Kattara depression, in the Lybian desert,

31/ Ely and Wehrwein, Land Economics, The Macmillan Company, New York, 1940.

with water from the Mediterranean was thought to meet the lack of rainfall in Egypt, but the results are not sure and the project seems to have been shelved.

(B.) Irrigation

Irrigation is the second and the most important limiting factor in Egypt, as far as the supply of land is concerned. Some of the desert land which surrounds the Valley of the Nile and the Delta, could be converted to productive fertile land if the amount of water needed for that is made available. Aside from that, the total cultivable area of Egypt which has been estimated at 7,100,000 feddans is not reached yet. In 1947 the area under production was 5,943,000 feddans. To put the remaining waste land, in Upper and Lower Egypt, under production necessitates increasing the present storage capacity of the dams. The problem facing Egypt is not that of a shortage of water in general, rather it is a problem of controlling the water and distributing it according to the agricultural needs, all during the year. In spite of all the irrigation projects which were undertaken, Nile control should not be considered complete. The waste water which is permitted to run into the Mediterranean each year during the flood time is estimated to be two-thirds of the total discharge of the river. During the flood time all the gates of the dams and the barrages are left wide open to let the water run into the sea. In some of the years when the flood is high, water is directed to flood

some of the basins before harvesting the crops, as a safety measure. This very primitive measure involves much waste. Waste of water, waste of human energy and waste of potential crops. On the other hand, many districts of the country experience difficulty in getting the water needed for summer crops during the months from March to July, and many districts are prohibited by the government from producing rice because of the shortage of water during the aforementioned period.

Irrigation projects are vital in Egypt and should be given more attention and care. Many studies about harnessing the Nile and regulating its water supply were made and many programs were considered, but unfortunately most of the programs are not completed. A more inclusive regional study covering the whole Nile Valley should be undertaken by Egypt and the other neighboring countries, with the object of putting every single drop of water into use to benefit the whole area. This might be the key to the solution of irrigation problems in those countries.

Increasing the supply of cultivable land in Egypt could be made possible through one or all of the following methods:

(1.) Reclamation of lands which have not as yet been reclained in Lower Egypt. This needs irrigation works, as well as drainage work. Drainage will be discussed later. Professor Crouchley's suggestion of making benefit of the mud which is lost every year with the flood water, and which was estimated to be equal to a layer of soil one metre thick over an area of

8,000 feddans, in filling the lakes and marsh lands in Lower Egypt, sounds logical and possible. By so doing a large area could be brought under production without any considerable cost. It is interesting to mention that mud worth L.E. 1,000,000 per annum is wasted with the flood water. The land in Lower Egypt to be brought under cultivation, if reclaimed, was estimated in 1937, to be around two million feddans.

(2.) The second possible way by which the supply of cultivable land could be increased is the conversion of the area still under the basin irrigation system in Upper Egypt into the perennial irrigation system. This conversion work if completed, should increase the area under summer cultivation in Upper Egypt by at least one million feddans.

In a study made by the Ministry of Public Works in 1920, it was estimated that the crop area in Egypt could be increased to 11,430,000 feddans through conservation of the Nile water.

(3.) The third way to increase the supply of cultivable land is to look for additional lands. The deserts surrounding the Nile constitute a potential source of economic land. It is usually maintained by some government officials that it is impossible to make use of these deserts. But there is nothing impossible in this age, and if the Dutch people were able to make use of the sea and create land, the Egyptians should try to make use of the desert. All that the desert needs is water. With adequate water and suitable rotations a large part of this

desert probably can be brought into production. I might mention here that one of the most productive and most beautiful estates in Egypt was nothing but bare desert until a recent date. This is the Inshas estate which is a private property of his Majesty King Faronk, the king of Egypt and which was voted by many foreign visitors to be one of the most advanced and productive farms in the entire world.

(C.) Drainage

Drainage affects the supply of cultivable land in Egypt in two different ways. These are:

(1.) The intensive use of perennial irrigation in the absence of drainage results in the accumulation in the soil of some salts, which are harmful for plants. It also raises the level of the underground water table. Both of these effects diminish the soil fertility and decrease the crop yields. With an increasing population this would result in more population pressure on foodstuffs which means more demand for land. Drainage is the easiest way to neutralize the bad effects of intensive perennial irrigation. Both harmful salts, and the underground water could to gotten rid of by means of drainage. This means an increase in crop yields which is equivalent to an increase in the supply of cultivable land.

Under the basin system of irrigation drainage did not constitute a problem. But it now presents a problem as acute, if not more acute than irrigation. Unforturately drainage works are not proceeding with the same speed as irrigation works and

to give it the same speed and same efficiency huge amounts of money are needed. This is beyond the ability of the government which thus far provides the main deep drains. These main drains need to be connected with an infinity of secondary and tertiary drains; many obstacles stand in the way of connecting these drains.

These are:

(a.) There is no law to compel landowners to provide drains on their own land.

(b.) There is no regional organization which could undertake the work.

(c.) The tenure system which results in a huge number of owners each owning a small strip of land is another obstacle. Opening a drain may take the entire holding of some farmer.

(d.) The fragmentation of holdings which is not uncommon in Egypt complicates the matter further.

Remedies for the tenure system will at the same time mitigate the drainage problem. The organization of drainage districts, similar to the soil conservation districts in the United States, with legal power to open drains in its area, if the owners of more than one-half the acreage of the area vote for it, is the only possible solution under the present circumstances.

(2.) The present open drain system is extremely wasteful in the sense that as much as 10 percent of the cultivated land area may be used for the drainage ditches. A possible solution to this is the use of covered drains. Covered drains are in

an infancy stage in Egypt and as yet do not appeal to the farmer's mind.

The drainage problem should be given more attention by the Egyptian scientists and authorities. They must find some practical way by which the underground water table can be kept low and by which harmful salts can be washed out of the soil, with the minimum waste of soil surface in constructing drains.

(D.) Technology

Technological achievements could affect the supply of cultivable land in Egypt in different ways also. These are:

(1.) Technological advance in agriculture means higher yields from the same piece of land at the same cost, or the same yields at less cost. The effect of that will be a drop in the prices of the produced crops which is similar to the effect of putting more land under cultivation. In other words, technological advance is equivalent or has the same result as an increase in the supply of the factors of production which is, in our case, "land" other things being equal.

(2.) Technological advance might involve the future production at reasonable cost synthetic food and fibres without the use of land as the major factor of production. This means the substitution of capital or labor for land. If this could be achieved the existing supply of land would be ample for the existing population which is also equivalent to an increase in the supply of land.

(3.) Technological progress in pumping and using artesian water in irrigation means much to Egypt. Many sub-marginal lands could be rendered productive, if water could be provided at a reasonable cost. On the other hand, vegetable and other crops which need water regularly could be produced intensively in many places, if artesian water could be made available during the period when the river water is usually short. This would result in an increase in the supply of land.

Even with the improvements that have been made, the country is still backward. Most of the implements used in agriculture are of the old and primitive type. The illiteracy of the farmers, the lack of well trained college graduates, the shortcomings of the educational system, the slowness of industrial progress, and the type of land tenure system existing in the country are among the obstacles which hinder technological advance in agriculture. The average Egyptian farmer is not only unable to comprehend new techniques, but also has an unsympathetic attitude toward new agricultural techniques and is too stubborn to listen or to follow any advice. What is surprising is that he always receives an undue share of praise and admiration from the Egyptian press and the superficial writers, as a highly skilled and hard working man. Actually, there is no scientific ground for this assumption and the greatest favor these people can offer him is to induce him to listen and follow the instructions and advice of the

of the technicians whenever they go to supervise him. The high yields obtained by progressive big land owners and the government experiement stations show that there is much room for improvement. But still the tenure system constitutes a serious obstacle to improvement. This matter will be discussed in detail later.

(E.) Urban Land Use

Another factor which affects the supply of cultivable land in Egypt is the encroachment of urban land use upon agricultural land use. In a country such as Egypt where the size of the area which could be brought under cultivation is nearly limited, every effort should be made to spare every possible piece of potential farm land for agricultural production. This does not mean that the urban uses should not be satisfied, rather those uses could be satisfied with the minimum sacrifice of productive land. Cairo, Alexandria and most of the other large cities are expanding rapidly. This is a requisite for the fast increasing population which requires housing facilities. Nobody seems to be thinking much about the problem of how suitable accommodations can be provided with the minimum use of land. The newly undertaken project of the so-called "Wakf's" City adjacent to Cairo which took a considerable area of the most productive places in the country, for the establishment of a new city, proves that the matter of the encroachment of the urban land use upon the agricultural land use presents no

problem in the minds of the Egyptian authorities.

Instead of establishing the city on the desert land lying idle on the other side of the city, as was done by the other building corporations, the Ministry of Wakfs, unaware of the implications of the matter, chose to convert that highly productive area west of the Nile at Cairo into a city.

On the other hand, the many schemes, designed for the modernization of the Egyptian villages, if put into action, will present a big encroachment problem. Again this does not mean that the Egyptian villages should be left as at present, but this problem should be considered by those who are in charge of such schemes.

(F.) Political Factors

Finally one of the factors that has bearing on the supply of cultivable land in Egypt is the political one which has its effect through the following ways:

(1.) The waters of the Nile which are the means of life in Egypt are vital for the progress of Sudan and the other neighboring countries. The Sudan which should be, for economic, geographical and cultural considerations a part of Egypt, constitutes the major point of dispute between the Egyptians and the British at the present time. Harnessing of the Nile, according to a broad regional study, as aforementioned, is the key point for the progress of that part of Africa. With political troubles, there is no hope for progress because

such a huge project needs cooperation and cooperation is impossible when there is no peace and when every country distrusts the other.

(2.) On the other hand, the Sudan is the potential area to which the increasing Egyptian population might migrate. Migration is a relieving factor, if accompanied by some other population policies. If this area is taken from the Egyptians to be given to the Britishers, or to be independent country, migration would become impossible.

These are the main factors which have a bearing on the economic supply of land in Egypt. The second chapter of this work will be devoted to the analysis of the demographic situation of Egypt as it affects the demand for land.

CHAPTER II

THE DEMOGRAPHIC POSITION OF EGYPT AND THE DEMAND FOR LAND

A. - Introduction

In the first chapter of this work, the different factors which determine the present physical as well as economic supply of land in Egypt, the possibilities of increasing this supply, and the factors that retard that increase were discussed. This chapter will be devoted to the discussion of the main factor which determines the demand for land, namely, the population factor.

So long as man is dependent on land for the production of his essentials of life, food and clothing and so long as synthetic foods and fibres constitute a negligible part of man's consumption, the entire population of any given area, not just rural population, will always have a stake in land. For this reason the composition and characteristics of the whole Egyptian population will be discussed in this chapter. However, some emphasis will be given to the rural phases whenever it is appropriate to do so. The last part of this chapter will be devoted to the discussion of the social and economic implications of the demographic situation.

B. - Composition and Characteristics of the Egyptian Population

The word "population" ordinarily refers to the number of people inhabiting a given area, or any group of people bound together with some degree of permanence in time and

space, when the emphasis is upon the number rather than upon the social organization.[1] Population data are made available through enumerations of inhabitants with details as to age, sex, pursuits, etc., which are made from time to time for one purpose or another. This enumeration process is usually referred to as "census". The term is a Latin one and many of the population students believe that the Romans were the first to have censuses, which were for tax purposes. But according to Breasted,[2] population numberings were taken in one form or another and at intervals of various length in Pharaonic Egypt. They were necessary for a proper functioning of the country's political machine which even in the days of Menes[3] was so highly organized that the authorities needed data on not only the number of inhabitants, but also on their economic and social activities.[4]

1. Population Growth

Historians' writings as well as the writings of contemporary population students contain figures on the population of Egypt during periods as remote as 1500 years B. C. But it seems that most of these figures are estimates whose reliability is open to question. These figures indicate that

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1/ Renne, R. R., op. cit., p. 62.
2/ Breasted, J. J., A History of Egypt From the Earliest Time to the Persian Conquest, p. 44, Charles Schibner's Sons, New York, 1912.
3/ The first Pharaoh of unified Egypt. His administration (3400 B.C.) is known to have taken biennial and then annual counts, a practice generally adopted by later monarchs.
4/ El Zalaky, M.M., op. cit.

the sixth century B.C. witnessed the highest peak of Egyptian population. Conservative figures show that the population reached 18 million in that period. However, some writers believe that it was 24 million. On the other hand, there is a unanimous agreement that the Egyptian population reached its lowest ebb of 2.4 million at the end of the eighteenth century. Other figures for different periods of the country's history are available. The following is a summary of the figures available for those early periods:[5/]

1)	Year 1500 B.C. (Pharaonic Egypt)	Over 3 Million
2)	Fourteenth Century B.C. (time of Rameses II)	7 Million
3)	First Millenium B.C.	18 Million
4)	Sixth Century B.C.	24 Million
5)	First Century B.C.	3 Million
6)	Year 14 A.D. (Roman Egypt)	5 Million
7)	Year 69 A.D.	8 Million
8)	First Century A.D.	7.5 Million
9)	Year 644 A.D. (Arab Conquest of Egypt)	4 Million
10)	Early ninth Century A.D.	6 Million

Figures on the population of Egypt during the period, starting from 1798, the year of the French invasion, until the year 1873, the year of the first regular census, are available in many writings. But they also are estimates based on different observations. One can say with confidence though that the total population during that period was and still is increasing.

5/ Cleland, W., The Population Problem in Egypt. The Science Press Printing Company, Lancaster, Penn., 1936.

The following figures are a summary of these estimates and are collected from different writings:

1)	Year 1800	2,460,000
2)	Year 1810	2,486,000
3)	Year 1820	2,532,000
4)	Year 1830	3,111,000
5)	Year 1840	3,906,000
6)	Year 1846	4,346,000
7)	Year 1850	4,690,000
8)	Year 1855	4,973,000
9)	Year 1860	4,275,000
10)	Year 1870	5,934,000

Although the year 1873 marks the first regular population census in Egypt's modern history, modern methods of census taking were not introduced into Egypt until 1882. The choice of the year 1882 for the second census was unfortunate because of the political disturbances which took place in Egypt at that time. As a result the Egyptian authorities look on the figures of those two census takings with some suspicion.

The 1897 census can be considered the beginning of a regular series of six censuses usable for trend analysis. Figures concerning these censuses as well as concerning the annual inter-census rate of increase are as follows:[6]

	Year	Population	Annual Rate per 1000
1)	1873	5,250,000	
2)	1882	6,804,000	29.60
3)	1897	9,715,000	28.50
4)	1907	11,287,000	16.20
5)	1917	12,751,000	13.00
6)	1927	14,217,000	11.50
7)	1937	15,933,000	12.10
8)	1947	19,034,000 [7]	19.80

6/ Computed from figures taken from Annuare Statistique de Poche, Ministry of Finance, Cairo, Egypt, 1945.

7/ Taken from Information Sheet No. 1, Section III, Egyptian Ministry of Education. Washington Bureau, Washington, D. C., 1949.

The rationing conditions which were still prevailing in 1947 and under which the census was taken seem to have affected the figures. It seems that the figures were deliberately inflated by uneducated people with the hope of getting higher rations. Even when allowance is made for this, it seems probable that the annual rate of increase was not less than 15 per thousand, which continues the new upswing in the rate of increase which started around 1927.

The number of people is not, however an accurate measure of the importance of population in determining the amount and character of land used or methods followed in the use of land resources. Other significant factors which should be taken into consideration are cultural development, stage of technological attainment, and population trends.

2. Population Density and Man-Land Ratio

The distribution of the people in relation to the land surface is usually referred to as "Population Density". It is usually measured per square mile and thought to have considerable influence upon the type and intensiveness of land resource utilization. However, there is a general realization among modern scientists that it does not adequately indicate the levels of living achieved by the people. The man-land ratio is found to be more usable than the population density because it takes into account all human qualities bearing on productivity, and all environmental aspects, both natural and cultural, affecting the availability of

different resources.[7/]

So far as population density is concerned Egypt might be considered as an average country in the world. The following table gives the density per square mile for selected years:

Table 7. - Density of Population in Egypt*

Year	Total Area Sq. Mile	Population	Density
1882	386,000	6,804,000	less than 20
1917	386,000	12,751,000	34
1947	386,000	19,034,000	50

* Computed by the author from figures taken from different sources.

However, it will be a great mistake to rely on this measure and overlook the need for certain qualifications. For example, in 1937 more than 99 percent of the total population resided in Nilotic Egypt which comprises only about three percent of the total area of Egypt. In other words less than one percent of the population of Egypt resided in Desertic Egypt which comprises about 97 percent of the total area.

The average figure for all occupied Egypt was 1,422 persons per square mile which is the highest in the world. Furthermore, Egypt is preeminently an agricultural country and yet the density of its occupied area is higher than that

7/ Renne, R. R., op. cit., p. 66.

of heavily industrialized England, and higher than that of Belgium, the most thickly settled country of Continental Europe.[8/]

Even on the basis of persons dependent on agriculture per square mile of agricultural land the average figure for all Egypt in 1947 was 1210. For Upper Egypt it was 1,515 and for Lower Egypt it was 1,003. The prevalence of some waste and marsh lands in Lower Egypt (the Delta) is responsible for the lower population density in that part of the country.

3. Race, Nativity and Religion

There seems to be no unanimous agreement among ethologists concerning the origin of the Ancient Egyptians. During its long history, Egypt was invaded and ruled by many different races besides the Ancient Egyptians among those, one can mention Persians, Greeks, Romans, Arabs, Turks, Circassians, French, British and others. The existence of everyone of these elements for sometime in Egypt affected the race of the present day Egypt which is nothing but a composite of all those different races.

As to nativity the figures of the 1937 census indicate that 99 percent of the inhabitants of Egypt were recorded as natives. What is more striking is the fact that the same census indicates that 92 percent were born in the same province or Governorate of residence.

The number of foreigners in Egypt has not been, in

8/ Kiser, C.V. The Demographic Position of Egypt. An article in the Milbank Memorial Fund Quarterly Vol 22 No. 4. Oct. 1944. p. 387

recent years, very large. Appendix table 10 shows the population of Egypt classified as to nationality and the percentage the Egyptians and foreigners are of the total population, as well as the percentage of each nationality from the total foreign stock.

The Greeks are the most numerous. They account for more than one-third of the foreigners living in Egypt in 1937. Italians came second, followed by the British then the French and lastly the Turks. The Turks, who were the leading foreigners in 1907 with 32 percent of the total, had only 2 percent in 1937. This might be a result of the practice followed by the Turks in recording themselves as Egyptians. In spite of the small number of the foreigners in Egypt, the role they played and still play in the country's social and economic life is important. It should be noted that most of the foreign elements in Egypt are urban residents engaged in different industries other than agriculture. The number of foreigners engaged in agriculture is negligible, however, this is not true as far as the area owned by them is concerned.

As to religion, Egypt is a predominantly Islamic country. Islam is the official religion of the nation and Moslems make up the majority of the population in any division of the country. In 1937, out of the total population 91.4 percent were Moslems, 8.2 percent were Christians and .4

percent were Jews. The Christians were mainly "Copts" adherents of the old Coptic Church of Egypt. The "Copts" comprised 6.9 percent of the total population, Catholic comprised 0.8 percent and Protestant 0.5 percent.

Upper Egypt had a higher percentage of Christians, particularly "Copts" than Lower Egypt, the Jewish population in Egypt is mostly urban, while Moslems predominate in all areas of Egypt. Table 8, gives the population of Egypt distributed as to religion and the percentage each religion comprises from the total in 1927 and 1937:

Table 8. - Distribution of Population According to Religion, 1927 and 1937*

Religion	1927 No.	1927 Percent	1937 No.	1937 Percent
Moslems	12,929,260	91.2	14,552,695	91.4
Copts	946,393	6.7	1,085,281	6.8
Other Christians	235,517	1.7	218,689	1.4
Jews	63,550	0.4	62,953	0.4
Others	3,144	0.0	1,096	0.0
Total	14,177,864	100.0	15,920,694	100.0

*A) Source: Annuaire Statistique de Poche, op.cit. p. 6
B) Figures concerning 1947 are not available.

4. Rurality

The village type of settlement which prevails in Egypt differs widely from the isolated homestead type predominant in the United States. The rural-urban dichotomy is not so clear-cut and meaningful in Egypt as it is in this country.

A farm in Egypt is a place to work only and not for living as well. Even the agricultural families live compactly in the villages which differ as to size and population.

Students of the subject do not agree on the basis according to which the Egyptian population could be divided into rural and urban. Some are inclined to consider as urban the residents of only the Governorates and the capitals of the provinces. Others maintain that it is appropriate to consider as urban, localities with populations of 10,000 or more. The imposition of a house tax is taken as a basis for differentiation by some others. Finally, some students believe that occupational status is the most adequate measure. Each one of these measures has its shortcomings. For instance, it is not uncommon to find large villages of 20,000 innabitants which are completely rural and can not by any means be considered as an urban town. On the other hand, most of the capitals of the provinces have a great number of residents who work in agriculture. To me the house tax also seems to be an inadequate measure, since I lived for some time in places having a house tax but which are really nothing but rural villages. It is hoped that Egyptian economists and sociologists can agree and adopt a specific measure for differentation.

If occupational status is taken as a measure for differentation, it might be appropriate to use the term agricultural population instead of rural population.

According to the "Fellah Department" of the Egyptian

Ministry of Social Affairs the total agricultural population in 1937 was as follows:

Lower Egypt	6,312,000
Upper Egypt	5,639,000
Oases and Desert	93,000
Total	12,044,000
Total population of Egypt	15,933,000
Percentage of Agricultural Population	75.5 percent

According to the Egyptian Ministry of Agriculture the number was only 10,885,000 and the percentage was 68.4.

According to computations from the 1939 Vital Statistics,[10/] only about 27 percent of the people of Egypt resided in towns of 10,000 and over; about 73 percent were in rural villages.

Although it is hard to decide, in the case of some big towns which are merely expanded villages, whether to count them as rural or as urban places, there are definitely cities and urban communities, Towns and cities with a population of more than 20,000 inhabitants in Egypt in 1944 were as follows:

Governorates	6	towns
Lower Egypt	20	"
Upper Egypt	18	"
Total	44	"

For indication of trends in urbanization, we must resort to census figures concerning proportions of persons living in rather large cities, the Governorates and the pro-

10/ Kiser, C.V. op.cit. p. 389

vincial capitals. Although the increase in the proportion of population living in those cities since 1897 has not been considerable, it was greater for the Governorates than for the provincial capitals. While the proportion living in the provincial capitals increased from 4 percent in 1897 to 4.4 percent in 1937, the proportion living in the Governorates increased from 10.3 percent in 1897 to 14.1 percent in 1937. In the decade 1937-1947, while the rate of growth for the country as a whole was 20 percent, Cairo increased from 1,312,096 to 2,100,486 a 60 percent growth and Alexandria increased from 685,736 to 928,237, as 35.3 percent growth.

5. Age Distribution and Sex Ratio

Few population facts are more significant for sociologists and economists than those concerning the age structure and the sex of the population.

In a standard population that is neither increasing nor decreasing in total numbers, there are fewer people in each age group as one progresses upward from the age of one year to one hundred years. But a given population may not fit this pattern. Three main factors work to shape the age-sex pyramid of any countey, namely, the birth rate, the mortality rate and migration.

Historically the Egyptians are old people, but biologically they are very young. In 1937 about 47.7 percent of the population were under 20 years and almost two-thirds of the people were below 30 years. Those who were between 20

and 60 years were only 45.9 percent. This means that more than 50 percent of the population were dependents either below 20 years or above 60 years of age. Table 9 gives the distribution of the population among various age groups in 1937 and the percentage each group is of the total. The picture is that of a broad based pyramid similar to those of the high birth rate countries, such as Japan and South American countries.

As far as the sex ratio is concerned, it could be stated that the ratio is nearly balanced in the country as a whole. However, variations are to be found between the different parts. In 1937 there were about 7,967,000 males and 7,954,000 females. This made a sex ratio of 100.2.

Table 9. - Distribution of the Egyptian Population According to Age Groups in 1937*

Age Group	Population No.	Percent
Less than 1 year	490,117	3.1
1 - 4 "	1,617,397	10.2
5 - 9 "	2,208,837	13.9
10 - 14 "	1,909,103	12.0
15 - 19 "	1,346,257	8.5
20 - 29 "	2,414,438	15.2
30 - 39 "	2,333,483	14.7
40 - 49 "	1,605,316	10.1
50 - 59 "	944,771	6.0
60 - 69 "	578,072	3.5
70 - 79 "	278,768	1.6
80 - 89 "	113,781	0.7
90 and over	42,933	0.3
Unknown	37,421	0.2
Total	15,920,694	100.0

*Source: Annuaire Statistique de Poche, op.cit. p.4

In the same year the ratio in the different divisions of the country was as indicated in table 10.

Table 10. - Sex Ratio in the Different Parts of Egypt in 1937*

Division	No. of Males	No. of Females	Sex Ratio
Whole Country	7,966,675	7,954,019	100.2
Frontiers	59,708	49,902	119.6
Governorates	1,150,206	1,098,790	104.7
Upper Egypt	3,252,966	3,170,446	102.6
Lower Egypt	3,503,795	3,634,881	96.4

* Computed from figures taken from Annuaire Statistique de Poche.

It can be seen that the ratio was higher than one hundred in all divisions except Lower Egypt. In other words, males outnumbered females in all divisions except the Delta area. The greater number of females in the Delta probably results from the concentration of the textile industry of Egypt, the only industry which thus far employs females, in the Delta area.

The available data do not make the computation of the sex ratio for the different age groups possible.

6. Occupational Status

One of the striking features of the Egyptian population is the large number of dependents, children under five years, physically defective and unemployed people. Gainfully employed persons numbered 5,846,000 in 1927, and 7,422,000 (including

unproductive pupils) in 1937. This means that about 58.7 percent of the population in 1927 and 53.4 percent in 1937 were dependent on others (including children under five years of age). The percentage of employed females was very low. The following table gives the distribution of all those who were employed by different industries in 1927 and in 1937.

Table 11. - Occupied Population in Egypt 1927 and 1937*

Occupation	Year 1927		Year 1937	
	Number Employed	Per-cent	Number Employed	Per-cent
Agriculture	3,525,000	60.3	4,308,000	58.0
Industry, Mining and Building	556,000	9.6	610,000	8.2
Transport	196,000	3.3	139,000	1.9
Commerce and Finance	459,000	7.8	460,000	6.2
Public Service	190,000	3.3	171,000	2.3
Professionals	105,000	1.9	151,000	2.0
Domestic Service	221,000	3.1	257,000	3.5
Unproductive (Pupils, etc.)	596,000	10.1	1,327,000	17.9
Total	5,846,000	100.0	7,422,000	100.0
Unoccupied	8,332,000		8,499,000	
Total Population	14,178,000		15,921,000	

* Source: Computed from figures taken from different sources.

If the unproductive pupils are dropped from the employed population, the percentage of the dependents would increase. On the other hand if children under five years of age are excluded, the percentage of dependents would decrease.

The bulk of the gainfully employed population still works on land. In 1937 about 58 percent of all the gainfully employed workers were working in agriculture. The proportion would have been even higher if the many women, helping on their relatives' farms, classed in the census as unoccupied had been included.

It was mentioned before that, according to the Egyptian Ministry of Agriculture the number of workers engaged in agriculture and operations relating to it, and their families was 10,885,000 in 1937. The Fellah Department in the Ministry of Social Affairs estimated that the number of village population in the same year was 12,044,000. But neither the census figures nor those of the Fellah Department referred to the rural non-farm population which certainly exists in the Egyptian villages. If we consider the figures released by the Ministry of Agriculture as a basis, we could find that out of the 10,885,000 persons engaged in agriculture, only 4,308,000 were gainfully employed. In other words, 6,577,000 agricultural persons were dependent on 4,308,000 persons. That means that each gainfully employed worker had to support 1.5 dependent persons besides himself.

It is unfortunate that figures concerning urban, rural farm and rural non-farm, as well as the occupational status

are not available with a satisfactory degree of accuracy. It is hoped that all the shortcomings were corrected in 1947 census, whose figures are not yet available, or will be straightened out in the coming census.

Out of the 4,308,000 gainfully employed persons in agriculture in 1937, only 624,000 or 14.5 percent were females. A more clear picture of the occupational status of the farm people could be obtained by breaking the figure into its components. The following figures are taken from the 1937 census.

Number of Male Workers
Engaged in Agriculture in 1937

Wage Earners	1,457,267
Peasants Helping Relatives (unpaid)	1,226,887
Farmers Owning their Land	959,975
Farmers Leasing Land	210,385
Shepherds, Poultry and Animal Breeders	78,696
Total Male	3,683,776
Total Female	624,000
Grand Total	4,308,000

Out of the total number of females engaged in agriculture 170,362 were wage earners. This made the total number of agricultural laborers 1,627,629 or about 37.8 percent of all the gainfully employed persons. If we add to those the number of persons helping their relatives (unpaid laborers) the percentage of the agricultural laborers (paid and unpaid) would jump to around 70.9 percent of the whole number of the

actively occupied in agriculture. Egypt is known as predominently an agricultural country, but it should be called a predominently "agricultural laborers" country.

This figure concerning the agricultural laborers, although high, does not give the true picture. There are many who own a small tract of one or less than one acre and who were recorded as farmers operating their own farms. It is a pity, to mention again, that the data concerning the man-land relationship are not more accurate. As they stand they are of little help in studying the land tenure situation in Egypt because they do not permit a complete classification of tenure on the basis of either land ownership or operatorship. Many refinements to the crude classification of owners, tenants, and laborers, all of which could be found in the Egyptian census, should be introduced. Most of those who own very small parcels of land derive a good part of their income from outside work as laborers. If the number of those is added to the recorded laborers, the final percentage of agricultural laborers will jump to more than 95 percent of all the gainfully employed agricultural workers.

Crop production is the division of agricultural work that furnishes employment for almost all the agricultural workers. Other activities, such as animal breeding, gardening, forestry and others occupy a minor part of the occupied agricultural population.

In connection with age grouping of the agricultural population, it should be noted that children between 5 and 15 years of age, usually a liability in industrial areas, are an asset in the agricultural ones. This is because it is not uncommon to find a young boy doing a kind of agricultural work that suits his age, such as cotton picking. This point will be elaborated later.

Industry, as is evident from table 11 furnished employment for only 8.2 percent of the gainfully employed population in 1937. That is a surprisingly low percentage. It is even lower than that of the 1927 census which was about 9.6. Competent observers believe that the census figures are not accurate and put the industrial population (excluding transport) at 750,000.[11/] It is believed that the number of the industrial workers increased along with the acceleration of industrial activities during the second World War. The 1947 figures are not available.

Another striking feature of the Egyptian population is the low percentage of the professionals. In 1937 the number of professionals was 151,000 or only two percent of all gainfully employed persons. The composition of the figure was rather curious. Out of the total number of 151,000 about 3,744 were medical doctors, 350 were veterinarians and 600 were dentists. The number of the professors and teachers was 30,585 while the number of religion-people was 50,956.

11/ Issawi, Chas., op. cit., p. 51.

While the number of religion-people was evidently more than needed, there was a shortage in doctors, veterinarians, dentists and teachers. There was one medical doctor for each 4,252 persons and a dentist for each 26,535. The lack of medical doctors and dentists speaks for itself.

One remaining point is that concerning the number of domestic service people. More than a quarter of a million workers were domestic servants. This indicates the absence of any other better opportunity, for that great number of people are mostly agricultural laborers who left the depressed life of the village looking for a more pleasant one in the city.

The total number of the gainfully employed persons included pupils who usually do not work in Egypt and who depend completely on their relatives for subsistance and for education costs. It could be noted that their number is increasing rapidly. In 1927 they constituted 10 percent of all gainfully employed persons but in 1937 the percentage was 18.

7. The Marital Status:

It was mentioned in connection with the religious status that about 92 percent of the Egyptians are Moslems. One of the peculiar characteristics of Islam is that it does not prohibit polygamy. In other words, having more than one wife is religiously and legally possible for the Moslems. However, the social and economic implications of the matter

are rather taken into consideration than the religious laws. One other characteristic is that divorce is an easier practice in Egypt than it is in the United States and the other non-Moslem countries.

It is commonly believed that polygamy and divorce are largely responsible for Egypt's high birth rate. But according to the census data in 1937, polygamous represented only 3 percent of the total marriages. Divorce is somewhat widespread. The census figures indicate that in 1943 there were about 277,000 marriages in Egypt while the number of divorces was about 80,000. This means that for each four marriages there was one divorce. It is probable that frequent divorces and re-marriages tend to increase the chances for child-bearing. Appendix table 11 gives the distribution of the Egyptian population according to the marital status in 1937.

Marriages occur more frequently in Egypt than in most of the other countries. There are many factors which contribute to this, but it is not the aim of this work to discuss these matters with more details. It is sufficient to list here the rate of marriages per thousand persons in Egypt in different years:

Year	Number of Marriages	Rate per Thousand of Population
1939	184,000	22.3
1940	199,000	23.7
1941	236,000	27.7
1942	265,000	30.7
1943	277,000	31.8

8. Vital Statistics

Three main factors directly affect the population of any country, namely, fertility, mortality and migration. The first two are called the natural factors. The rapid increase of Egypt's population has been due almost altogether to natural increase, because immigration in modern times has been negligible.

There are three main measurements for fertility. These are the birth rate, the fertility ratio and the net reproduction rate.

In its simplest and crudest form the birth rate is merely the ratio of the number of births occurring in a given population in one year to the number of persons in the population. Multiplying this ratio by 1,000 gives a numerical expression in two digits that is very convenient to use and easy to interpret.[12/] Although this measure is simple, it is an unreliable gauge of human fertility.

The birth rate in Egypt has been and still is very high. It is the highest in the world except for the Palestine Moslems, Formosa, the Maoris of New Zealand and Mexico. Table 12 gives the crude birth rate for different countries in 1940.

12/ Smith, T. L., Population Analysis, p.194, McGraw-Hall Book Company, Inc., New York, 1948.

Table 12
Crude Birth Rate for Selected Countries*

Country	Year	Crude B.R.	Country	Year	Crude B.R.
Palestine (Moslems)	1940	47.4	Denmark	1940	18.3
New Zealand (Maoris)	1940	46.9	U. S. A.	1940	17.9
Formosa	1937	45.6	Scotland	1940	17.1
Mexico	1940	43.5	Norway	1940	16.3
Egypt	1938	43.4	Switzerland	1940	15.2
Salvador	1940	42.3	Sweden	1940	15.0
Unfederated Malay State	1940	41.4	Luxemberg	1940	14.9
Puerto Rico	1939	39.8	England and Wales	1940	14.6
Brazil	1940	38.0	France	1939	14.6

* Smith, T.L., Population Analysis, pp. 202-203, McGraw-Hill Book Company, Inc., New York, 1948.

Many causes contributed to this high birth rate in Egypt. The essential of these are:

(1.) The poverty and general wretchedness of the most numerous group in the country, the farm laborers, makes procreation one of the few pleasures accessible to him.

(2.) The culture of the people gives prestige to the big families, especially in rural areas. This makes for early marriages which raises the birth rate.

(3.) The influence of the cotton economy in the country,

which provides employment for children, turns the child into a financial asset at the early age of five.

(4.) The influence of the widespread illiteracy, and that of religion upon the people, make them both ignorant of the use of contraceptives and vigorously opposed to abortion. The point of not using any contraceptives is rather encouraged by the fact that those devices are still complicated and costly. They are beyond the financial ability of the poor farmer.

Appendix table 12 reports the trend in birth rates in Egypt from 1901 - 1945. During this period there was no considerable change in the rates, the trend being neither up nor down. In my estimation, this might continue for sometime and unless radical change in ideas of the prople, the institutions, and the factors causing the high birth rate should take place in the very near future, which is not likely, no considerable change is possible.

The second index of use in gauging the rapidity with which populations reproduce is the fertility ratio which is obtained by relating the number of young children to the number of women of child bearing age. Ordinarily the ratio is obtained by dividing the number of childred under five years by the number of women aged 15 to 44 inclusive and then multiplying the product by 1000. This measure can be had only when census is taken. It has some other disadvantages but is

a more reliable measure than the crude birth rate.

Table 13 indicates that there has been a general downward trend in the fertility ratio.

Table 13. - Fertility Ratio in Egypt in Different Census Years*

Year	No. of Females (15-49)	No. Children Under 5 Years	Fertility Ratio
1897	2,400,000	1,680,000	700
1907	2,609,000	1,776,000	681
1917	3,026,000	1,754,000	579
1927	3,513,000	2,031,000	575
1937	3,852,000	2,108,000	545

*Computed by the use of figures taken from Annuaire Statisitique de Poche.

The third measure of fertility is the net reproduction rate. It is computed by relating the data on the fertility of a population to those on mortality and expressing the result as a percentage of that necessary to maintain a stationary population. This is a rather complicated measure and it is sufficient to indicate when the rate is 100 the population is stationary or just replacing itself. If the rate is more an increase is taking place and if the rate is less, the population is failing to replace itself.

According to the international vital statistics 1937-44 the net reproduction rate for Egypt in 1937 was 1.4. This indicates an increasing population.

Although Egypt is known for its high fertility, it is also known for its high mortality. The vital statistics document an enormous human wastage in the increase of the

Egyptian population. This is because of the high death rate in the country.

There are two main measurements of mortality, namely the death rate and life expectancy. The former is comparable in most essential to the birth rate and is secured by the same procedure.

According to the census figures of 1937 Egypt had the highest death rate in the world. It was 27.2 per thousand. For the sake of comparison appendix table 13 gives the death rates in some selected countries in 1937.

For indication of trends in death rates in Egypt, appendix table 14 gives the yearly death rate for the period (1901 - 1940). As in the case of birth rates, no considerable change could be noticed. But according to my own observations and knowledge about the recent spread in health and medical services to the Egyptian villages, the death rate should be decreasing. The projects of the social centers in the rural areas of Egypt, which started functioning in 1941, is a great and helpful factor in bringing the death rate down. It should be mentioned here that figures concerning births and deaths should not be considered highly reliable, since according to my own experience during my work in the rural centers the registration procedure is not accurate.

The crude death rate if broken by age group will disclose a higher rate for infants who are less than one year

and also for the age group 1 - 4 years. The death rates for infants less than one year in some recent years were as follows:

Year	Death Rate per 1000 (for less than one year)
1939	161.0
1940	150.0
1942	168.0
1943	166.0

It is worth mentioning, in connection with age groups, that in 1940 out of the 444,000 total deaths which took place in Egypt 241,000 were four years of age and less. This means that more than 50 percent of all deaths were four years of age and less.

Appendix table 15 gives the infant death rate in some selected countries. Egypt, while not having the highest rate, still ranks high.

It is the opinion of the author that poverty, illiteracy, disease and dirtiness which all exist in the Egyptian villages, are the main cause of the high infant mortality rate. It is also believed that the near future will witness lower infant mortality rates.

The second measure of mortality is the expectation of life. Life expectancy is usually expressed in what is known by "life table", which shows the average duration of life for persons born at the same time and for persons of any given age who are alive at the same time. It indicates the average

number of years that those of any given age from birth on up may expect to live.

The procedure of computing the life table is very complicated.

Appendix table 16 gives expectation of life in some selected countries.

Egypt had the second lowest expectation of life after India. Most striking is the great contrast between the long expectation of life at birth in a country like Netherlands and that of Egypt. Whereas in the former, children at birth have on the average more than 60 years of life ahead of them, in Egypt it is only about 34 years. As age increases the differentials are greatly decreased. This means that if Egypt could find a solution for the high infant mortality, great human loss could be saved and the population increased faster.

It is interesting to mention that diarrhea and enteritis are the diseases that kill more infants in Egypt than any other disease. Acording to the International Vital Statistics 1939-44 these diseases caused in Egypt in 1944 about 55,000 deaths out of the total of about 444,000. Appendix table 17 gives the number of deaths reported and death rates by cause in Egypt in 1940 arranged according to the magnitude.

9. Migration

Migration is one of the three factors that help account for the number of inhabitants and distribution of the population, namely, fertility, mortality and migration. Its importance in not confined to its influences on the number and distribution of the inhabitants, but it is of great social significance as well. In formulating his "Population Law" Malthus assigned a temporary and inefficient role to migration as a means of relieving population pressure. He saw clearly its effects upon the mother country as well as the country of destination. But from the standpoint of the mother country, he believed that such a policy, as a permanent means of relieving pressure, was useless, since it would result almost immediately in somewhat earlier marriages and a greater number of births. Hence the pressure would soon be as great as or even greater than it had been.[13/]

There are two main types of migration. Those are, internal and international migration. International migration is that which involves movement between two different countries. From the point of view of the country sending the people, it is emigration, but is immigration from the point of view of the country receiving the people. Internal migration on the other hand is that which takes place within the boundaries of any one country and the important variety of it is that from

13/ Thompson, W.S. Population Problems. p. 25 McGraw-Hill Book Company, Inc. N.Y. 1930.

rural areas to urban centers.

As far as the influence of migration on the number and distribution of the Egyptian population is concerned there are two facts which are well known to those who studied the demographic position of Egypt. Those are:

(1.) The enormous increase in the Egyptian population which took place during the last fifty years occured almost completely through natural factors, fertility and mortality, and the migration's effect was negligible.

(2.) That the Egyptian is by nature sedentary and loath to emigrate. Many people of the countries surrounding Egypt migrated to the New World while hardly an Egyptian left his country to come to America. This attitude is not only toward international migration, but also towards internal migration. Once he is settled in a community the Egyptian hates to migrate to another community. This fact is demonstrated by the widely varying density of population in the different parts of the country. It was mentioned before that the 1937 census indicated that 92 percent of the inhabitants were born in the same province or Governorate of residence.

Emigration from Egypt is practically negligible. But there is some internal migration in spite of the strong anti migration feeling which dominates. Two main streams are easily observed. The first is the migration from the rural villages to the urban centers, especially the Governorates.

Practically all the Governorates gained in population during the decade of 1937-1947. The population of Suez which numbered 49,686 in 1937 jumped to 108,250 in 1947. This is 118 percent increase. Cairo's population increased by 60 percent and that of Alexandria increased 35 percent. Most of the other big cities had the same situation.

The second stream is that from Upper Egypt to Lower Egypt, the Delta. Uper Egypt is more densely populated than the Delta and in 1937, excluding the province of Giza which borders the Governorate of Cairo, it was found that over 32,000 persons born in Upper Egypt were living in the Delta, against 12,000 persons born in the Delta and were living in Upper Egypt.

This internal migration is not strong enough to balance the labor shortage which is suffered during some seasons by the northern provinces especially "Gharbia". This shortage calls for recruiting of agricultural laborers which are called in Egypt "Tarhella" from the heavily populated provinces. The economic and social implications of that will be discussed later on. Also the reliance on migration as a relieving factor for the population pressure in Egypt will be discussed in the chapter on "Remedies".

C. - Effects of the Demographic Position on the Demand for Land

1. The Population Pressure and the Position of Landowners in Egypt

As was indicated earlier Egypt is still an agricultural

country with the majority of its people relying on farming for their livelehood. In spite of the progress made in industrialization industry does not as yet present much of an alternative source of employment for the Egyptian population. Unless industry receives considerable impetus and protection from the government in the future it will probably continue to be subordinate to agriculture as a pillar in the country's economy.

In agriculture land plays a more important role, as a factor of production, than that it plays in any other industry, and, assuming no or only slight technological progress, an agricultural country with limited cultivable area will always suffer a decreasing standard of living unless it has a stagnant population. The law of diminishing returns will always set a limit above which the product produced from a definite land area can not be increased regardless of increasing application of labor and capital in the production process. Egypt is one of the countries in this position. Its response to technological changes has not brought spectacular increase in production, its cultivable area has increased very slowly especially since the beginning of the second decade of this century (because of physical limitations and the slow development of irrigation and drainage projects), and its prpulation is increasing rapidly despite the heavy toll of deaths. The result is an ever increasing population pressure on the means of subsistence and a continuous decrease in the standard

of living of the majority of the Egyptian population. Because of the slowness of land reclamation during the interwar period, there was only slight increase (2 percent) in the cultivable area. However, due to the conversion of about 200,000 feddans to perennial irrigation there was an increase of about 10 percent in crop land area.

Area	1919	1939	Percentage increase
Cultivated area	5,200,000 Feddans	5,310,000 Feddans	2
Crop area	7,710,000 "	8,450,000 "	10

During this period the total population increased from 12,751,000 in 1917 to 15,933,000 in 1937, an increase of 25 percent. With this increase, population growth far outstripped the expansion of both the cultivated area and the crop area. The net result was a decrease in the standard of living of the Egyptian farmer. This can be ascertained by studying the consumption figures for the interwar period which are presented in the following table.[14/]

Table 14. - Consumption of Staple Articles 1925-1938 (Ave. 1920-37 = 100)*

Year	Tobacco	Coffee	Tea	Sugar	Meat	Textiles	Cereals
1925	111	89	87	106	107	116	105
1926	110	108	76	114	107	88	103
1929	113	109	117	148	102	105	105
1930	103	111	109	130	101	92	104
1933	77	98	124	99	101	105	90
1934	81	76	145	145	97	101	97
1937	86	90	143	124	94	105	95
1938	x	x	139	124	97	95	99

x Figures not available
* Issawi, Chas. op.cit. p. 55
14/ Issawi, Chas. op.cit. p. 55

All the indices, excluding sugar and tea, showed a decreasing trend. Figures on sugar are misleading and should not be taken on their face. Sugar was not and to a considerable extent still is not a peasant's commodity.

The consumption of cereals which constitute the backbone of the peasant's diet showed a decreasing trend. That of meat and textiles showed the same trend. This decreasing trend could appear more dramatic if computed on a per capita basis, since the trend of total consumption was down in spite of the increase in the number of mouths to be fed.

Despite the different opinions concerning population pressure in Egypt, it seems obvious that there is a surplus agricultural population which could be taken away without adversely affecting the national agricultural product. Professor Cleland,[15/] basing his estimate of labor requirements on actual observation, found that under the existing methods it was possible for a peasant's family to cultivate an area five times the average area cultivated by that family. This means that the national agricultural product could at that time have been produced by as little as one-fifth of the labor force used in its production. Professor Cleland considers that a safer estimate of the surplus would be one-half of the 1937 farm population. He also maintains that with half the degree of mechanization found on American farms, 10 percent of Egypt's farmers could do the work now done.

15/ Cleland, W.I. Population Plan for Egypt, L. Egypte Contemporaine, May 1939.

Additional light is shed on the subject by the investigation made by the Fellah Department of the Egyptian Ministry of Social Affairs concerning the average number of days a farm laborer works every year in the different provinces. The result of this study can be summarized as follows:

Table 15. - Average No. of Work Days per Average Egyptian Farm Laborer, by Provinces, 1945.

Province	Man	Woman	Boy or Girl
Gharbia	185	140	140
Dakahlia	220	135	145
Beheia	210	170	210
Monufia	210	-	160
Sharkia	180	120	170
Giza	220	160	190
Ben Suef	200	160	160
Minia	180	-	115
Assyut	150	100	100
Kenna	120	-	100
Aswan	115	-	90
Average No. of work days	182	144	144
Average No. of unemployed days	183	221	222

This investigation, which confirms Professor Cleland's observations, indicates that agriculture in Egypt is overloaded with a surplus of population, and that industry and other economic activities do not present an alternative to farming, and are not able to offer employment to the increasing population. This has resulted in a great number of unemployed people, a great number of partly employed, a very low wage and very low

standards of living. The majority of the farm people are poor, undernourished, illiterate and a victim of two or three different diseases. This is primarily a result of heavy population pressure and reflects the operation of the Malthusian Doctrine.

Unfortunately the future is not any brighter, and unless drastic measures are taken by the government to alleviate the problem, things will grow worse. In Part "B" of this chapter it was indicated that the birth rate is not decreasing and that it will continue for some cultural reasons to be very high. On the other hand it is my opinion that with the spread of medical services to the villages, which has taken place on a wide scale since the beginning of this decade, the death rate will go down faster than the birth rate. This will complicate the population problem further and unless something is done to check it, epidemics such as malaria, typhus and cholera will continue to visit Egypt from time to time to harvest their immature crop of poor human beings.

This population pressure means an ever increasing demand for land. Land is essential in farming and finds no substitute in capital or any other factor of production. According to the secular law of diminishing return, even with the technological improvements in agriculture, the point must eventually be reached at which the law will begin to operate, and unless the supply of cultivable land in Egypt is increased by some way,

or the fast growth in population is checked by some way also, the pressure will be intensified. The implications of that pressure are very important. On the one hand it adds to power and the privileges the land owners have in the social and economic world, which is reflected in the race for the ownership of land by those who accumulate money, and in the ever increasing prices of land which reaches, in some cases unbelievable figures. On the other hand it adds to the depressed and weakened position and bargaining power of the agricultural laborers who own no land, which is reflected in the very low wages they get and the very low standard of living they enjoy.

2. The Need for Governmental Regulation

The vast majority of the farm people are either farm laborers or owners of very small tracts of land. These people, more than 90 percent of the farm population and about 66 percent of the total population of the country, live miserable lives and suffer many inconveniences. To raise their standards of living some kind of governmental control of landed property is needed. As Renne writes: "Property is a social trust, and the individual is nothing more or less than a steward taking care of the property during the period when society approves and permits such stewardship. The social right to regulate private property is basic to the institution of property itself."[16/]

In controlling property rights two objectives should be kept in view:(1.) raising the standard of living of the farm

16/ Renne, op.cit. p.131.

laborers and amall land owners who make more than two-thirds of the total population, and (2.) attaining an adjustment between the rights of the individual and the society as a whole that will not discourage or destroy private initiative. Governmental control and regulation is neither unusual nor untried. It has been tried by the governments of many other European countries and even by the United States, the most capitalistic country at the present time. It limits and modifies but need not work at cross purposes with the free enterprise system. Rather it is merely a measure to save the system by correcting isolated abuses or weaknesses especially in the fields where competition has been drastically restricted so that the laws of supply and demand no longer operate as they are supposed to. In fact government interference is basic for the survival of democracy which is a compromise between individualism and equality.[17] It is called by Nathan Robertson the "Safe Enterprise System". Robertson in one of his articles cited the many controls and interferences the United States government exercises over different segments of the country's economy and spoke of this safe enterprise system as follows: "This safe enterprise system is almost as different from the one that Adam Smith talked about, or the system we once had as the economy of Nazi Germany or of Soviet Russia. But it is just as American and goes with democracy and liberty as naturally as the original".

17/ See, Nathan Robertson, "What Do you Mean, Free Enterprise?" Harper's Magazine, November 1948, p. 70.

Even in Egypt the government exercises many regulations in many of the other segments of the country's economy, and there is nothing against subjecting landownership to regulations which might result in more prosperity and a higher standard of living for the majority of the people.

Very small tracts of land, as well as very large estates, should be discouraged. What Egypt needs is more family farms which will add to the solidarity and the welfare of the farm people, and which, as will be shown in Chapter 3, could add to the productivity and the wealth of the country as a whole.

CHAPTER III

THE LAND TENURE SYSTEM IN EGYPT

A. - The Evolution of the Land Tenure System

From the Pharaonic days down to the Arab invasion, the ownership of land in Egypt was vested in the ruler. The cultivators were allowed to cultivate the land and enjoy its product on payment of the land tax which was levied on each village as a whole. While the permission to cultivate the land was a privilege which could be withdrawn at any time, the distribution of the cultivated area and the tax to be paid was left to the villagers themselves.

Under the Arab rule, Egypt was considered as "Kharadj land" which had to pay the land tax imposed by the ruler. Another kind of land, in the Arabs' conception, was the Ouchouri land which is privileged and pays only the tithe. The farmer was allowed to cultivate the land, so long as he paid the tax. But he had no right of ownership. The land could be taken from him at any time for public works without compensation, and he had no right to dispose of it by any means. When he died his heirs had no guaranteed right to receive it.

Under Turkish rule, the Moultizims were responsible for the collection of a land tax. Each of them was responsible for an area which consisted of a certain number of villages. This system was a family privilege handed down from father to son. The Moultizims were allowed a certain area of tax-free land called Wissiya land, and had the right to corvee' the

farmers of his district to cultivate his land.

The Rizka lands supported another kind of land tenure which prevailed during the rule of the Turks. These lands were large estates given in the name of the Sultan to officers and high officials and were exempted from payment of taxes.

Another large group of tax-free land was formed by the creation of Wakfs, or religious foundations. This type of land could not be alienated, and the government had no power over it. The revenues of the Wakfs could be constituted to the benefit of one person, the members of a family, or for other philanthropic purposes.

When Mohamed Aly defeated the Mamelukes and established himself as the ruler of Egypt in 1805, he changed the whole economic system. So far as the tenure system was concerned, his first attack was on the "Iltizan" system, the land tax collection. In 1808, Mohamed Aly requested the Moultizims or tax collectors to state their annual profit from their operation. They, fearing that he intended to demand bigger contributions from them, estimated their profits as low as possible. The smart ruler abolished the system and granted the Moultizims a life-pension based upon their estimated profits, Taxes were then collected by the government agents. Within a few years most of the Moultizims had died and their pensions were extinguished.

The Wissiya estates which were in the hands of the tax collectors were left to them. But when the Mamelukes were completely defeated in 1811, their private estates, as well as the

Wissiya lands of the Upper Egypt's Moultizims were confiscated by the ruler. By doing so, Mohamed Aly became the owner of practically all the land in the country. In 1814, the last titles to land fell into his hands. The Moultizims of Lower Egypt were allowed to retain their land, but later the land tax was imposed on them. The right of succession to Wissiya estates was allowed by decree in 1855 and in 1859. The Law of "Moukabala", which covered the Wissiya lands, left them practically as the Kharadj taxed land.

The Rizka lands, grants of tax-free land made in the name of the Sultan, were taxed by Mohamed Aly and under the law of 1858 were assimilated with Kharadj lands.

In 1813 a general cadastral survey was made and the cultivated land was divided between the farmers. From three to five feddans were inscribed in the farmer's name on the official registers. This did not mean that the ownership of the land itself was granted to the farmer. Because it was definitely laid down that the ownership of all the land was vested in the government, and the farmers acquired an usufructuary right only. They had no right to sell or mortgage the land and it could be taken from them by the government for any reason without compensation. But the farmers were usually permitted to use and exploit the land so long as they paid their taxes.

The fact that each farmer had his cultivated area inscribed in the official registers was a step in the direction of individual ownership, which development was actually taking

place throughout the rule of Mohamed Aly. In 1846, the holder of a piece of land was given the right to mortgage his land, or to transfer it to another person.

The principle of ownership in land was further affirmed by Mohamed Aly when he granted some of the rich notables areas of uncultivated land in full ownership and tax free for a period of ten years, on condition that they bring the land under cultivation. this land was known as the "Abadieh land". Foreigners were usually forbidden to become owners of land. But some of the Abadieh lands were given to rich foreigners by Mohamed Aly who emphasized their right to ownership of land by giving them a certificate of ownership. Their right to hold land was finally confirmed by Imperial decree from Constantinople in 1867.

Mohamed Aly's second point of attack was on the Wakf system. He amended the system by putting his hands on all the land entailed for philanthropic purposes. In return he financed those works from the government budget and he gave the managers of the Wakfs annual pensions.

In 1854, the year in which Said ascended to Egypt's throne.[1] the registration of land was further refined. The village sheikhs who had handled the registration had abused their power, A new decree stated that all transfers of land must be made by contract registered in court. The principle of family inheritance also was legalized at that time.

1/ Mohamed Aly turned the throne over to his son Ibrahim in 1848. Ibrahim died that same year and was succeeded by Abbas who died in 1854. Mohamed Aly died in 1849.

Land left by the parents was inherited by the male issue, but women of the family might be granted the land under certain circumstances.

In 1858 the inheritance principle was further affirmed and the transfer of land was authorized to the heirs of the tenant without distinction of sex. This was in accordance with the Islamic law. It was further stated that any tenant who had cultivated the land for a period of five successive years, without any delay in paying taxes, should become the owner of the land without any dispute. By that time the tenant had the right to mortgage, sell or leave the land by inheritance to his heirs. This does not differ much from the right of full ownership. The only limitation was that the state reserved to itself the right to expropriate the land without giving any indemnity.

In 1865 a decree was enacted which required each tenant to obtain from the provincial court a certificate stating that he is the life tenant of the land he occupied. The finial step in legally recognizing the tenant's right to full ownership in the land he occupied was taken by the Law of Moukabala in 1871.

This law, a desperate attemp on the part of Ismail and his minister of finance to raise money when they found it difficult to borrow from the foreign financiers, gave land owners

who paid six years in advance:

(1.) Absolute property rights in the land on which they had paid advance taxes,

(2.) reduction of the land tax to one-half; and

(3.) interest at 8.5 percent on the amount of money paid in advance.[2/]

The law covered both the Wissiya and the Abadieh lands. It was repealed and re-enacted in 1876 and finally abrogated in 1880;[3/] and another decree was passed granting full rights of ownership in land on which the Moukabala had been paid in whole or part. Finally this was confirmed by the Law of Liquidation in 1880.

In 1869 a decree was enacted changing the rule of inheiritance. It stated that on the death of a tenant his property would be registered in the name of his eldest son. The product of the land, however, would be divided among all the members of the family. But this law was abrogated in 1881 and the succession was decreed to be according to the rules of the Islamic law. The legal machinery for registration was completed by the establishment of the Mixed Courts in 1875. And by 1881 practically all of the land in Egypt had passed in full ownership to its holder.

2/ Lebieta, M. op.cit. p. 322

3/ Cronchley, A.E. The Economic Development of Modern Egypt. Longmans, Green and Co. London 1938.

In 1899 the land tax was standardized at about 29 percent of the annual rent with a maximum of 164 P.T.[4] on any feddan. Between 1892 and 1907 a complete cadastral survey was made of the country and a new schedule of tax rates was introduced and came into operation in 1912. The principles of taxation formulated at that time continued in operation until they were amended in 1939. The 1939 amendment fixed the rate of taxation at 16 percent of the estimated annual rental value of the land. These new rates remained in operation until they were again amended in 1949.

In this brief history of the evolution of the land tenure system in Egypt; two very important things can be noted:

(1.) Whereas communal ownership of land, which is the mark of a backward order of society, and which hinders the development of better methods of cultivation, was abolished and gave way to the rights of private property at an early date in Western Europe; in Egypt the rights of private property did not develop until the second half of the nineteenth century.

(2.) That the concentration of land holdings in few hands, while the majority of the farm people are either laborers or owners of very small pieces of land, had its origin in the inequality of the opportunity for getting land which prevailed during the Turkish rule, and continued to prevail with some modifications during the more recent times of the country's history.

4/ P.T.= Egyptian paistre. It equals .01 of the Egyptian pound.

B. - The Present Day Situation

1. Land Ownership in Egypt

With the removal of the last restrictions on ownership of land at the close of the nineteenth century, owners acquired the equivalent of fee simple rights in their estates. This development brought a keen race for land ownership, a race based on the social as well as the economic implications of land ownership. Even those who accumulated small amounts of money bought themselves whatever area they were able to pay for. The number of landed properties increased from 767,000 in 1896 to 1,557,000 in 1913, an increase of 103 percent. Since that time the number has been steadily increasing. However, the rate of increase has been decreasing. Between 1913 and 1929 the rate was 40 percent, between 1929 and 1939, it was 14 percent, and between 1939 and 1945 it was 5 percent. By 1945, the number of landed properties had increased to about 2,606,000.

On its face this increase looks lika a desirable change. Unfortunately this is not the case at all. To begin with these figures are not an adequate guide of land ownership in Egypt for the following reasons:

(1.) These figures indicate the number of landed properties and not that of proprietors; thus it is possible that one land owner may own several properties in different villages and as a result, he would be counted as two or three proprietors,

according to the number of villages he may own land in. Many of the big owners own land in more than one village and sometimes in more than one province. As a result, the number of big land owners reported is usually exaggerated.

(2.) In many cases when the head of the family, under whose name the property is registered, dies the heirs divide the property between themselves but fail to register this fact with the court. As a result, the whole property continues to appear in the official books as one unit owned by one owner, which is not true. This practice considerably changes the picture of land ownership in Egypt by making the number of land owners, particularly the small ones, appear smaller than it should be.

Also, this increase in the number of landed properties is mostly accounted for by the increase in the number of the very small holdings which do not provide, by any means, a minimum subsistance level. The owners of these properties are usually employed as part time laborers. Table 16 shows the change in land ownership from 1890 to 1945.

The increase in the number of the very small holdings is clearly shown by Table 16. While the total number of holdings was increased from 767,000 in 1890 to 2,606,000 in 1945, the number of small holdings of less than five feddans increased from 611,000 to 2,447,000 in the same period. This means that the number of holdings with five feddans or more increased from abour 156,000 in 1896 to about 159,000 in 1945. This very

Table 16. - Land Ownership in Egypt in Some Selected Years*

Holdings		1896	1913	1929	1939	1945
All Holdings	(No. of Holdings	767,000	1,557,000	2,176,000	2,482,000	2,606,000
	(% increase in Number		103%	40%	14%	5%
	(Area in Feddans	5,002,000	5,293,000	5,794,000	5,837,000	5,881,000
	(% increase in area		5.8%	9.5%	0.7%	0.8%
	(Average size of Holdings (Fed.)	6.5	3.4	2.7	2.4	2.3
Less than one Feddan	(No. of Holdings		943,000	1,476,000	1,752,000	1,844,000
	(%increase in Number			57%	19%	5%
	(Area in Feddans	1/	406,000	569,000	702,000	753,000
	(% increase in area			40%	23.4%	7%
Less than 5 Feddans	(No. of Holdings	611,000	1,411,000	2,019,000	2,323,000	2,447,000
	(% increase in Number		131%	43%	15%	5%
	(Area in Feddans	994,000	1,419,000	1,706,000	1,915,000	1,969,000
	(% increase in area		42.6%	20.4%	12%	2.8%
5-49.9	(No. of Holdings	144,000	133,000	144,000	146,000	147,000
	(% increase in Number		-8%	8%	1.4%	0.7%
	(Area in Feddans	1,316,000	1,633,000	1,759,000	1,674,000	1,774,000
	(% increase in area		-10%	7.7%	-4.8%	6%
50 and up	(No. of Holdings	12,000	13,000	13,000	13,000	12,000
	(increase in Number		8.3%	-	-	-7.7%
	(Area in Feddans	2,192,000	2,241,000	2,327,000	2,180,000	2,138,000
	(% increase in area		2.2%	3.8%	-6.3%	-2%

*Source: Computed by the author from figures taken from Annuaire Statistique op.cit. p.290, Issawi, Chas. op.cit. p. 73 and other sources.

1/ Figures not available.

slight change is accounted for by the increase in the number of the holdings of 5 - 49.5 feddans which was 144,000 in 1896 and 147,000 in 1945. The number of holdings of fifty feddans and up was 12,000 in both 1896 and 1945. Another important fact which should not be overlooked is that in 1945 about 75 percent of the holding in "less than five feddans" group were less than one feddan in size.

The total area of all the holdings of five feddans and up was 4,008,000 feddans in 1896 and slightly decreased to 3,912,000 in 1945, while the area of the holding of less than five feddans increased from 994,000 to 1,969,000 feddans in the same period, an increase which absorbed not only the whole increase in the cultivable area, but also the reduction which took place in the area of the other holdings. Thus the result of the past fifty years of unrestricted ownership of land has been an enormous increase in the number of the very small holdings which can not provide a minimum subsistence, while the number and area of the medium and the large estates has remained the same or encountered only negligible change. This has not been a desirable trend, because even though it has brought an enormous increase in the number of owners, most of them live on subsubsistence units and still have to work as laborers in order to survive, and actually are not much better off. On the other hand, this situation involves waste of time and hinders technological progress in agriculture.

The average size of holdings in the country steadily decreased from 6.5 feddans in 1896 to 2.3 in 1945, as Table 17 shows. The ownership picture differs considerably for each of the three different groups of land owners, namely: the nationals, the foreigners and the Wakfs. In 1945 there were about 2,582,000 national land owners owning 4,838,000 feddans with an average holding of 1.9 feddan, about 19,000 Wakfs owning 661,000 feddans with an average holding of 34 feddans, and about 4,600 foreigners owning 382,000 feddans with an average holding of 83 feddans.

In 1945 the very small holdings of less than one feddan numbered 1,844,212 out of 2,605,917 or about 71 percent of the total. Holdings of 1 - 1.9 feddans numbered 338,959 or 13 percent of the total and those of 2 - 4.9 feddans numbered 263,782 or 10 percent of the total. This makes the total number of all the holdings less than five feddans about 2,446,953 or 94 percent of the total. In terms of area the picture was different since all the holdings of less than one feddan accounted for only 753,173 feddans or 13 percent of the total area, an average size of 0.4 feddan per holding. The area occupied by the holdings of 1 - 1.9 feddans was 498,495, 8 percent of the total area or an average of 1.47 feddan per holding; and that occupied by holdings of 2 - 4.9 feddans was 717,813 feddans or 13 percent of the total with an average of 2.72 feddans. The whole group of holdings of less than five feddans occupied 1,969,481 feddans or 34 percent of the total area with an average

Table 17. Distribution of Land Ownership in Egypt in 1945*

Group	Number of Holdings		Area in Feddans		Average size of Holdings (feddans)
	Total No.	% of total	Total No.	% of total	
Less than one fed.	1,844,212	71.00	753,173	13.00	0.40
1 - 1.9 feddans	338,959	13.00	498,495	8.00	1.47
2 - 4.9 "	263,782	10.00	717,813	13.00	2.72
Total - less than 5 feddans	2,446,953	94.00	1,969,481	34.00	0.80
5 - 9.9 feddans	85,014	3.00	570,174	10.00	6.70
10 -19.9 "	40,969	1.60	561,111	9.00	13.69
20 -29.9 "	11,720	0.50	284,800	4.80	24.21
30 -49.9 "	9,304	0.40	357,975	6.10	38.47
50 -99.9 "	6,688	0.25	457,524	7.90	68.25
Total 5 - 99.9 Feddans	153,695	5.75	2,231,584	37.80	14.52
100 - 199.9 Feddans	3,121	0.15	433,122	7.00	138.77
200- 399.9 "	1,189)		360,743	6.10	308.16
400 - 599.9 "	479)		243,524	4.10	508.40
600 - 799.9 "	160)	0.10	106,264	1.80	663.96
800 - 999.9 "	85)		76,424	1.20	897.92
More than 1000 "	235)		459,918	8.00	1957.00
Total-100 and up	5,269	0.25	1,679,995	28.20	318.85
Grand Total	2,605,917	100.00	5,881,060	100.00	2.25

*Source: Computed by the author from figures taken from Annuaire Statistique, op.cit. p. 290-91 and other sources.

holding of 0.8 of one feddan. At the same time the number of all holdings which were between 5 and 99.9 feddans was only 153,695 or 5.75 percent of the total number. They occupied an area of 2,231,584 feddans or 37.8 percent of the total area and had an average size of 14.52 feddans. The number of all the holdings which were a hundred feddans or more was only 5.269 or 0.25 percent of the total. They occupied an area of 1,679,995 feddans or 28.20 percent of the total area and averaged 318.85 feddans in size. Thus while 0.25 of all the land owners (and probably less than that for the reasons mentioned before) owned 28.2 percent of all the area, 94 percent of the owners (and probably more than that for the reasons mentioned before) owned only 34 percent of the area. This unbalanced ownership situation is a chief cause of the very low standard of living which the majority of the farm people in Egypt have. It also is the stumbling block in the way of the technological progress in the field of agriculture.

If analysis is made in terms of sizes of farms, instead of holdings, it also appears that the size of the average Egyptian farm is very small. It should be indicated first that the term farm, as used in the agricultural census of Egypt, has a different meaning than that used in the United States. The agricultural census of Egypt 1929 defines the Egyptian farm as follows: The farm from the point of view of the census, is any land used partly or wholly for production of crops or breeding of trees. It is superintended by one person whether by the

right of ownership or by lease. The cultivated area may be concentrated or scattered. The farm may be an orchard or a field for vegetables. It may include crops, fruits, or pasture.[5] As to the area, the consultative committee for the census in Egypt found that the distribution of property in Egypt necessitates the enumerating of all farms however small, as the number of those who own small areas is too large to be overlooked. The classification of a farm involves no minimum income requirements.

According to the Egyptian ministry of Agriculture.[6] the total number of farms in 1947 was 1,000,063 and the area those farms occupied was 6,036,879 feddans. Thus the average size of the Egyptian farm was about six feddans in 1947. In 1929 this average was also six feddans. The complete picture of number and sizes of farms in 1947 was as in Table 18.

Although the average size of the Egyptian farm was about six feddans in 1947, which is a small size compared with the average size of farms in the other advanced countries, actually the majority of the farms were far smaller than this average. Farms of less than one feddan represented more than 37 percent of the total number of farms in the country. Those between 1 - 1.9 feddans accounted for about 20 percent of the total and those which of less than five feddans for more than 80 percent of the total with an average size of 1.40 feddans.

5/ El-Zalaky, M. op.cit.
6/ Egyptian Ministry of Agricultureal, Agricultural and Economic Statistics op.cit. 39.

Table 18. Number and Sizes of Farms in Egypt in 1947*

Group	Number of Holdings		Area in Feddans		Average Size of Farm
	Total No.	% of total	Total No.	% of total	
Less than 1 Feddan	373,692	37.37	153,180	2.54	0.41
1 - 1.9 "	204,132	20.41	275.847	4.57	1.35
2 - 2.9 "	112,691	11.27	265,289	4.39	2.35
3 - 3.9 "	69,824	6.98	234,628	3.89	3.36
4 - 4.9 "	45,781	4.58	199,622	3.30	4.36
Total less than 5 feddans	806,120	80.61	1,128,566	18.69	1.40
5 - 9.9 "	100,142	10.01	684,853	11.34	6.84
10 - 19.9 "	50,543	5.05	689,081	11.42	13.63
20 - 49.9 "	27,683	2.77	833,947	13.81	30.12
50 - 99.9 "	8,778	0.88	604,914	10.02	68.91
Total 5 - 99.9 "	187,146	18.71	2,812,795	46.59	15.03
100 -199.9 "	4,053)		566,113	9.21	68.91
200 - 499.9 "	2,011)	0.68	598,174	9.92	297.45
500 - and up	733)		941,231	15.59	1284.08
Total 100 and up	6,797	0.68	2,095,518	34.72	308.30
Grand Total	1,000,063	100.00	6,036,879	100.00	6.03

*Source; Computed by author from figures taken from Agricultural and Economic Statistics, op.cit. p. 39.

On the other hand, farms of between 5-99.9 feddans accounted for about 18 percent of the total and had an average size of about 15 feddans, while those over a hundred feddans represented only about 0.7 percent of the total and averaged about 308 feddans in size. The situation can be summarized as follows:

About 80 percent of the Egyptian farms have an average size of 1.4 feddans, about 19 percent of them have an average size of 15 feddans and less than one percent have an average of 308 feddans. In terms of area the picture is different, since 80 percent of the farms of less than five feddans occupied only about 19 percent of the total area, the 19 percent of farms which were between 5-99.9 feddans occupied about 46 percent of the area and the remaining less than one one percent of the farms occupied about 35 percent of the area.

Besides the very small size of the Egyptian farms, almost all of them have another characteristic which concerns the farm layout. Owing to many reasons, of which inheritance customs is one, most of the farms are made up of numerous tracts, sometimes of very impractical size and sometimes at great distance from each other and from the farmer's house. This situation involves the following troubles:

(1.) Farming practices such as moving manure to the fields and other similar things usually take more than due time.

(2.) Irrigating ditches and drains usually take a considerable part of the farm land. This fragmentation and dimuta-

tion of farm areas constitutes a serious obstacle to the progress of drainage works in Egypt.

(3.) A great deal of energy is lost in the unavoidable farm boundary disputes.

(4.) Many roads are required to give every farmer access to his various strips which are spread over the village grounds.

Many writers are inclined to blame the Moslem law of inheritance for this tendency towards subdivision and fragmentation. This is not the determining factor, however, because the law does not prohibit anyone of the heirs from buying the whole farm so long as the price is distributed between the heirs according to the regulations of the law. There are three main causes for continued fragmentation and subdivision of farms. They are:

(1.) The culture of the people, which overestimates the value of land ownership to the extent that the farmer desires to acquire any piece of land even if it is very small and even if he puts himself into life-long debt.

(2.) The lack of an efficient farm credit system, which would provide some heirs with the funds needed for payment of the other heirs' share in cash.

(3.) The shortage of cash which most of the heirs experience and which makes them unable to buy the share of the others.

These three factors have worked side by side in bringing about the present landownership situation in Egypt. The efficient solution would be to tackle them all at the same time.

As to who owns the land in Egypt the census book of 1945 gives the figures *

	Area in Fed.	% of total
1. Total land in private ownership	5,259,580	63.0
Land owned by Nationals	4,867,681	
Land owned by Foreigners	381,899	
2. Wakfs	665,965	8.0
Wakfs managed by Ministry of Wakfs	149,945	
Wakfs managed by individuals	516,020	
3. Land owned by the Government	1,505,302	29.0
4. Land for Public Utilities	915,898	
Grand Total	8,336,745 7/	100.0

Thus 63 percent of the total cultivable area was in the hands of private owners, 8 percent was Wakfs, and 29 percent was in the hands of the government. Out of the 29 percent which were in the hands of the government 11 percent was reserved for public utilities and a small part of this reserved land was temporarily leased for cultivation. Most of the governmental land is administered by the Bureau of Public Domain and it is mostly uncultivated land which is now being reclaimed. 8/

Land is owned privately either by individuals or corporations. However, the part owned by corporations is very small and consists of either newly reclaimed land which will be sold to the individuals, or lands taken from individuals by foreclosure and held temporarily until it can be sold again to indiv-

* Annuaire Statistique, op.cit. p. 289.
7/ This figure includes iroded and free of tax land.
8/ In 1945 uncultivated land under the administration of this Bureau was about one million feddans.

iduals. Corporate farming is not common in Egypt.

Although the Wakfs occupied only 8 percent of the cultivable land, they occupied more than 10 percent of the land under cultivation. Wakf land is inalienable and there are two kinds of Wakfs.

(1.) Land dedicated to some religious or philanthropic purpose. This is known as Wakf Khairi and occupies around 100,000 feddans.

(2.) Lands which are entailed in favor of heirs in perpetuity. Wakfs occupied more than 500,000 feddans of this kind of land.

This system of land tenure gives rise to many evils and calls for urgent reform.

Characteristics of individual owners are not given any attention in the census takings thus far available. Figures concerning the exact number of owners operators, part owner operators and absentee landowners are not available. Other characteristics, such as the sex of owners, the age of owners and the occupational status of owners also are not known.

It is a common practice in Egypt for wealthy professional employed persons to invest their accumulated capital in land. Many of the medium size farms belong to this group and are usually rented out. Many of the old retired government officials, instead of receiving their pensions, got a piece of government land. These owners, having no experience in farming, usually live in large cities and either rent their farms or hire a manager. How much background for farming the

the owners had when they became owners is not known. The same situation applies to their tenure experience. There is nothing in the available data that shows how long the owner spent on the different rungs of the agricultural ladder.

Data regarding the relationship between the amount of rent collected and the landlord's other earnings or income also are unavailable. These statistical shortcomings are realized by all who try to study the land tenure problem in Egypt, particularly the Fellah Department of Ministry of Social Affairs which has suggested numerous refinements in land tenure data to the Bureau of Census. It is hoped that all or at least most of these shortcomings will have been taken care of in the tabulations on general census of 1947 which are not as yet available.

Most Egyptian farms are acquired through purchase, inheritance, or combination of these two methods. It is impossible with the data on hand, to disern the proportions acquired through each of these methods. But inheritance is the most important method of acquisition. Except in areas of newly reclaimed land, purchase is no frequent. The reason may by the very high prices charged per acre, coupled with the social prestige put on landownership which makes the people keen to preserve their land and pass it from father to son.

As to the different tenure groups in Egypt, as in all the other countries which sanction the right of private ownership in land, there are three basic tenure groups, namely; landowners, tenants and laborers.

In 1937, the last year for which census data are available, the number of the different tenure groups was as follows.*

1. Farmers operating their own farms	959,975
2. Farmers operating rented farms	210,385
3. Family laborers	1,226,887 9/
4. Wage laborers	1,457,267

These figures are thought by many of the Egyptian authorities to be unreliable and do not give a true picture about the situation. Many of the owners who owned a very small piece of land and who at the same time rented another piece, were probably classified as owners, a practice which deflated the number of renters.

According to the figures, the group of landless agricultural laborers not only outnumbered any other group, but also outnumbered the owner operators and the renters combined. Besides, they increased very rapidly from 659,883 in 1927 to 1,457,267 in 1937, an increase of about 121 percent, while the number of owner operators and renters increased from 963,233 in 1927 to 1,170,360 in 1937, an increase of only 21 percent. This continuous increase in the number of landless laborers presents a most serious problem in the Egyptian economy.

The recent, but yet unpublished investigations of the Egyptian Ministry of Agriculture show that tenancy is becoming

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*Annuaire Statistique de Poche, op.cit. p. 10

9/ Not including the females whose number was 170,362.

more extensive in the country. In 1948, out of the total of 5,942,978 feddans,under cultivation, tenants operated 3,500,383 feddans or almost 59 percent. No other recent figures concerning the number of tenants, kinds of tenancy, and the size of farms operated by the tenants are available.

2. The Agricultural Ladder and the Acquisition of Land

The concept of agricultural ladder, despite its limitations, provides a useful tool for analysis in studying the farm ownership process.[10/] It involves a number of separate steps or rungs on which one advances from the bottom to the top as he gains experience and accumulates funds to become a farm owner. While it is usually agreed upon that in the United States there are four fundamental rungs which are characterized by the letters P (for unpaid family labor) - H (for hired hand) - R (for renter) and O (for owner), in Egypt there are only three main rungs. Those can be characterized by H (for hired laborer) - T (for tenant) and O (for owner). Unpaid family laborers do not constitute a distinguished group in Egypt since they do not differ much from hired laborers and they derive most of their income from working on other big farms. They are rather considered as a subgroup of hired laborers.

Those three main groups which stand on the different

10/ See J.F. Timmons & R. Barlowe, Farm Ownership in the Midwest. Research Bulletin 361. June 1949, A.E.S. Iowa State College, Ames, Iowa. p. 892-93.

rungs of the ladder may be further divided into subgroups. Under the first one, which represents the owner, come the following subgroups:

(1.) Owners of a whole debt-free farm.
(2.) Owners of part of a debt-free farm.
(3.) Owners of a whole mortgaged farm.
(4.) Owners of part of a mortgaged farm. 11/
(5.) Owners of a small debt-free farm who rent in some land at the same time.
(6.) Owners of small mortgaged farm who rent in some land at the same time.

Under the tenant group comes the following subgroups:

(1.) Cash renters.
(2.) Cash and share renters.
(3.) Share renters who pay to the owner a fixed amount of the product.
(4.) Share renters who pay to the owner a percentage of the product.

And under the hired laborers group come the following subgroups:

(1.) Tamallia
(2.) Family laborers
(3.) Hired laborers
(4.) Migratory laborers

Subject to the known limitations of the concept of the ladder, this classification of groups and subgroups implies the gradation of financial standings as well as independence of control. Thus at the very bottom of the ladder lies the migratory group which represents the most depressed and underprivileged group in the country, while at the top stands the group of the owners of debt-free farms who are usually in a good fin-

11/ These are joint owners.

rungs of the ladder may be further divided into subgroups. Under the first one, which represents the owner, come the following subgroups:

(1.) Owners of a whole debt-free farm.
(2.) Owners of part of a debt-free farm.
(3.) Owners of a whole mortgaged farm.
(4.) Owners of part of a mortgaged farm. 11/
(5.) Owners of a small debt-free farm who rent in some land at the same time.
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11/ These are joint owners.

ancial position and who are completely independent so far as control is concerned. Some of the characteristics of these groups and subgroups will be discussed more in detail later.

Data concerning the age distribution of Egyptian farmers on the various tenure rungs and their tenure experiences are not available so it is impossible to tackle the subject from these angles. The subject can be approached, however, from another angle which concerns the acquisition of land. The concept of the agricultural ladder implies that the farmer in climbing the ladder from the lower rungs to the upper one spends some time on each rung to accumulate the funds needed to put him on a higher step. The length of the period spent on one rung differs from one country to another and depends on many factors. In the countries where there is a shortage of farm labor and little population pressure on land, wages are usually higher while land prices are lower than in the countries with a surplus of agricultural laborers and population pressure. Climbing the ladder is not as difficult a task in the former countries as in the latter ones.

Now, what is the situation in Egypt? In answering this question some facts have to be kept in mind. These are:

(1.) Egypt is predominantly an agricultural country in which other economic activities, industrial and commercial, do not offer a good alternative source of employment. Seventy-five percent of the 20 million people living in the country rely

on agriculture for their livelihood.[12/]

(2.) Egypt has a high man-land ratio, about 3 persons per feddan and agriculture is overloaded. Many investigators believe that fifty percent of the agricultural labor force could be considered as surplus labor.

(3.) The supply of land in Egypt is highly inelastic while the population continues to increase rapidly.

(4.) There is a maldistribution of land in Egypt to the extent that 94 percent of the land owners hold only 54 percent of the land while 0.25 percent of the owners hold 28 percent of the land.

With these facts in mind, it is easy to see why agricultural wages in Egypt are very low, rents per acre are very high and land prices also are very high. This situation makes it very difficult for a laborer to climb not only to the top of the ladder but to any higher rung. The time that an Egyptian agricultural laborer has to wait until he accumulates the funds needed to buy even one feddan is almost infinite. Perhaps a comparison between the prices of the agricultural land and the wages of the agricultural laborers in Egypt and in the United States will show the wide difference between the two countries in the opportunities of the agricultural laborers to become land owners.

In 1945 the average per acre value of farm land in the

12/ See chapter 2 of this work.

United States was $40.63,[13] while the average farm wage per day without board in April 1, 1945 was $4.12.[14] This means that in 1945 it took the farm laborer in the United States the wage of less than 10 days to buy one acre. Owing to wide geographic variations, farm wages and agricultural land values varied from state to state. The situation was as follows:

State	Average value per acre (1945) dollars	Wage per day without board in dollars (April 1, 1945)
Iowa	$104.81	$5.75
Montana	8.81	6.50
Mississippi	33.01	2.65
Washington	53.84	7.70

Thus in Iowa, the state with the highest share of the first grade land in the United States, it took the agricultural laborer the wage of about 18 days to buy one acre of land, in Montana it took him the wage of less than two days, in Mississippi it took him the wage of about 13 days, and in Washington it took him the wage of seven days.

In Egypt the picture is far different. According to the investigation of the Fellah Department the average wage of agricultural laborers in 1945 was 9 piastres while the average value of one feddan was 300 Egyptian pounds. This means that it took the agricultural laborer in that year the wage of

13/ See United States Department of Commerce, Statistical Abstract of the United States 1948 p.597.
14/ See Bureau of Agriculture Economics of United States Department of Agriculture. Farm Labor. April 1945.

3333.3 days, or about ten years, to buy one feddan. Knowing that the days of employment available for the agricultural laborer in Egypt is only 180 days per year, it could be seen that it would take 20 years for him to buy one feddan even if he could save his entire wages for this purpose, which, of course, is an impossible assumption. In 1939 which is a normal year, the situation was worse. The average wage was only three piastres while the average price of land was 150 Egyptian pounds per feddan. This means that on the same assumptions the agricultural laborer would have to wait about 27 years before he could buy one feddan.

The tenant's opportunity to climb the agricultural ladder to ownership is hardly any brighter than the laborer's. As mentioned earlier, rents in Egypt are very high. According to the investigations of the Fellah Department, the average rent per acre was as follows:

1938-39	L.E. 7.10
1942-43	15.00
1943-44	18.00
1944-45	19.00
1945-47	22.00
1947-48	24.00

Available data concerning the per acre gross income, the cost of production, and the net income are crude and unreliable since no records are kept by small farmers. Addressing the third Agricultural Conference held in Cairo March 29, 1949, H.E. Dr. Ahmed, Hussien Bey, Under Secretary of State to the Ministry of Social Affairs and the former director of the

Fellah Department, stated that the investigations of that department revealed that after deducting the tenant's wages, the wages of his family and the other production costs from his gross output, he is left with a net output which is less than the rent he has to pay. Dr. Hussien stated also that studies of the big estates where records are kept and some of the land is owner operated while lands are rented show that the rents charged are higher than the net output obtained from the land operated by the owner. This is the reason why some of the capable landowners, who reside in villages, sometimes prefer to rent their land to small farmers instead of operating them.

This shows that the tenants in Egypt are having no better luck than the agricultural laborers. Instead of making something out of the land they rent which might help them in climbing the agricultural ladder to the rung of ownership, they squeeze themselves and live miserable lives while paying high rents to the landowners.

As far as the movement of prices of agricultural land, rents and wages of the agricultural laborers is concerned, it is well known to all who studied the subject that the price trend since the beginning of this century has been and still is on the upward side. This is a natural thing which happens in all the predominantly agricultural countries with an inelastic supply of land and a rapidly growing population. However,

accurate and reliable figures which could be used in this analysis are not available.

As to rents the situation is little better since some figures are available. A cadastral survey of the country was made in three different periods during this century. The first one was conducted for the period 1892-1907 and gave a total rental value of the agricultural land of the country at that time of 16,356,000 Egyptian pounds or 3.595 Egyptian pounds per feddan.[15] The second was that conducted for the period 1935-38 which gave a total rental value of 34,420,000 Egyptian pounds. Although the total rental value for the agricultural land of the country was more than doubled, the per feddan rental value was increased only from 3.595 Egyptian pounds in the first period to 6.457 Egyptian pounds in the second one, because the area under cultivation was larger in the second period than in the first one. The third survey was for the period 1946-48 and gave a total rental value for the 5,963,000 feddans under cultivation, at the time, of 109,934,273 Egyptian pounds or 18.430 Egyptian pounds per feddan.[16]

Aside from these cadastral estimates of the rental values the investigations of the Fellah Department show that the movement of the actual average rent per acre in some of the

15/ Issawi, Chas. Egypt, an Economic and Social Analysis op.cit. p.76.

16/ Figures taken from the paper presented to the third agricultural conference held in Cairo, March 29, 1949 by H.E. Dr. Ahmen Hussien Bey, Under Secretary of State for the Egyptian Ministry of Social Affairs.

recent years was as follows:

Year	1928	1932	38/39	42/43	43/44	44/45	46/47	47/48
Rent (L.E. per feddan)	10.00	5.00	7.10	15.00	18.00	19.00	22.00	24.00

Although rents are affected by the business cycle and although the sharp increase which took place in this present decade is attributable to the second World War conditions, it could be easily seen that the trend is upward. For instance, the average rent in 1932, which was a slump year, was higher than that estimated for the period of 1892-1907. On the other hand, taking 1938-39 as a base, the Fellah department found that the index number of agricultural income from the main crops rose to 228 in 1944-45 while that of rents rose to 267.6 which means that tenants did not profit by the boom.[17/]

As to the movement of the wages of the agricultural laborers, figures concerning the average money daily wage for the man agricultural worker, the cost of living index and the adjusted wages to the cost of living index were as follows:

Year	1913	1929	1934	1939	42/43	44/45
Wage (piastre per day)	4.00	5.00	2.5	3.00	6.00	9.00
Cost of living index	100	151	125	131	273	370
Adjusted wage	4.00	3.3	2.0	2.2	2.2	2.4

Thus although the average money w age seemed to be in-

17/ Note on questions relating to agriculture in Egypt, presented by the Fellah Department to the International Labor Organization. Mission of the United Nations in 1946.

18/ Calculated by the author from figures taken from different sources.

creasing since the beginning of this century up until the present time, except for the period of the great depression and the years following it, until 1940, the adjusted wages had declined from four piasters in 1913 to reach two in 1934 and then slightly increased to 2.4 in 1944-45 which is still far below the wages of 1913 or those of 1929. The reason for that is the ever increasing supply of agricultural laborers in the country which compels that group to accept without resistance the low wages offered them by the landowners. The previous analysis adds to better understanding of the working of the agricultural ladder in Egypt and the possibility of acquiring agricultural land by agricultural laborers or tenants.

One more point which has a bearing on the subject has to be discussed before closing this part on the agricultural ladder. It is that of farm credit. The nature of the credit facilities available to the farmers of any given country and the use made of these facilities has a definite effect upon the conditions of land tenure in that country. In many instances, the use of credit facilities is one important factor that determines whether or not a farmer will be able to climb the agricultural ladder. If unable to accumulate the funds needed to ascend the ladder, the laborer, or the tenant, may resort to credit agencies to borrow the needed funds, if he can find the agency that is willing to lend him the proper amount at the proper time and at a reasonable cost.

In Egypt no governmental agency offers the agricultural laborers any kind of credit. In order to get credit, one should have some real estate, or crop to be mortgaged as a security. The agricultural laborer usually has none. Tenants can get production loans from the Agricultural Credit Bank, but only after considerable red tape which makes farmers prefer to borrow from merchants and money lenders at a very high interest rates rather than go to one of the branches of the bank. There are no tenant-purchase loans, like those offered by the Farmers Home Administration of the United States Department of Agricultural, which are designed for the purpose of making owners out of farm tenants and other eligible laborers. This is a type of loan badly needed in a country like Egypt.

Thus it could be concluded that the farm credit facilities available in Egypt do not help either the agricultural laborers, or the tenants in climbing the agricultural ladder.

From the aforementioned facts it may be concluded that climbing the agricultural ladder is a very difficult, if not impossible job for the agricultural laborers and tenants in Egypt. Only those large membered families who get land at somewhat low rent because they are feared by some of the inexperienced absentee landowners, and those numerous intermediaries who frequently appear on the stage between the landowners and the small tenants can accumulate the funds which enable them to become landowners, Aside from that, acquisition

of land is possible only to those who make fortunes in some other field, such as the professions, and to those who inherit it.

3. Costs, Returns and Efficiency on Different Sizes of Farms

It was mentioned before that one of the characteristics of the Egyptian farms is their smallness in size. Although the average size of farm was around six feddans in 1947, actually 81 percent of the farms covered less than five feddans. Those which were between five and fifty feddans accounted for about 18 percent of the total and those which were more than fifty feddans about one percent. The number of feddans, however, by itself, is not an adequate measure of the economic size of any farm, and it should be related to other factors which have a bearing on the matter such as the degree of intensity in applying labor and capital and the extent of mechanization used in farming.[19] Considering as a medium sized farm the family farm which is big enough to offer employment for the labor force of an average Egyptian rural family which consists of six persons,[20] and the income of which would be adequate to maintain an acceptable level of living for the family, actual observations support the idea of classifying, under the present state of technology, all the farms of less than five feddans as small farms, those of five to fifty feddans as medium size farms and those of more than fifty feddans as large size farms.

19/ For additional information about the matter, see J.D. Black, Introduction to Production Economics. Henry Holt and Co. N. Y. 1926. Chapter 21.

20/ See Cleland, W.W. A Population Plan for Egypt. The Milbank Memorial Fund Quarterly. Vol 22 Oct. 1944 p. 412.

This classification will be used in discussing the matter of costs, returns and efficiency on the different sizes of Egyptian farms. The number of farms under each group will be given, together with the total area in feddans occupied by each group and from that the average size farm for each of the three groups would be obtained. The per acre gross output, and the per acre imput, when available, will be given also. Then efficiency of production on the different sizes will be measured by the ratio of the per feddan gross output to the per feddan imput. Measures of efficiency, however, are not universal. Some countries emphasize the return to the man-hour, others rather emphasize the yields per acre, and still others use different measures. In our case, the fact that in Egypt land is a more determining factor than labor, coupled with the available data at hand, compels us to confine the analysis to the per feddan costs, and returns on which some figures, although not all the needed ones, are available.

In a bulletin released by the Egyptian Ministry of Agriculture in 1949,[21] the contributions of the different groups of different sizes of farms to the national gross agricultural production, as well as the number of farms of each size and the areas those farms occupied for the year 1946-47, were given. Those figures helped in classifying the farms into small, medium and large and calculating the average size of farm for the three

21/ Ministry of Agriculture. Agricultural and Economic Statistics op.cit. p. 33.

groups and the per feddan gross output for each of the three sizes. The situation was as follows:

Size (fed.)	No. of Farms	% of t'tl	Total Acreage (fed.)	% of Total	Av.Size of farm	Total output (L.E.)	% of Total	Av.Fed. output (L.E.)
0 -5	806,120	81	1,128,566	18.69	1.4	40,212,726	17.62	35.4
5-50	178,368	18	2,207,881	36.57	12.4	88,117,347	38.61	39.9
Over 50	15,575	1	2,700,432	44.74	173.4	99,872,043	43.77	36.9
Total	1,000,063	100	6,036,879	100.00	6.0	228,202,116	100.0	37.8

It could be seen that in 1947 about 81 percent of the Egyptian farms were of the small size with an average of 1.4 feddan and an average gross output of 35.4 Egyptian pounds, 18 percent of the farms were of the medium size (5-50 feddans) with an average size of 12.4 feddans and an average gross output of 39.9 pounds and one percent of the farms was of the large size (over 50 feddans) with an average size of 173.4 feddans and an average gross output of 36.9 pounds. The group of medium size farms had the highest average output, followed by the large size group and then the small size one. Thus as far as the gross output is concerned the medium size group is favored. It might be interesting to mention that the medium size group, when broken into the following three groups (1.) from 5-10 feddans (2.) from 10-20 feddand and (3.) from 20-50 feddans, the group of 5-10 feddans had the highest average per acre output. Figures pertaining to this group were as follows:

No. of Farms	Percent of total	Total area feddans	Av. Size of Farm	Total Gr. Output	Av. per Fed. Output
100,142	10%	684,853	6.8	28,367,808	41.4

Thus in 1947 about 10 percent of the Egyptian farms were from 5-10 feddans with an average size of 6.8 feddans and an average gross output of 41.4 Egyptian pounds per feddan. As far as productivity is concerned this group was the most productive.

To measure efficiency, though, figures concerning the cost of production per acre for the different groups are needed. Unfortunately, such figures are not available for 1947 and as a result we are obliged to go back to the year 1937 for which some figures about the cost per acre, as well as the output per acre, are available.

A survey covering 20,532 feddans, or 0.4 percent of the total area of Egypt, including every province, was carried out in 1938 with a view of determining the gross agricultural output and net return of the different parts of the country.[22/] The results obtained throw some light on the relative level of costs and returns on the farms of different sizes. In conducting the survey, farms were classified into three groups. The first group was that of farms containing about five feddans, the second was that of farms approximately fifty feddans and the third was of farms about 300 feddans in size. Table 19 gives the costs and returns on the different sizes of farms on a regional basis in Egypt in 1937.

22/ Issawi, Chas. Egypt, an Economic and Social Analysis, op.cit. p. 47.

Table 19. - Costs and Returns on Different Farms in Egypt, 1937 *

Size of farm in feddans	Costs (L.E. per feddan)	Gross output (L.E. per feddan)	Net Return (L.E. per Fed. Before tax payment
1. Delta Area			
about 5 fed.	5.204	14.414	9.210
" 50 "	5.827	14.366	8.539
" 300 "	6.914	14.012	7.098
2. Upper Egypt (perennial)			
About 5 fed.	7.488	19.353	11.865
" 50 "	7.447	16.047	8.600
" 300 "	7.778	17.466	9.688
3. Upper Egypt (Basin)			
About 5 fed.	6.783	13.101	6.318
" 50 "	7.053	12.606	5.553
" 300 "	8.074	12.461	4.387

* Source: Issawi, Chas. Egypt, an Economic and Social Analysis. op.cit. p. 78.

Gross returnns were highest on the first group, the under 5 feddan group. Costs were lowest also on the same group and the result was that this group has the highest net returnns. In the Delta area for each Egyptian pound of costs per feddan the farmer got about 2.8 pounds of gross output per feddan on the farms of about 5 feddans, about 2.4 pounds of gross output per feddan on the farms of about fifty feddans, and about t wo pounds of gross output per acre on the farms of about 300 feddans. In the area under perennial irrigation in Upper Egypt,

for each pound of costs per feddan, the farmer got about 2.6 pounds of gross output per acre on the farms of the first group, about 2.1 pounds on the farms of the second group and about 2.2 pounds on the farms of the third group. Figures concerning the part under Basin irrigation in Upper Egypt were about two pounds of gross output per acre for every pound of costs expended on the first group of farms, about 1.8 pounds on the second group, and about 1.5 pounds on the third group.

From the figures released by the Ministry of Agriculture, it was found that the group of farms which were between 5-10 feddans with an average of about 6.8 feddans was the most productive group, giving an annual gross output of 41.4 Egyptian pounds per feddan. And again the survey of 1938 indicated that the group of farms which were about five feddans were the most productive and at the same time, the most efficient. This result is of great importance since it means that breaking up of large estates, and the elimination of the very small size farms (under five feddans) may actually lead to an increase in the total productivity and the national agricultural output.

4. Effect of the System on Land Use and on the National Agricultural Product.

The type of farm business chosen by any farm operator depends on the interplay of many factors. Outstanding among these factors are the following:

(1.) Soil and climatic conditions.
(2.) Labor needs.
(3.) Marketing facilities.
(4.) Size of the farm.
(5.) Capital needs.
(6.) The conditions under which the operator holds the land.

The last three factors which are closely related to the land tenure system are the most determining as far as land use in Egypt is concerned.

As has been pointed out, more than four-fifths of the farms in Egypt are very small, their average size being only 1.4 feddans.[25] These so-called farms, which account for only 18 percent of the total area under cultivation, are primarily self-sufficient units on which the principles of farm management generally are ignored. The owners of these small tracts are not guided in their use of land by prices and profitability, since their main objective is to produce what they need for their families.

Crop statistics indicate that a large part of the productive area in Egypt is used for producing crops used by the family and do not enter commercial channels. The following figures show the percentage of the total crop area in Egypt used in the production of the four leading crops in two different years.[24]

Crop	1938	1947
Corn and Millet	23%	24%
Barseem	21%	22%
Cotton	21%	14%
Wheat	17%	18%

23/ See Table 18.
24/ Computed by the author from figures taken from different sources.

Corn and millet are the leading crops produced and usually occupy about one-fourth of the total crop area of the country. These crops are the backbone of the farmer's diet. Millet is produced mostly in Upper Egypt because of its high yields there and because the people of that part of the country like it more than the people of the Delta, where corn is much preferred. It should be emphasized that corn is raised in Egypt primarily for human consumption and not for the purpose of feeding livestock as in the United States.

Figures concerning the production of barseem, the second leading crop, also support the idea that a large part of the crop area in Egypt is used for self-supporting purposes. Barseem "the Egyptian clover" usually occupies more than one-fifth of the crop area. It forms the main green fodder in winter and when dried provides summer fodder "hay". Practically every farmer raises barseem to feed his livestock, consisting mostly of working animals. Very few produce barseem to raise livestock for fattening or milking purposes. Thus a good forty-five percent of the crop area is worked for home use; production of corn and millet to feed the human being and production of barseem to feed their working animals. Owners of small parcels of land are in most cases unable to produce any other crops. Therefore the first effect of the land tenure system on land use is that a sizable area is devoted to the production of farm consumed products in the growing of which

the farmer is not guided by economic factors.

The great majority of owners of small farms are usually short of the capital they could use to increase the size of their business. Size of business could be increased by growing crops requiring more labor, that is, by following a more intensive form of farming. Although many writers believe that farming in Egypt is intensive, yet there is no doubt that it is not as intensive as in some other countries, such as Denmark or the Netherlands. There are many agricultural products, such as truck, fruit, poultry, dairy and meat products, in the growing of which Egypt has a comparative advantage because of its soil fertility and climatic characteristics. They are not grown in large quantities, however, because of their inadaptability to the existing land tenure system. Intensive farming, that could employ some of the surplus agricultural labor of the country, needs capital. But more than eighty percent of the Egyptian farmers are usually short on capital. Thus the second effect of the land tenure system on land use is that it hinders the use of intensive farming needed to take care of the problem of the surplus agricultural laborers and also hinders the production of some crops that could be produced with advantage while the country's needs of these products are filled through importation.[25/]

Although not more than 1.5 percent of the Egyptian farms are larger in size than fifty feddans, yet this 1.5 percent

25/ See Appendix Table 18 for the kinds and amounts of imports of agricultural products.

occupies about 45 percent of the area under cultivation. Many of the owners in this group are absentee landlords who do not operate their land themselves. Some recent figures indicate that tenancy is becom ng more extensive in Egypt,[26] and tenancy has something to do with land use. It is nearly always associated with the production of cash crops. Cotton is usually the third leading crop as far as the area is concerned, except when its production is restricted by the government. It is a commercial crop that constitutes the basis of Egypt's income, but as a rule is produced only on larger farms. Its popularity hinges mostly on the fact that it is not consumable by the farmers and thus admirably suits absentee landowners. It may be a good remunerative crop, but still there are many other more remunerative crops which are not produced because they do not suit absentee landowners, or because their production requires more working capital than the average farmer has. Marketing facilities and storage adaptability have something to do with the production of cotton.

Wheat is the fourth leading crop in spite of its comparative disadvantage as far as Egypt is concerned. Egypt can get wheat cheaper from the major wheat producing countries, but the landowners faced with the falling prices of cotton, tried to recoup their losses by securing higher prices for their wheat. They did this by getting the government to impose a prohibitive tariff on wheat in 1930 and to subsidize wheat exports

26/ See the part on tenancy which will come later in this Chapter.

in 1937 and 1939. The result of these measures was to raise the price of wheat to more than double that of imported grain.[27] The poor urban people were the ones who suffered.

Wheat is a crop which suits absentee landowners for the following reasons:

(1.) Small farmers usually eat cornbread and not wheat bread. Thus the whole wheat crop can be sold and the funds used in paying rents.

(2.) Wheat is a crop adaptable to marketing facilities existing in Egypt.

(3.) It is a fast growing crop and occupies the land for only six months, therefore it suits the year to year leasing procedure and even the one crop lease method which is frequently used in Egypt. This is an important point affecting land use since under such leasing procedures, many of the crops that could be produced advantageously in Egypt are not produced on rented land because they require long periods of occupancy. Thus the third effect of the land tenure system on land use in Egypt is that it leads to the unsound economic practice of growing crops, in the production of which the country has a comparative disadvantage, while preventing the production of other crops that could be produced with advantage.

The main reason why the production of fruits, meat, dairy products and poultry is still backward in Egypt, which can be one of the suppliers of the European markets with some

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27/ Issawi, Chas. op.cit. p. 69.

of these products, is the limitations imposed by the land tenure system. Without reforming the system there is little hope for the advancement of either agriculture or industry.

This land tenure system affects the national agricultural product in two different ways, namely: the kind of crops produced and the efficiency of production.

As to the kinds of crops raised it has been indicated that the system imposes some particular crops which suit either (1.) the owners of small parcels of land who are guided in their selection of crops by self-supporting motives rather than sound economic and farm management practices, or (2.) the absentee landowners who are interested primarily in nonconsumable cash crops. The value of the national agricultural output, and the incomes of the people could be increased through a shift in crop production in accordance with the principle of comparative advantage. But the restrictions imposed by the land tenure system do not permit such shifts in Egypt. The result is that the national product is not maximized.

The second way in which the system affects the national product concerns the efficiency of production on the different sizes of farms. So far as costs, return and efficiency on different sizes of farms are concerned data show that the group of medium sized farms had the highest gross and net output of production.[28] The number of farms in this group is very small when compared with the number of farms in other groups. By

28/

increasing the number of medium sized farms, eliminating the very small farms and breaking up large estates, the national agricultural output could be increased.

C. - Some Results of the Situation

As has been indicated, the almost fixed supply of agricultural land in Egypt is mostly concentrated in sizable land-holdings held by a small group of owners. About 75 percent of the total population are either owners of very small pieces of land or landless agricultural laborers. The lack of any extensive industrial and commercial activities, which can offer employment to a considerable number of the country's labor force makes agriculture overpopulated. Thus the natural result of such a situation is the existence of a large number of agricultural laborers who offer their services for very low wages, the existence of a large number of tenants who accept the very high rents asked by the landowners, and finally a very low standard of living for the majority of people.

In this section of the chapter, two points will be discussed, namely: the agricultural laborers, and the standard of living. The tenancy problem will be dealt with separately in the following section.

1. Agricultural Laborers

Agricultural laborers constitute a large group of the Egyptian farm population. Reference to their number has been made earlier in this chapter in connection with the agricultural ladder, however, the Egyptian delegates to the United Nations

Food Conference in Hot Springs, Virginia, U.S.A. gave the number of peasants working for wages in agriculture as 1,627,600 in 1939.[29] This figure is close to that of the 1937 census. It does not include the family labor that was estimated at 1,505,000 in the same year. Thus the total number of the agricultural workers (paid and unpaid) in 1939 accounts for more than seventy-percent of the total number of the people employed in agriculture. The following subgroups come under the farm laborers group:

(1.) Tamallia
(2.) Family laborers
(3.) Hired laborers
(4.) Tarhila or migratory laborers

Tamallia is the name of those permanently employed laborers who work on large estates. They have the highest status among the laborers and resemble tenants in a way. They are paid by the year and receive in payment a small parcel of land varying in size according to the fertility of the soil, the nature of the job assigned to them and the prevailing agricultural wages and prices of farm products. They usually live free of charge on the estate in dwellings given to them by the owner. Their housing conditions in most cases are superior to those of other farm laborers. The percentage of tamillia in the agricultural laborer force is small.

After the tamallia, come the family laborers. These are usually the sons, daughters and relatives of owners of small

29/ Reda, K. op.cit.

pieces of land. They usually help their relatives and at the same time work as hired laborers. The only difference between them and the hired laborers is that they are related to someone who owns a piece of land, but the conditions under which they work, and their level of living, are identical with those of the hired laborers, and no distinction between them need be made in this analysis.

Agricultural laborers, other than the tamallia, are commonly employed by the day and their wages very according to seasons and demand. Reference has been made earlier to their average daily wages and to the average number of days they usually work per year. In some cases piece work is followed and it yields more income to the worker than the normal daily wage. Such cases, however, are confined to operations such as dredging, rice gathering, and sugar-cane breaking. Wages are normally paid in cash. In certain cases, especially in the gathering of grain crops, they are paid in kind according to rates conventionally agreed upon. But there is a trend toward cash payments. The laborers usually live in their own dwellings in the villages and they are recruited directly by owners of small and medium size farms. Owners of large farms, however, usually recruit their workers through the intermediary of a contractor who gets a certain fee from every worker or a commission from the landowner. In the latter case, the wage paid the worker is usually a little lower than when the laborer is hired directly by the owner.

At the bottom is found the subgroup of tarhila or migratory laborers. They are seasonal agricultural laborers who journey from one region to another in search of work. They are the most poverty-stricken of all the worker groups. Usually they are recruited by contractors from congested areas in periods of seasonal demand, and stay for a period of one or two months in one region living in tents or in the open air under living conditions next to those of animals. There exists no legislation regulating the work or housing of this subgroup.

The work day for laborers usually extends from morning to nearly sunset with an interval of rest at noon. No legislation exists providing for paid holidays, hours of work or rates of compensation for agricultural laborers. All labor laws so far passed exclude agricultural laborers from their scope. In some parts of the country tradition and custom keeps women from working in the fields. Children of seven years and over undertake light agricultural work since there is no law that regulates the work of children in agriculture.

2. The Standard of Living

In spite of the high productivity per acre in Egypt, the income per head is very low, probably the lowest of any country with advanced agricultural methods. According to the Ministry of Agriculture, the gross agricultural output in 1947, a prosperous year, was 228,202,116 Egyptian pounds. The culti-

vated area was 6,036,879 feddans and the average gross output per feddan was 37.8 Egyptian pounds. If the gross output from agriculture had been equally distributed among the 14 million persons in the farm population it would have given each person a gross income of sixteen Egyptian pounds or about 96 Egyptiam pounds per family.

According to the investigations of the Fellah Department, approximately 120 Egyptian pounds was needed to give a laborer's family, consisting of six, the necessities of life. This even if the land were equally distributed among the farm people, the gross income would have permitted only a very low level of living. However, the distribution of the landownership is extremely unequal. According to the available data 71 percent of landowners owned less that one feddan[30] and thus had annual gross incomes of less than 37.8 Egyptian pounds; 84 percent of the owners had less than two feddans which means an annual gross income of less than 75.6 Egyptian pounds, and 94 percent of the owners had less than five feddans which means an annual gross income of less than 189 Egyptian pounds. Less than six percent of the landowners had an annual gross output of between 198 - 35,800 Egyptian pounds and only 235 of the 2,605,917 landowners had an annual gross output of more than 35,800 Egyptian pounds each. This shows the extreme inequality of income distribution that exists in Egypt where more than 84 percent of all landowners had less than the necessities of life. As Doreen Warriner[31] said: "This is no standard of living.

30/ See part B of this chapter

31/ Warriner, D. Land and Poverty in the Middle East. Royal Institute of International Affairs. London, 1948. p. 38.

Anything lower would be death."

Bad as the condition of the landowners was, the condition of the agricultural laborers and tenants was worse. Even the war, which brought some improvement in the incomes of the cultivators in other Middle Eastern countries, worsened the position of the lower farm classes in Egypt. Housing conditions, health services, nutrition and education facilities are almost as bad as they can be. Without a continued further expansion of Egyptian industry and a reform of the land tenure system, it is unlikely that the majority of the Egyptian farm people can look for any improvement in their levels of living.

D. - The Farm Tenancy Problem in Egypt

Owing to the close relation that exists between the well being of farm people and the conditions under which they hold their land, farm tenancy is among the most discussed topics of the day in nearly all the countries of the world. Tenancy is usually condemned by those who believe that the best and most profitable and stable type of land tenure is the owner-operator type, and considered by them to be one of the factors responsible for the existence of a group of underprivileged farm people in any country. But there are those who believe that many of the ills ordinarily attributed to tenancy are in reality the result of concentration of land ownership and not the mode of leasing lands.[32/] They further believe that tenancy of the right type

32/ See, Smith, T.L. The Sociology of Rural Life. Harper Brothers, New York, 1940. p. 290.

is a useful and important institution in many ways; but, like many other institutions, it has bad features as well as good, depending upon the conditions surrounding it.[33/]

It is not an objective of this work, though, to criticize or defend the thesis of either of these two schools of thought. But the tenancy problem as it exists in Egypt, its implications and its results will be discussed in this section of Chapter 3, while remedies to the tenancy problems, as well as to the other problems of land tenure in Egypt will be discussed in Chapter 4.

1. Conditions Contributing to Tenancy and the Tenancy Trend in Egypt

The existence of tenancy as a form of land tenure in Egypt is attributed to many factors, the important of which are the following:

(A.) Concentration and pacellation of land holdings

One of the most important factors, if not the most important, contributing to the existence and the spread of tenancy in Egypt is the concentration of the major land holdings in few hands while the majority of the farm people are either landless or owners of pieces of land too small to provide adequately for their subsistence. As has been pointed out 66 percent of the agricultural land is held by 6 percent of the owners. This concentration has its origin in the inequality of opportunity for getting land that prevailed during the Turkish rule and

33/ See, Renne, R.R. Land Economics, op.cit. p. 453.

which has continued to prevail with some modifications during more recent times. Many of the large land holders are either absentee land owners, who prefer to live in modernized cities, or owners of big estates who live on their farms but lease all or part of their estates to small farmers or to intermediaries. Parcellation of land holdings which is common in Egypt contributes also to the spread of tenancy.

(B.) Average size of Land Holdings and Average Size of Farm Families in Egypt

In 1945 the average size of land holdings in Egypt was 2.3 feddans, besides the fact that 94 percent of the land holdings were of less than five feddans with 71 percent of the total being less than one feddan. On the other hand, the average size of farm families was six persons. This average size of holding is too small to provide either for the subsistence of the family, or enough work to employ the families' labor force. As a result some of the families try to increase the size of their operating unit by renting some land while others work as hired hands on larger farms.

(C.) Lack of any Restriction on Land Ownership

By the close of the nineteenth century all the restrictions on land ownership were completely removed, and a keen race toward ownership took place. The government made no attempt to regulate land ownership or to limit the acreage that could be owned by one person. This situation helped the big land owners to obtain more land while the rest of the farmers were either unable to buy land or had to be content with the ownership

of the small holdings.

(D.) High Land Values

As has been pointed out, there is a tremendous demand for agricultural land in Egypt and land prices are very high. High agricultural product prices after World War I brought an inflation in land values. The high values have been supported also by noneconomic factors associated with the culture of the people. Land ownership was and still is over-valued in the minds of the people to the extent that land values are forced out of line with land productivity. This has limited the acquisition of large units to those few individuals who can pay the high prices. This has added to the concentration of land holdings in few hands and is the main cause of tenancy.

(E.) Lack of Efficient Farm Credit System

Farm credit of the right type could help tenants as well as farm laborers climb the agricultural ladder to the rung of ownership. There are many who could succeed as good farm owners if given the opportunity but remain as tenants or farm laborers because they are unable to obtain adequate credit from any source. Farm credit in Egypt was and still is inadequate to meet the needs of the landless farmers who would become owners. This inadequacy has helped to make land ownership inaccessible to the large number of the Egyptian farm people. Thus it has helped to increase the number of tenants and the number of farm laborers. The provision of adequate

farm real estate credit by some governmental agency will be discussed more in detail in the chapter on remedies.

(F.) The Wakf System

The Wakf system which was briefly referred to earlier in this chapter is one of the factors that has added to the growth of tenancy in Egypt. In 1945 about 665,905 feddans more than 10 percent of the area under cultivation in that year, were owned by Wakfs. Almost all these lands, whether entailed for charity, philanthropic, or individual families, are usually operated by tenants. Some of the lands entailed for the benefit of individual families were operated by the beneficiaries. But with the passing of time, the number of beneficiaries increase and it becomes practically impossible for all of them to operate the land. Thus the normal procedure is to rent the land to some other people and divide the rent between the beneficiaries. At the present time almost all of the Wakf lands are operated by tenants.

(G.) Lack of Industrialization

Finally, one of the factors that contributed to the growth of tenancy, as well as to the growth of the number of farm laborers in Egypt, is the lack of industrialization. Industrial and commercial activities do not absorb much of the increasing labor force of the country. As a result those who can not find a job elsewhere resort to farming. They enter farming as farm laborers or some times as tenants. This continuous increase in the number of the labor force not only contributes to the growth

of tenancy but also inflates rents and depresses the wages of the farm laborers. The result is a lower standard of living for the majority of the people of the country.

According to the Annuaire Statistique de Poche 1945, the number of tenants in Egypt was 238,356 in 1927 and decreased to 210,385 in 1937. Figures concerning the area operated by tenants, in both of the two mentioned census years, are not known. However, the agricultural census of 1939, gave the following figures concerning the area operated by tenants:

Kind of Rent	Area Operated (in feddans)	Percentage
1. Cash rent	635,233	66.00
2. Share rent	50,907	5.00
3. Other rents	281,202	29.00
4. Governmental lands rented	190,907	100.00
Total	1,158,249	

According to the unpublished figures available in the Bureau of Agricultural Economics of the Egyptian Ministry of Agriculture, the area of the lands rented in recent years was as follows:

	1946-47	1947-48
Area under cultivation	5,714,365 Fed.	5,942,978 Fed.
Area operated by owners	2,329,381 "	2,422,595 "
Area operated by tenants	3,384,984 "	3,500,383 "

If these figures are considered reliable, they show a marked increase in the area operated by tenants in recent years. The area reported rented in 1946-47 is almost three times that reported for 1939. Also, the figures for 1947-48 were higher than those of the year before. This indicates that tenancy in

Egypt is becoming more extensive.

2. Some Economic Implications of Tenancy in Egypt

(A.) Tenancy and Efficiency of Production

Tenure characteristics affect the efficiency of farm production in two principle ways:

(1.) The optimum intensity of production organization for the farm varies according to the conditions under which people hold their lands. Efficiency of production depends on the organization of durable and non-durable imputs, the control of which differs according to the tenure system. The owner-operator who has full equity in the land, complete managerial control over it, and is the sole recipient of the profit, is usually in the best situation to proportion the different imputs in a way that maximizes his output. On the other hand, the tenant of a certain farm usually has control over the variable imputs only, while that over the durables rests in the hands of the land owner. This separation of control over the two classes of imputs usually results in a tendency toward less or more than optimum intensity and less than maximum efficiency on a farm.

(2.) The second point is that of certainty of occupancy. The owner-operator is secure and anticipates staying on the farm for many years. His economic purpose in farming is to maximize his income over a life time, while that of the tenant is limited to the period of the lease and in some cases he has no assurance that he can remain on the land for the full period of the lease. This certainty of occupancy affects proportionality and tends to result

in less than maximum efficiency.[34/] Empirical work in measuring the effect of tenancy on production efficiency, as well as on other subjects such as soil conservation and so forth, has not been done in Egypt. In fact very little conclusive research regarding land tenure problems has been reported. Accordingly, it is necessary to rely on a theoretical approach to the problem and general observations.

As to the security of occupancy, the Egyptian tenant is anything but secure. The land owner can kick him out at any time he chooses; even before the termination of the contract signed between the two parties. This strange situation results from the fact that there is usually only one copy of the contract and that is kept by the land owner. This, besides the shortness of the period leases, usually between one to three years, and the lack of any provision for the compensation for the unexhausted improvements, prevents the tenant from using the practices that lead to maximum efficiency of production.

Another point that has a bearing on the subject of effciiency of production concerns the land rented by tenants on an other than cash basis. In 1939 about 66 percent of the area operated by tenants was rented on a cash basis while 34 percent of the area was rented on other terms. In comparison with cash rent conditions it is clear that the degree of intensity of farming operations and hence the efficiency of the farm enterprise as a whole, tends

34/ For further information about the subject see Schickele, R. "Effect of Tenure Systems on Agricultural Efficiencies," Journal of Farm Economics, February 1941, vol. 23. pp 185-198.

to be materially lower under crop share tenancy.[35] Although the extent of share rent in Egypt is not high, its existence involves some inefficiency of production.

Another matter bearing on the subject is the not uncommon practice of the land owners in raising rents whenever they find that the tenant is getting a higher profit as a result of better farming practices. It will be shown later in the section on Landowner-Tenant Relations that there is nothing to prevent the landowner from raising the rent so long as he can find others willing to rent the land. This fear of higher rents prevents tenants from improving the productivity of the land they rent and thus contributes to inefficiency in production.

Despite all that has been stated, research on the subject is needed to give a clear and definite idea about the effect of tenancy on efficiency of production.

(B.) Tenancy and Soil Conservation

The state under which people hold the land they operate has an important bearing on soil conservation. The owner-operator who has complete control over his land, and whose occupancy is secure is the one who can balance his present and future profit and utilize his land in a way that conserves it and maximuzes his profits over his life time. Tenancy is usually associated with three main factors that work against soil conservation. These are:

(1.) The occupancy of the tenant is not secure and is limited

35/ Cf. Schickele, R. loc.cit. p. 194.

to what is usually a short period of time.

(2.) The tenant usually lacks much control over the durable imputs needed for soil conservation.

(3.) Tenancy is always associated with cash crops that diminishes the fertility of the soil.

In Egypt, owning to the shortness of the periods of leases and the tenants uncertainity of occupancy, they usually exploit the land to the extent they can. It is a common thing that tenants neglect the cleaning of ditches and drains, especially in the last year of their lease when they know that they are going to leave the land, a practice that affects the fertility of the soil. They also use as much chemical fertiligers as possible without using manure, a practice that exhausts the soil. These are the practices that make most of the Wakf lands, usually operated by tenants of short occupancy, less fertile and less productive. Actual observations in Egypt highly support the idea that tenancy is a system which usually works against soil conservation. However, the matter depends to a large extent upon the kind of relations existing between land owners and tenants.

(C.) Tenancy and Optimum Size of Unit

The effect of tenancy on the size of units is another important matter. Land holdings in Egypt are distributed in a way that results in a great number of very small holdings that cannot provide enough employment for the owners' family or provide a minimum subsistence, a small number of medium size holdings big enough to keep the family labor busy and enable the family to live a decent life, and still smaller number of large holdings which

are too large to be worked by the family labor and can provide a decent life for more than one family. Were it not for tenancy this situation would have resulted in much waste. Waste of human energy of the families owning very small land holdings and waste of land owned by owners of large holdings whose operation is beyond the abilities of the owners. Tenancy is the way by which owners of small holdings are able to increase the size of their operating units and one of the ways in which the owners of large holdings are able to make productive use of the portion of their holdings that is in excess of the area they can cultivate with family labor. Looking to the average size of land holdings, it was found to be about 2.3 feddans in 1945, while the average size of farm in the same year was six feddans. What brought this increase in the size of the operated unit? The answer is, no doubt, tenancy.

(D.) Tenancy and Optimum Use of Labor Resources

One peculiarity about labor resources is that they can be transported, but not stored. Human labor if not employed is lost forever. There are many families in Egypt who are striving to get a living from farms that are incapable of providing a reasonable level of living because of their size limitations. This problem is intensified by the lack of industrial activities that can attract the surplus labor not needed on the farm. This situation results in waste of man power and less than optimum use of labor resources. In the absence of any industrial or agricultural employmen that can take care of the surplus labor, the only other factor

which effects an optimum use of labor resources is tenancy. A large family owning a small size farm can make efficient use of their labor force by renting additional land and thus increasing the size of their unit. On the other hand, families owning large farms that are beyond their managerial abilities, usually adjust the size of their operated unit in a way that results in optimum efficiency of labor resources by renting out some part of their large farm. Thus, regarding the efficient use of labor resources, tenancy is an important factor that works toward the optimum use of labor resources.

3. Landlord-Tenant Relations in Egypt

The economic and social status of farm tenants are highly affected by the kind of relations existing between landlord and the tenant, as well as by the kind of agreement between them regarding the rights and duties of each. In Egypt the owners and tenants have been guided chiefly by custom in determining the share of the income to be received by each of the parties as well as rights of and duties expected from each party. This would have been all right, were the bargaining power of the two parties somewhat balanced. But with the owners having all the power and the tenants having none, the situation calls for some kind of governmental organization. The following are the most important points as far as those relations are concerned:

(A.) Form of Rent Payment

In Egypt rent payments differ widely from one area to another according to the customs, the fertility of the soil, and

the kind of crops raised. In some cases rents are usually paid in cash, while in others share rent is the common form of rent payment. In still other cases rents are paid in both cash and kind. The following are the most common ways of rent payment in the country:

(1.) Cash rents

This is the most widely used rental arrangement found in Egypt. In 1939 about 66 percent of the total area rented was paid for in cash. It is the rental method usually used by the Bureau of Public Domain, the Ministry of Wakfs, the Royal Wakfs, and on large estates owned by individuals. Under this method some land owners require the tenant to pay a certain amount of money as a deposit before letting them the land. This deposit varies according to the amount of the annual rent which should be paid in full by the end of the year. As to the time of payment and the percentage of the rent paid at the different intervals three ways are followed. These are:

(a.) Payment of the whole amount of rent once a year. Under this type of agreement the whole amount must usually be paid in October or early November in the areas producing cotton and rice as cash crops. In the areas producing sugar cane as the cash crop, the time of payment is usually in January or February, the time of giving the crop to the sugar factories.

(b.) Payment of the amount of rent in two installments. The first payment, which is one-third of the entire amount has to be paid from the winter crops such as wheat, barley, beans and

others, while the remaining two-thirds of the rent is paid from summer crops such as cotton and rice. The tenant usually has to pay the amount due before he harvests the crop, except in those cases in which he pays a deposit. This provision enables the owner to take any legal action against the tenant who does not pay in time, while the crop is still in the field.

(c.) Payment of the rent in three installments. Under this method rents are paid in three ways:

(x.) One-sixth of the rent is paid from Barseam (the Egyptian clover), one-sixth from wheat, barley and beans and the remaining two-thirds from cotton.

(y.) One-third of the rent to be paid from Barseam, one-third from wheat and beans, and one-third from cotton and corn. This method is used in the province of Giza which produces much Barseam because of its nearness to Cairo, and in which some dairy farms are to be found.

(z.) One-fourth of the rent is to be paid from wheat and winter crops, one-half from cotton and summer crops, and one-fourth from corn and other Nily crops.[36] This is the method followed between owners and tenants of small holdings.

(2.) Share rents

Share renting is not as common in Egypt as cash renting. In 1939 only five percent of the total area operated by tenants

36/ Nily crop is any crop sowed any time after June and usually harvested before December of the same year.

on share basis, however, 29 percent of the area was reported to be under other forms of rent payment. Share renting which means that the crop is distributed between the land owner and tenant, usually occurs on small tracts of land and in the cases where the period of lease is limited to one crop only. The proportioning of the crop between owner and tenant differs according to population pressure in the different areas and the production costs paid by the two parties. The different arrangements followed can be summarized as follows:

(a.) Where the owner pays for the seed, fertilizer, the working animals and half the cost of cotton picking and the tenant provides all the labor and pays half the cost of cotton picking, the owner gets five-sixths of the crop and the tenant gets one-sixth.

(b.) Where the owner pays for seed and fertilizer and the tenant provides the labor and the cost of cotton picking, the owner gets four-fifths of the crop and the tenant gets one-fifth. In this case, as well as the previous one, the owner is the one who pays the land tax.

(c.) Where the owner pays nothing except the land tax and the tenant pays all the other costs, the owner gets three-fourths of the crop and the tenant gets one-fourth.

(d.) Where the owner pays only two-thirds of the land tax while the tenant pays the costs plus one-third of the tax, the owner gets two-thirds of the crop and the tenant gets one-third.

(e.) Where the owner does not pay anything and the tenant

pays the cost and the entire amount of the tax, the owner gets one-half of the crop and the tenant gets the other half.

These are the common arrangements followed in share renting in Egypt. However, one might find other arrangements followed in some areas and based mostly on local custom and the bargaining power of the parties. The profitability of each type of these arrangements, whether to the land owner or to the tenant, depends on factors such as the fertility of the soil, the prices of the different products and so forth.

(3.) Rent in kind

Payment of rent in kind instead of cash is not uncommon in Egypt. The two common types of rent in kind are:

(a.) Instead of paying the rent in cash, the land owner and the tenant agree that the tenant will pay the owner an amount of cotton, wheat or whatever they agree upon, the value of which is equivalent to the rent. In computing the value the local market price is used.

(b.) The tenant pays a certain amount of each crop to the owner and takes whatever is left for himself. This method is used when the land is rented for a period of one crop only, and in estimating the amount to be paid by the tenant, the fertility of the soil and the demand for land in the area are usually considered. It is common in Monofiah province, in which the owner received from two to three kantars of cotton, for each feddan producing cotton and from five to six ardab of corn for each feddan producing corn. Under such arrangements the tenant has to

pay the amount agreed upon even if it is all that he is able to get from the land.

(4.) Cash and kind rent

This method is a combination of the first and the third methods. Under it the two parties agree that the tenant has to pay a certain amount of cash and a certain amount of the crop. This method usually enables the land owner to put his hand on the entire crop, sell all or part of it by himself and get his share and then give the tenant what remains.

These are the most common forms of rent payment in Egypt. Cash rent, which is most used, is simple and encourages efficiency of production. Under it the tenant reaps all the fruits of his work but he also bears the risk of crop failure and that of price fluctuation. Under share rent, the owner and the tenant both carry the risk of crop failure and of price fluctuation, but the tenant lacks incentive to intensify production to the most efficient point, since he does not reap the whole fruits. With rent in kind, the farmer reaps all the fruits of his work and bears the risk of crop failure, while the land owner shares with the tenant the risk of price fluctuation. The cash and kind method, as mentioned before, is a combination of the first and the third.

The fairness of any method, however, depends on the amount of rent charged per feddan, whether in cash or in kind, in relation to the fertility of soil, and the adaptability of land for the production of different crops. For instance, it will be more profitable to a tenant to pay three kantars of cotton as rent for

one feddan that produces six kantars than to pay one kantar of cotton as rent for one feddan that produces three kantars, since he will be left with three kantars in the first case and only two in the second while the production costs, (other than rent) nearly equal.

(B.) Length of Leases

The length of lease periods varies widely in Egypt. Many leases are only for one crop, that is five to six months in the case of corn, six months in the case of wheat or Barseam, and ten to twelve months in the case of cotton, others are for periods of three years or even longer. But the year to year lease is the most common one in Egypt. These kinds of leases do not give the tenant any security of tenure and make it impossible for him to plan his farming operations over a period of years. On the other hand, long leases are opposed by land owners since they involve bearing the risk of price changes. The use of provisions in leases that either party must give the other notice a specified period in advance of the date of termination, if he plans to terminate the contract, is confined to the contracts between land owners only, and the tenants of large areas who are actually intermediaries and not real operating tenants. Thus small tenants do not profit by such provision.

(C.) Kinds of Leases and How They Are Negotiated

Most farm leases in Egypt are merely verbal agreements or understandings between landlord and tenant. These oral agree-

ments give rise to many misunderstandings that would be less likely to occur with a written contract, and cause difficulties or failure to renew leases at the end of the year. In some instances, written contracts are used with small tenants, but they are made usually in one copy only and this is kept by the land owner. In some of the densely populated areas, small tenants sign the contracts before the terms are filled in and it is usually kept by the land owner who can add whatever terms he wishes and even can raise the rent if the prices of agricultural products go up. Written contracts made in duplicate, with a copy kept by each party, are usually made only in the case of tenants who rent vast areas and who are actually intermediaries and not real operating tenants. In this respect, the Fellah Department suggested that lease contracts should be made in three copies, one to be kept by each party and the third to be kept in a governmental agency.

The usual practice with regard to small leases is for the tenant and landlord to deal directly with each other. However, in some cases, leases are concluded by way of auction, especially if the land is held by an official agency. Auctioneering is more prevalent in large transactions, and it often happens that crowding at the auction, coupled with ignorance and obstinacy on the part of tenants, results in increasing the rents to exorbitant values.

(D.) Intermediaries

A function, similar to that of the middleman in the process of marketing farm products, is performed by the intermediaries in the matter of renting. In other words, intermediaries in Egypt

appear on the stage between the land owner and the real operator. They are usually wealthy people who can rent vast areas and pay deposits reaching sometimes to the entire amount of the annual rent of the area. After concluding the lease and signing the contract, which is usually for three years in such cases, the intermediary sub-leases the land to many small tenants at much higher rates. The existence of such persons constitutes one of the important factors that inflate rents in Egypt. Of course they carry some risk but in return they charge the small tenants higher rents, sometimes double the rent they pay to the land owner. The elimination of those intermediaries could bring reductions in the rents paid by the small tenant without reducing the amount which reaches the pockets of the land owners.

(E.) Securtiy of Occupation, Compensation for Improvements and Penalties for Deterioration

Most small tenants do not have any securtiy of occupancy. Without such security tenants are not likely to use farm practices that look farther ahead than the present year. Plans to effect such security involves an over all overhauling of the landlord-tenant relations, especially regarding the perios of leases and the registration of contracts. Another important point, that has much bearing on the subject, is that of compensations and penalties. In order to maintain the productivity of the land, tenants have to make improvements. Insecurity of occupancy and the lack of any provisions for the compensation of the tenant for the unexhausted improvements, discourages him from making needed improvements.

Compensation provisions, however, imply that the tenant keeps a complete cost record so that the amount of his compensation at the termination of the lease can be equitably determined. This is not the case in Egypt where practically no small tenants or small land owners keep records of any kind.

Although practically no lease contracts in Egypt contain provisions concerning the compensation for improvements, most of them specify that the tenant must treat the land in a good and proper manner. Most of the contracts, also, specify that in case of negligence and wasteful practices on the part of the tenant, the land owner can terminate the contract at once. Thus the land owner's rights are very well taken care of, in the contracts while the tenant's rights are completely ignored. If the evils of farm tenancy in Egypt are to be removed, lease contracts should be written in at least two copies, one to be kept by each party, and they must contain provisions for compensation for improvements, as well as provisions for penalties for deterioration.

CHAPTER IV

Measures for Improving the land Tenure System in Egypt

A - Introduction

The land tenure system in Egypt, discussed in the previous chapter, apparently is not consistent with the welfare of the majority of the Egyptian people. It not only hinders technological progress in the field of agriculture, but also blocks the way to industrialization. As a result, most of the farm people are left with very low annual incomes which limit their capacity as consumers of industrial goods. This is one of the important points which have to be overcome if industry is to assume a more important role in Egypt's economy. The evils of the system are not confined to its effect on farm incomes. Besides keeping farm incomes too low to permit acceptable levels of living, the tenure system denies farm people the degree of security in the occupation of their land they need to be effective members of their communities and denies them many of the opportunities they need if they are to develop their best personal talents and enjoy adequate social and cultural facilities.

Surprisingly enough, the evils of the land tenure system have not attracted much government attention. Throughout the past half century the government's policy on tenure has been characterized by a lack of regulations. The only field that encountered some action is that of taxation. Taxes on agricultural land have been changed twice since its first standardization in the beginning of this century. Unfortunately, the change has neither discouraged the development of large estates and their maintenance generation after generation, nor encouraged the attainment of desired conditions of tenure. Rather it added to the economic

power of landowners without affecting the position of the agricultural laborers or tenants. In the absence of a balance between the bargaining powers of the landowners on one side and agricultural laborers and tenants on the other, such policy is injurious to the country's economy and inconsistent with the national welfare. It widens rather than reduces inequalities in wealth and income, which is dangerous and pernicious in any society.

The prevailing land tenure system in Egypt does not provide for the best and most efficient land utilization, does not permit the maximization of the country's agricultural output, and is one of the outstanding factors among those responsible for the low standard of living that prevails in the country.

Improving the system is not an easy matter. Two main reasons can be cited:

(1) Although there is no doubt that the present system needs reforming, yet there is no use of substituting one system for another unless there is some assurance that the new system will be advantageous to the national welfare. This assurance can come only through more intensive studies. While undertaking this study the author found that adequate data about the subject are missing and that the reliability of the available data can be questioned. To solve this situation, the whole procedure of collecting data must be changed.

(2) Legislation regulating land ownership as well as landlord-tenant relations is needed if the system is to be improved. The political power of the landowners in the country is such that the enactment of any law designed to weaken their economic power seems almost impossible.

Assuming that these two difficulties could be solved, other measures for

improving the land tenure system are of two categories:

(a) - Measures of primary effect on the relation of man to land. These could be called direct measures.

(b) - Measures of secondary effect on the relation of man to land, which could be called indirect measures.

3 - Direct Measures

These include the following:

(1) Increasing the area under cultivation.

The first step toward improving the land tenure system in Egypt is to increase the area under cultivation. This could be done by converting the area under basin irrigation in Upper Egypt to perennial irrigation and by land reclamation. The total cultivable area of Egypt is 7.1 million feddans of which about 5.8 feddans were under cultivation in 1947, so that in addition to the present cultivable area there are another 1.3 million feddans which could be brought into cultivation. According to Doreen Warriner[1/] it would be possible through present and future irrigation and drainage projects to increase the present cultivated area of Egypt to 6.8 million feddans, a 17 percent increase. The increase in the crop area though will be more than that because of the conversion of the basin irrigated land to perennial irrigation. Increasing the area, however, will not help if not supplemented by other measures, such as birth control and arrangements to prevent the new land from passing into the hands of the big landowners.

(2) More equitable distribution of land holdings.

Land holdings in Egypt are distributed in an inequitable way. In 1945 about 28 percent of the cultivated area was owned by only 0.25 percent of the

1/ Warriner, D. op. cit. p. 46

landowners while 34 percent of the area was owned by 94 percent of the landowners The effects of this concentration of landholdings in very few hands are discussed in Chapter III. They could be summed in the following:

(a) Coupled with the almost fixed supply of agricultural land this concentration inflates the prices of agricultural land and distorts the working of the agricultural ladder.

(b) In the absence of any considerable industrial activities, this condition results in a great number of agricultural laborers and tenants and keeps the wages of the agricultural laborers low while it inflates rents. This lowers the standard of living and hinders technological progress both in agriculture and industry.

(c) The agricultural land is not utilized efficiently. A large part is used for the production of farm-consumed products.

(d) The national agricultural output is not maximized. Costs of production are higher, and net returns are lower on the very large, as well as the very small farms, than they are on the medium sized farms which constitute only 10 percent of the total number of farms.

(e) Many crops which could be produced advantageously are not grown because they do not suit tenancy which is brought about by the concentration of land holdings in few hands.

How might a more equitable distribution of land holdings be effected? The following proposals are recommended:

First - all the reclaimed land which belongs to the government should be divided into medium sized farms of not less than five, and not more than fifteen, feddans and sold on a long term payment basis to farm families who do not now own land. Financing this project and selection of families is an important matter, but is outside the scope of this work. The main thing to be

emphasized is that the method of selling governmental land to big land owners should be stopped.

Second - All the cultivated governmental land now operated by the Bureau of Public Domain, the Ministry of Agriculture, and other governmental agencies, except that needed for experimental work, should be sold in this same way to the farm families. The Bureau of Public Domain should confine its work to reclamation only and not to operation of land. Reclamation may be undertaken by private corporations under the supervision of the government.

Third - All wakfs should be dissolved and sold to small farmers on the same basis.

Fourth - No governmental land should be sold to anyone who does not intend to operate the land himself. This prevents speculation which inflates the prices of agricultural land.

If these four points could be put into action, the additional land that could be brought under cultivation by irrigation and drainage projects would not pass directly into the hands of the big landowners or of the speculators who raise land prices to figures beyond the purchase ability of the small farm people.

But what about the already existing state of concentration which would not be affected by these measures? This problem should be dealt with separately and the solution is to be found in the adoption of a new taxation system. The development of large estates could be discouraged by graduating taxes on the basis of holdings as has been done in some other countries such as New Zealand. The maintenance of large estates generation after generation may be discouraged by gift and inheritance taxes, as Great Britain has done since World War I. Or inflation of land prices may be reduced by taxes on capital gains, as has been suggested several times in recent years in the United States2/

2/ Marshall Harris and Joseph Ackerman. Family Farm Policy p. 11. The University of Chicago Press. Chicago, 1947

Rich people in Egypt like to invest their money in agricultural land rather than in industrial activities for two reasons:

First - The Egyptian culture over-estimates the values of landownership. Changing people's ideas and values can take place through education but this is a long and slow process.

Second - The profit motive guides people to invest in agricultural land which is non-exhaustable and which promises lucrative returns. Besides the risk involved is less than that which accompanies investment in any other economic goods. If investment in agricultural land could be made less profitable by the imposition of of taxes which could not be shifted, then many people would prefer to invest in industry. The industrial potentialities of Egypt will be briefly discussed later in this chapter. Thus to cure the existing state of concentration of land holdings in few hands and to effect more equitable distribution of land holdings in Egypt, there is need for a new taxation system.

Farm credit of the right kind is another way by which more equitable distribution of landholdings could be attained. As was indicated earlier, the prevailing credit system in Egypt does help neither the farm laborer nor the tenant to climb the agricultural ladder. There is an urgent need for a new credit agency patterned after the Farmers Home Administration of the United States Department of Agriculture. Only such an agency can help the agricultural laborers and tenants to become landowners. It would be more beneficial to the country's economy for the government to create and support such an agency than to continue the time and money wasting practice of persuading the different banks not to foreclose on the vast mortgaged areas owned by big landowners who, expecting governmental interference, defer as

long as possible the repayment of loans.[3] Most of those who benefited from such agreements are large absentee' landowners who borrow money for the purpose of living luxuriously rather than for the improvement of the productivity of their lands. Instead of continuing its support of a practice that fosters the development of large estates generation after generation, the government should let the banks foreclose, but compel them to promptly sell the land in small amounts to eligible farm laborers and tenants on long term credit basis.

(3) More efficient size of operated unit[4]

As indicated in Chapter III, in 1947 more than 80 percent of the Egyptian farms were less than five feddans in size, about 18 percent were between five and fifty feddans and about 1.5 percent were larger than fifty feddans. However, the group of small farms occupied only about 18 percent of the total cultivated area, while the group of medium size farms occupied about 36 percent of the total area, and the group of large farms occupied about 45 percent of the total area. It was found too that the medium sized group is the most productive of all, while the large and the small farms were less productive. This means that about 82 percent of the farms which occupied about two-thirds of the total cultivated area were either smaller or larger than the most efficient size of farms in Egypt.

Besides the inefficient size of farm, parcellation of the holding is common in Egypt. Thus if the productivity of the Egyptian farms is to be raised and the country's agricultural output is to be increased, the number of the more efficient medium sized farms should be increased and the problem of parcellation should be remedied. As to increasing the number of medium sized farms, it could be done by the following methods:

3/Issawi, Ch. op. cit. p. 129

4/Similar measures were taken in many other countries such as the Netherlands and Czechoslovakia.

(a) Preventing the break down of holdings below a minimum area of five feddans. It is indicated earlier that holdings which were between five and ten feddans were the most productive units in the country. Besides, five feddans is the minimum size of unit which permits a reasonable standard of living (allows reasonable food, clothing, shelter and educational and medical facilities) for an Egyptian family. Inheritance is the common way through which land holdings are usually broken down. Thus a law that prohibits the division of any estate between heirs, if this division will result in the creation of units smaller than five feddans, should be passed. This is no violation of the Islamic law of inheritance as some writers are inclined to think, since each of the heirs will receive the value of his share. The process would be like this - suppose the whole estate were twelve feddans while the number of heirs was four. In such a case, the value of the property is to be estimated by a governmental agency. The property is to be divided between two of the heirs with each one getting six feddans. Those who get the land would have to pay to the other two heirs the price of the shares to which they are entitled. This procedure could be made possible by the aid of governmental farm credit as will be discussed later in this chapter. As to the priority in getting the land, it should be based on such things as personal interest in farming, amount of farming experience each of the heirs has and so forth. Should all the heirs be farmers, the additional heirs could be given governmental land in some other place and they could be induced to go to the new locations by offers of special credit or transportation facilities or free land registration. Legislation to this effect would help prevent the uneconomic parcellation of farm holdings in the future.

(b) As to already existing small units, the solution is to be found in consolidation. Holders of small tracts of land should be asked to dispose of them, either to others who want to increase the size of their units to the minimum size permitted, or to the government. They should also be given priority in getting governmental land and receiving the facilities mentioned above. On the other hand, small pieces of land taken over by the government should be consolidated into economic units and distributed to farmers according to the procedure recommended above. This measure, coupled with legislation discouraging parcellation, should lead to the eventual disappearance of the small uneconomical landholdings which are now abundant in Egypt.

As to the parcellation problem, one remedy is re-allotment. It is a measure which is tried by some countries and works successfully. Under the act of 1924 a simple majority of the landowners in the Netherlands can force a re-allotment scheme, provided these landowners also control more than half of the acreage in the particular area.5/ A scheme patterned after the "ruilverkaveling" of the Netherlands, with the supervision and aid of the government and the modification which suits the situation in Egypt can certainly solve the parcellation problem and make an end to the troubles resulting from it.

(c) The number of the medium sized farms also could be increased if more large estates were broken down into medium sized ones. This could be done in two ways:

First - By limiting the area of land which could be owned by a single owner. A law may be passed limiting the size of land holdings and asking all those owning areas larger than the maximum limit to sell the difference between the limit and what they actually own either to others willing to buy farms under the supervision of the government, or directly to the government. In the second

5/ Marshall, H. & Ackerman, J., op. cit. p. 211

case the government can in turn divide the land into medium size units and sell it to farmers. Because of the concentration of political power in the hands of the landowners, this direct measure is unlikely to take place in Egypt at the present time. Any measure which challenges their power is usually bitterly opposed and defeated.

Second- The power to tax is another effective weapon which could be used by governments to attain desirable land tenure situations. Land taxes on holdings larger than fifty feddans should be graduated on the basis of size. This would make landownership of large holdings less profitable and would encourage capitalists to invest in industry rather than in land. Landowners are favored under the existing taxation system. They pay a flat rate which does not exceed 164 P.T. per acre. In 1945 the tax was supposed to be 16 percent of the annual rental value of feddan. The amount of taxes imposed in that year on the 5,715,245 privately owned feddans was 5,424,752 Egyptian pounds. This means that the average tax was 0.95 Egyptian pounds per feddan. In the same year the average rent was found to be 19 Egyptian pounds. Thus the actual tax rate was only five percent of the rental value. Another kind of tax which should be used in Egypt is the gift and inheritance tax. They discourage the maintenance of large estates generation after generation. A capital gain tax also could be used in Egypt to check inflation of land values. On the whole, improvement of the land tenure system calls for extensive reforms in the entire taxation system.

(d) The farm credit system is another thing which needs reform if the land tenure system is to be improved. As was indicated earlier, farm credit facilities in Egypt do not help tenants or agricultural laborers climb the agricultural ladder. But they can be used to increase the number of the more efficient medium size farms in the country. They can help in correcting the continuous break-down of estates to very small uneconomical units through inheritance by making

it possible for one of the heirs to buy out the shares that the other heirs would normally receive under the law of inheritance. Farm credit agencies also could help the owners of small parcels of land to buy the additional tracts they need to bring their farm unit up to the more economical size. It should be emphasized here that only governmental farm credit agencies which are concerned with helping the people rather than exploiting them could perform such functions.

(4) More equitable landowner-tenant relations

The tenancy problem in Egypt is analyzed in Chapter III. Here it is indicated that the landowners have practically all the bargaining power while the tenants have practically none. Insecurity of the tenure tenant mobility and the shortness of the tenancy occupancy period have an adverse effect on the productivity of the leased land. If the tenancy situation is to be improved in Egypt, the government should step in and supervise and regulate the leasing process as it has in some other countries. An act should be passed that provides for the following points:

(a) All leases should be registered and approved by a local leasing board which consists of a government official, a representative of landowners and a representative of tenants. All tenancy disputes should be handled by this board. Any disputes that can not be solved should be transferred to a tenancy court composed of the local judge and two agricultural experts as members. The decisions of this court should be final.

(b) Leases should be written with three copies, one to be kept by each party and the third by the local board. Verbal contracts for renting land should be considered invalid.

(c) Leases should not be conducted through auction.

(d) Intermediaries or middle men should be eliminated by law. Only those who intend to operate the land should lease it.

(e) The minimum lease period should be made three years during which the landowner could not terminate the lease so long as the tenant is meeting all his obligations.

(f) Leases should be terminable by either party, after the three years and after due notice given at least six months in advance.

(g) All improvements made by the tenant and capable of removal should be removed by him at the termination of the lease.

(h) The landowner should compensate the tenant for specified unexhausted improvements which he does not remove at the time of quitting the holding, provided that for certain type of improvements the prior consent of the landowner be obtained.

(i) The tenant should compensate the landowner for any deterioration or damage due to factors over which the tenant has control, and the landlord should be empowered to prevent continuance of serious wastage.

(j) Adequate records should be kept of outlays for which either party would claim compensation.

(k) The lease should not automatically expire with the death of the lessor or leesee. Heirs of the tenant should have priority to continue until the expiration of the period.

These provisions protect both the landowner and the tenant. They give the tenant the security, the protection and the time in which he can organize his enterprise over a longer period and be more efficient in his work. On the other hand, they protect the rights of the landowner and enable him to stop any wastage, claim compensations and terminate the lease at the end of the period, after due notice.

C. Indirect Measures

Measures which have a secondary effect on the land tenure system include the following:

(1) Education

Education is the name applied to the process whereby the socially approved part of the cultural heritage is transmitted from one generation to the next, and the process whereby newly acquired knowledge is diffused among the members of society.[6/] It ranks among the major tasks, educational progress among the chief hopes of society.

In spite of the vast expansion which took place as far as education in Egypt is concerned, the majority of the people are still illiterate. Educational facilities especially in rural areas are short. Competent and well prepared teachers are lacking generally and completely missing in rural areas. A well planned program of general education for all children and youth, and also suitable preparation for particular vocations in accordance with the needs of children and youth in Egypt has not as yet been provided. Worst of all is the fact that the educational system is a dual one: primary, secondary and higher schools for the minority well-to-do, and free elementary education only for the masses, especially in rural areas. Elementary education, which in most of the cases is all that is available for rural children is concerned with the three R's. Pupils who finish this course are seldom able to enter the secondary, technical or vocational schools. Elementary education provides only a means of stamping out illiteracy, and a non-efficient means at that it should be emphasized. The trouble with the Egyptian rural education is that the rural school is the only available

6/ Smith, T. L., op. cit. p. 385

institution which can be used. No other institutions share the task. Even the Egyptian rural family cannot be considered an important educational agency as is the case in more advanced countries.

Criticizing the educational process in Egypt and designing a more efficient program is not within the scope of this work. It should be emphasized, however, that efficient education would help improve the land tenure system in the following ways:

(a) There is an urgent need for more educated workers, technicians, administrators and so forth to work in securing a better and more efficient utilization of the national resources. Without adequate educational programs, skill and intelligence will remain at the present low level.

(b) Education is needed in Egypt to relieve agriculture of the surplus labor force which depresses the wages of the agricultural workers and inflates rents on one hand and decreases per capita agricultural output on the other hand. Through education more rural youth could be directed to leave agriculture and engage in industrial production.

(c) Education provides one means through which the rapid increase in population might be checked. Without slowing down this increase, population pressure on land will continue and little can be done to improve the standard of living of the masses. As yet no studies have been made of the effect of education on the birth rate in Egypt. But several studies in the United States and Canada show a close relationship between educational and fertility attainments. In summarizing the results of various field studies of the Milbank Memorial Fund conducted since 1930, Notestein found that there is a close and consistent inverse relationship between schooling and fertility.[7]

7/ Landis, P. H. Population Problems. p 116. American Book Company, New York, 1943.

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7/ Landis, P. H. Population Problems. p 116. American Book Company, New York, 1943

There is no reason why the relationship should be any different in Egypt.

(2) Industrialization

It is indicated in Chapter I that in spite of the industrial progress that has been taking place in Egypt since World War I, the role played by industry in the country's economy is still a minor one compared with that played by agriculture. If industrial developments could be accelerated, land tenure conditions would consequently be ameliorated. The greatest opportunity to help people whose labor is not needed in agriculture consists in providing industrial employment for persons desiring to work. A report issued by the United States Department of Agriculture in 1945 states,[8] "What peace can mean to American farmers depends more upon the level of business activity and non-farm employment that can be maintained after the War than upon anything else, . . ." If the surplus farm labor in Egypt could be transferred to industry, many of the evils of the land tenure system would disappear.

The development of industries to support a large urban population is considered by most population scientists as one of the changes required if a nation is to have a rapid decline in fertility. In this connection F. W. Notestein[9] states, "Such a development takes people out of their former context, breaks the cake of custom, and permits the growth of new individualistic aspirations. Moreover, it is essential to draw a surplus and ineffective agricultural population into effective production. The development of light industries, such as textiles, in which women can be employed away from the home, is especially important as a means of giving women new independence and a milieu for the dissemination of new ideas."

8/ U. S. Department of Agriculture, What Peace Can Mean to American Farmers. Misc. Pub. 570, Washington, D. C., 1945. P. 1

9/ Notestein, F. W. Demographic Studies of Selected Areas of Rapid Growth. Milbank Memorial Fund, New York 1944. pp 153-154.

Although industrialization is always mentioned whenever the advancement and progress of the economically backward countries are discussed, it is not as easy an objective to achieve as many writers are inclined to think. In order to succeed, industrialization must be based on a sound economic basis and many prerequisite conditions must be present.

Many of the prerequisites of industrialization are present in Egypt. It enjoys a remarkable geographical location which gives it accessibility to most of the markets of Europe, Asia and Africa. It has quite a number of minerals, notably cement, manganese, phosphate and titanium ore. In 1938, Egypt was the seventh largest producer of phosphate in the world.[10/] Large deposits of very high grade iron ore have been discovered near Aswan. Other minerals which are to be found in Egypt are mentioned in Chapter I. Besides the mineral resources, agricultural raw materials are abundant, such as cotton, leather, sugar cane, fruits and vegetables, etc. Cheap power can be obtained from electrifying the Nile dams, or from the oil wells which are continually expanding to the extent that they more than cover the present needs of the country.

Labor is abundant and cheap, but lacks the skill and know-how which could be acquired through the extension of education and the aid of advanced foreign countries that are willing to offer aid to backward countries without imperialistic motives. Capital is now available in reasonable amounts since profits were considerable during the War years. Those factors aided by some kind of tariff protection and agrarian reform are apt to accelerate the industrialization of the country.

The following are some of the industries which may flourish in Egypt:

(a) Industries that depend on drilling, mining and quarrying.

Promising industries of this type are oil drilling and refining,

10/ Ezekiel, M. Towards World Prosperity. Harper & Brothers, New York

phosphate extraction and manufacturing of superphosphates, production of salt, cement production, iron ore and steel manufacturing.

(b) Industries that depend on the agricultural raw materials such as the following: textile industry, grinding and pressing, cottonseed oil industry, soap industry, sugar manufacturing and refining, dairying, preserved fruits and vegetables, tanning and leather work.

(c) Other industries as construction, chemical industry, fertilizers, paper, furniture, cigarette, brewing, glass and transport industries.

(3) Migration

Migration is one of the factors that affect population density and man-land ratios in any country. It adds to population pressure in the receiving country while it temporarily relieves the pressure in the sending country. In very recent times, Egypt was a receiver country and not a sender one. Many of the Mediterranean countries have been sending migrants to Egypt, either through the migration office or illegal border crossings. The majority of those migrants are unskilled laborers of Arab stock who come looking for work. This aggravates the population problem and calls for more restrictive regulations on immigration.

Whether emigration can reduce population pressure in Egypt depends on the magnitude of the migration and the duration of the movement. Heavy and lasting emigration to large regions would be of some help. But where can the Egyptian people, who are by nature sedentary and loath to emigrate, go? The only places where the Egyptians can find conditions similar to those in Egypt, such as climate, soil, language, customs and religion are in the neighboring uncongested Arab countries such as Iraq and Syria. There is much doubt, however, that the governments of these countries would agree to take in large migrations.

The Sudan, with a land area equivalent to about one-fourth the area of Europe and its population of only six and one-half million people, might serve as an important outlet for the surplus Egyptian population. Unsettled issues and differences of opinion between the Egyptians and the British concerning this area provide an obstacle to this solution. But even after the settling of the Sudan problem, not much emigration could be expected without the aid and the inducement of the government.

Internal migration is another matter which can help in improving the tenure system in Egypt. As mentioned earlier population density varies widely in the different provinces of Egypt. Thus the northern provinces are less populated. This situation results in the existence of surplus agricultural workers in some provinces and lack of laborers in others. Wage differentials do not help correct the situation because of the ignorance and inertia of the laborers. Governmental programs to induce the people to move from the congested areas to less congested ones, coupled with the extension of education would certainly help in correcting this situation.

(4) Birth Control

Birth control, if accepted by the people and practiced correctly, would provide a most effective means of checking population pressure. It is needed in Egypt as badly as it could be needed anywhere else, but unfortunately it is not practiced by those who need birth control. Although it has become quite respectable in many civilized countries, it is still looked upon in Egypt as something immoral. It is also bitterly opposed by some of the religious leaders although it was approved some years ago by the Grand Mufti of Egypt and the Rector of Al-Azhar,[11/] and by some political leaders who tend to regard the quantity of the people, regardless of their

11/ Cleland, W.W. A Population Plan for Egypt. Demographic studies of selected studies of selected areas of rapid growth, Millbank Memorial Fund, New York 1944. p. 135.

quality, as a prerequisite to the strength of any nation. With the spread of education, the people of Egypt are becoming more and more conscious of the population problems and some of them are becoming birth control minded. The evidence of this is shown by the organization of a social society called "The Happy Family", which has for its aim the opening of birth control clinics.[12/]

Birth control in Egypt should be considered as a long term measure for the improvement of the population situation and the land tenure system, because it requires a long time to change the ideas of the masses about the subject and to get birth control methods diffused among them.

One thing that needs to be emphasized before closing this chapter, is that all the measures mentioned, whether direct or indirect, are complementary. Each of them complements the other and cannot by itself solve the problem. It is only through a well planned program of action composed of many approaches that the tenure system in Egypt can be improved.

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(12) Ibid.

CHAPTER V

Summary and Conclusion

Egypt is predominantly an agricultural country with 75 percent of its population depending for their livelihood on agriculture. Although the total area of Egypt is about 386,000 square miles or more than three times that of the British Isles, only about 13,500 square miles are cultivable. This productive area involves around 8 million feddans of which only about 5.8 million feddans were under cultivation in 1947. In the same year the population of the country exceeded 19 million people and 99 percent of this population lived in the cultivable area of the Delta and the Nile Valley which represents about 3 percent of the total area of the country.

Egypt is one of the most highly congested population areas in the whole world. In 1947 it had an average of 1,210 persons dependent upon agriculture for every square mile of agricultural land. Probably nowhere else in the world is there so large a population per square mile that is dependent solely upon agriculture and so free from the risk of drought as in Egypt. This last condition is made possible by the Nile, on whose regular supply of water the fertility and prosperity of the country are entirely dependent.

Thanks to the perennial irrigation system which makes possible the production of two or even three crops per year from the same piece of land, the crop area of the country far exceeds the cultivable area. In 1948 the crop area was about 9.1 million feddans while the cultivable area was only 5.8 million feddans. Many factors, such as rainfall, irrigation, drainage, technological achievements, urban land use and so forth make the economic supply of agricultural land almost fixed. The supply of land could be increased only

by huge irrigation and drainage projects but the increase would by no means be large.

Although the death rate is very high in Egypt, especially among infants, it will certainly decline with the spread of the medical services to the rural areas that are only now securing the benefits of medical science. The birth rate, on the other hand, is also very high and for cultural reasons is not likely to drop as fast as the death rate. The result will be a rapid increase of the country's population. In the absence of rapid industrialization, this means more population pressure on land. The man-land ratio is high, reaching three persons per one feddan in some of the provinces of Egypt. Under the present tenure system this means a very low standard of living for the majority of the people.

The present concept of private property rights was not developed in Egypt until the second half of the nineteenth century. The inequality of opportunity for getting land, which prevailed under Turkish rule, and continued to prevail with some modifications during more recent history, is responsible for the present concentration of land ownership in few hands.

In 1890 the total number of holdings was 767,000. By 1945 this number had increased to 2,606,000. This increase in the number of landed properties is accounted for by the increase in the number of very small holdings which are often too small to provide their operators with even a minimum subsistence level of living. Holdings which are less than five feddans numbered 611,000 in 1890 and 2,447,000 in 1945, while the holdings of 5-49.5 feddans increased slightly from 144,000 to 147,000 in 1945. The number of holdings of fifty feddans and up was 12,000 in both 1896 and 1945.

The average size of holdings in the country steadily decreased from 6.5 feddans in 1896 to 2.3 in 1945. In this year the average size of holdings

owned by Egyptian nationals was 1.9 feddans, that owned by wakfs was 34 feddans and that owned by foreigners was 83 feddans.

In 1945 holdings of less than one feddan accounted for were 71 percent of the total, those of 1-1.9 feddans for 13 percent and those of 2-4.9 for 10 percent of the total number of holdings. This means that holdings of less than five feddans accounted for 94 percent of the total number of holdings. Holdings of 5-49.9 feddans were 5.5 percent of the total and only 0.5 percent of the holdings were above 50 feddans in size.

In terms of area the picture was different. The group of holdings of less than five feddans occupied 34 percent of the total area and averaged 0.8 feddans per holding, the group of 5-59.9 feddans occupied 29.9 percent of the total area and averaged 12 feddans per holding, and the group of holdings of more than 50 feddans occupied 36.1 percent of the area and averaged 179 feddans in size. The top 0.25 percent of the landowners owned 28.2 percent of the land while the lower 94 percent owned only 34 percent of the land.

The average size of farm in Egypt in 1947 was six feddans. But the majority of the farms were far smaller than the average. Farms of less than one feddan represented 37 percent of the total, those of between 1-1.9 feddans 20 percent while those of less than five feddans represented more than 80 percent of the total number of farms. Those of between 5-49.9 feddans accounted for 18 percent and those of above 50 feddans for about one percent of the farms.

Besides the very small size of the Egyptian farms, most of them are made up of numerous tracts, sometimes of very impractical size and sometimes at great distance from each other and from the farmer's house. This situation involves considerable and much unnecessary waste. As to who owns the land in Egypt, the following figures give the answer -

Land in private ownership	63 percent of the total
Wakfs	8 percent of the total
Land owned by the government	29 percent of the total
total	100

Inheritance is the principal way by which land is acquired. The available data on tenure groups in Egypt are probably not completely reliable but do indicate that landless agricultural laborers outnumber the owner operators and the renters combined. The number of landless laborers has increased rapidly (between 1927 and 1937 the increase was 121 percent).

The three main tenure groups in Egypt, the owners, renters and laborers namely, may be divided into subgroups as follows:

A. Owners
   1. Owners of a whole debt free farm
   2. Owners of part of a debt free farm
   3. Owners of a whole mortgaged farm
   4. Owners of a partly mortgaged farm
   5. Owners of a small debt free farm who rent some land
   6. Owners of a small mortgaged farm who rent some land

B. Renters
   1. Cash renters
   2. Cash and share renters
   3. Share renters who pay the owner a fixed amount of the product
   4. Share renters who pay the owner a percentage of the product

C. Laborers
   1. Tamallia
   2. Family laborers
   3. Hired laborers
   4. Migratory laborers

This classification of groups and subgroups implies both higher financial standings and greater independence of control for the first listed groups than the later listed ones. Data concerning the age distribution of the farmers in the various tenure groups and their tenure experiences are not available.

Comparison of average wage rates and land values in Egypt and the United States for 1945 shows that an average acre of farm land in the United States was worth the equivalent of less than 10 days of the average farm worker's wages. In Egypt an equivalent farm land area claimed a price equal to about

20 years of the average Egyptian worker's wages. In 1939 this period was 27 years. This shows the almost insurmountable difficulties associated with the climbing of the agricultural ladder in Egypt.

The investigations of the Fellah Department of the Egyptian Ministry of Social Affairs have revealed that on the big estates where records are kept and where some of the land is operated by the owner and some of it is rented out, the rents charged were in some cases higher than the net output obtained from the land operated by the owner. This shows that tenants in Egypt frequently are little better off than the agricultural laborers. Actually, their rental payments in many cases absorb part of their income as laborers and operators as well as the full economic rent due to land.

Farm credit facilities available in Egypt do not help either the agricultural laborers or the tenants in climbing the agricultural ladder.

As to costs, returns and efficiency on different sizes of farms, in 1947 about 81 percent of the Egyptian farms were of small size with an average of 1.4 feddans and average gross output of 35.4 Egyptian pounds per feddan, 18 percent were of medium size (5-50 feddans) with an average size of 12.4 feddans and an average gross output of 39.9 Egyptian pounds per feddan, and only one percent of the farms was of the large size (over 50 feddans) with an average size of 173.4 feddans and an average gross output of 36.9 Egyptian pounds per feddan. The medium sized group, farms in the 5 to 10 feddan size group had the highest average gross income - an average of 41.4 Egyptian pounds per feddan.

According to a survey undertaken in 1938, the most productive and the most efficient size of farm unit was found to be around 5 feddans. This means that the breakdown of the large estates into medium sized farms and the elimination of the very small farms could lead to an increase in total

productivity and in the national agricultural output.

The tenure system in Egypt affects land use in the following ways:

(1) A Sizable area is devoted to the production of farm consumed products and in the growing of these products the farmer is not guided by economic factors.

(2) It hinders the use of the intensive farming methods needed to take care of the problem of the surplus agricultural laborers and also hinders the production of some crops that could be produced with advantage while the country's need of these products is filled through importation.

(3) It leads to the unsound economic practice of growing crops in the production of which the country has a comparative disadvantage while discouraging the production of some other crops that could be produced with advantage.

The land tenure system affects the national agricultural production in two ways:

(1) The system favors production of particular crops which suit either the owners of small parcels of land or the absentee landowners. While the value of the national agricultural output could be increased through a shift in crop production, the land tenure system does not permit such shifts.

(2) The number of medium sized farms, the most efficient size in Egypt, is very small compared with that of the very small and the large farms. Reform of the tenure system insofar as it leads to move efficient production and farm sizes can lead to increases in total agricultural output.

The land tenure system in Egypt results in the following:

(1) The existence of a very large group of landless agricultural laborers who, because of limited industrial activities, are forced to rely

on agriculture for their livelihood. Because of their large number and the concentration of land in few hands, they are forced to accept very low wages which do not permit an acceptable standard of living.

(2) The large tenant class and their weak bargaining position as compared with that of the landlords leads to rack renting. Instead of making something out of their work, most tenants live miserable lives and deprive themselves in order to be able to pay their high rents.

(3) The standard of living for the majority of the farm people is very low; anything below is death. More than 84 percent of all the landowners have an annual income that is less than the necessities of life. According to the figures available in the Bureau of Agricultural Economics of the Egyptian Ministry of Agriculture, out of the 5.9 million feddans of total area 3.5 million feddans were operated by tenants while only 2.4 million feddans were operated by owners. This indicates that tenancy is becoming more extensive in Egypt.

Conditions contributing to tenancy in Egypt:

1. Concentration of land holdings and parcellation.
2. Small average size of farm holdings and large farm families.
3. Lack of any restrictions on land ownership.
4. Lack of industrialization.
5. High land values.
6. Lack of efficient farm credit system.
7. The Wakf system

While the tenancy system may not foster high efficiency in production and soil conservation it helps to adjust the size of the operated unit and to provide optimum use of labor resources.

Forms of rent payments in Egypt include the following:

1.- Cash rent
2 - Share rent
3 - Rent in kind
4 - Rent in kind and cash at the same time.

Time of payment and the amount paid at different times varies according to custom and the kind of crops produced. The fairness of any method depends on the amount of rent charged per feddan whether in cash or in kind, in relation to the fertility of the soil and the adaptability of land for the production of different crops.

Length of leases in Egypt varies from one crop only to three years or even more. But the year to year lease is the most common. This kind of lease does not give the tenant any security of tenure and makes it impossible for him to plan his operations over a period of years.

Most of the leases are verbal agreements. Written contracts are sometimes used but usually between landowners and the intermediaries who are not actually renters. In some cases written contracts are used with small tenants, but these usually consist of one copy only and that is kept by the landowners. In some areas, small tenants sign blank contracts. Land rentals rates are sometimes established at public auctions. The common result is an inflation of rents. Intermediaries often appear on the stage between the landowners and tenants. They often collect more than double the rent from the tenant that they pay to the landlord. Renters have little security and they cannot claim compensation for unexhaustable improvements. But they usually are held responsible for any deterioration that affects the land. Thus the landowner's rights and the tenant's responsibilities are very well taken care of in the usual contract while the tenant's rights are generally disregarded.

Besides the very low income which the majority of the farm people get as a result of the system, they neither enjoy the degree of security in the occupation of their land which enables them to be effective members of their communities, nor have such opportunities as are necessary to enable them to

develop their best personal talents and enjoy adequate social and cultural facilities. Throughout the past half century the government has made little or no attempt to regulate the tenure system. Its policy has been one of non-regulation. Two main factors hinder the improvement of the system. These are:

1. Lack of reliable data and information on the subject. Correcting this situation calls for a change in the entire procedure of collecting data in Egypt.

2. The political power of the landowners in Egypt is such that it is difficult, if not impossible, to enact any legislation that has an adverse effect on their traditional rights.

If these two obstacles could be overcome, other measures for improving the tenure system fall in two categories:

A - Direct measures which include steps to secure:

(1) Increases in the area under cultivation.
(2) More equitable distribution of holdings.
(3) More efficient size of operated units.
(4) More equitable landowner-tenant relations.

B - Indirect measures which include -

(1) Education
(2) Industrialization
(3) Migration
(4) Birth control

All these measures are complementary and no one can solve the problem by itself. It is only through a well planned, carefully integrated program of action involving these proposed measures that the tenure system in Egypt can be improved.

A P P E N D I X

Table 1 LAND ACREAGE, EGYPT 1929*

Classification	Feddans	Percent of Total Egypt
Total area of the Kingdom of Egypt (approx.)	252,000,000	100.00
Total area of uncultivable desert land	243,000,000	96.30
Total area covered by the Agricultural Census 1929	8,953,000	3.70
Total area of Nilotic Egypt 1/	8,427,000	3.40
Total agricultural land of Desertic Egypt	525,827	0.30
Total area in farms	7,723,856	3.09
Area in farms not including land for public utilities temporarily leased	7,707,725	3.08
Area reserved for public utilities but temporarily leased for cultivation	16,131	.01
Public utility land uncultivated	703,455	.31

1/ Includes the Valley and the Delta of the Nile.

* Source: E L-Zalaky, M.M. An Analysis of the Organization of Egyptian Agriculture and Its Influence on National Economic and Social Institutions. Doctoral Dissertation, University of California, Berkley 1941.

Table 2 Mean Temperature in Egypt in Centigrades 1945*

Month	Region Mediterranean (Alexandria)	Middle of Delta	Cairo	Assyut	Aswan
January	13.4	10.4	12.4	11.7	16.0
February	13.4	10.4	12.4	11.5	14.8
March	14.5	11.1	14.0	13.8	18.6
April	17.3	16.1	19.0	20.4	24.4
May	22.1	21.9	25.9	27.6	31.0
June	23.5	24.2	26.1	27.4	33.6
July	25.6	26.2	28.4	29.2	33.8
August	27.4	26.9	29.2	30.0	34.5
September	26.0	24.2	26.1	26.9	31.3
October	23.0	20.6	22.4	23.0	27.6
November	19.9	17.7	18.9	18.3	23.2
December	14.6	12.0	13.2	12.4	16.6
Average	20.1	18.6	20.7	25.3	25.3
Average Maximum	24.7	27.4	28.1	29.5	33.2
Average Minimum	17.3	11.7	15.1	14.4	18.4

*Source: Annuaire Statistique. Egyptian Government 1944-45.

Table 3 Relative Humidity in Egypt 1945*

Month	Region Mediterranean (Alexandria)	Middle of Delta	Cairo	Assyut	Aswan
January	67	88	68	68	44
February	62	88	70	64	36
March	60	86	64	60	28
April	66	78	58	40	20
May	74	68	48	36	20
June	76	72	56	37	20
July	76	77	60	42	22
August	74	80	59	42	23
September	68	81	65	49	24
October	60	82	66	58	31
November	68	86	70	62	36
December	57	84	66	64	42
Average	67	81	62	52	29

*Source: Annuaire Statistique. Egyptian Government 1944-45

Table 4 Millimetres of Rainfall in Egypt 1945*

Month	Region Mediterranean (Alexandria)	Middle of Delta	Cairo	Assyut	Aswan
January	28.1	8.0	Drops	Drops	Drops
February	54.4	7.5	4.2	0.0	0.0
March	18.0	9.5	4.8	0.0	Drops
April	0.6	Drops	Drops	0.0	0.0
May	5.4	7.0	10.1	15.0	8.4
June	0.0	0.0	0.0	0.0	0.0
July	0.0	0.0	0.0	0.0	0.0
August	8.0	0.0	0.0	0.0	0.0
September	Drops	0.0	0.0	0.0	0.0
October	0.2	0.0	0.0	0.0	0.0
November	65.6	5.0	1.8	0.0	0.0
December	25.7	4.0	Drops	0.0	0.0
Total	198.0	44.0	20.9	15.0	8.4

*Source: Annuaire Statistique. Egyptian Government 1944-45

Table 5 Mean Hours of Sunshine per Day in Egypt*

Month	Region	
	Mediterranean Coast	Delta and Middle Egypt
January	7.0	7.1
February	7.8	8.2
March	8.8	8.8
April	10.0	10.3
May	11.3	11.3
June	12.4	12.6
July	12.4	12.3
August	12.0	11.6
September	10.8	10.8
October	9.6	9.6
November	8.5	8.5
December	7.0	7.5
Average	9.8	9.9

*Source: Atlas of Egypt. Egyptian Government 1921

Table 6 Nile Discharges and Their Rain Equivalents*

Month	Before Operation of Aswan Dam 1899		After Operation of Dam 1912	
	Discharge	Rain Equiv.	Discharge	Rain Equiv.
Jan.	4,260	7.10 inches	2,990	4.44 in.
Feb.	2,710	4.16 "	2,990	4.44 "
Mar.	2,140	3.36 "	2,640	4.00 "
Apr.	1,325	2.00 "	1,840	3.60 "
May	1,176	1.80 "	2,130	4.08 "
Jun.	1,555	2.40 "	2,650	5.10 "
Jul.	5,892		4,590	8.84 "
Aug.	21,165		16,900	33.00 "
Sept.	23,828		20,300	39.60 "
Oct.	16,050		14,600	28.40 "
Nov.	9,642		7,260	14.16 "
Dec.	5,839	10.20 "	3,950	7.68 "

*Source: Selim, Hussien K., Twenty Years of Agricultural Development in Egypt - Egyptian Government Press, Cairo, 1940.

Table 7. Department of Mines and Quarries Revenue
1932-1946

Year	Mines and Petroleum	Quarries	Suez Refinery	Aba Zoabal Basalt Quarries	Sukari Gold Mines	Total
	L.E.	L.E.	L.E.	L.E.	L.E.	L.E.
1932-33	43,291	20,432	-	-	-	63,723
1933-34	41,080	33,043	75,547	-	-	149,670
1934-35	48,584	22,112	80,468	-	-	151,164
1935-36	44,174	26,916	124,960	850	-	196,900
1936-37	43,356	27,803	173,218	1,661	-	246,038
1937-38	73,203	26,648	217,596	9,216	11,816	338,479
1938-39	82, 750	25,279	275,981	36,503	15,882	436,395
1939-40	147,389	36,740	213,079	42,121	24,382	463,711
1940-41	116,986	24.003	461,110	28,283	22,248	652,600
1941-42	337,033	28,636	308,033	23,617	18,617	715,936
1942-43	384,863	31,772	248,753	34,853	27,356	727,597
1943-44	327,727	39,750	329,608	73,613	7,380	778,088
1944-45	434,604	45,928	215,781	76,767	6,131	779,211
1945-46	436,619	60,185	308,766	85,730	51,392	942,692

Source: EL-Alfy, E.M., The Mineral Resources of Egypt, Cairo, Egypt, 1947

Table 8. The Normal Monthly Mean Discharges of the Nile and its Principal Tributaries in Cubic Metres per Second 1912-37*

Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Mean of Year
Main Nile at Aswan D.S. Reservoir	1140	960	780	730	830	1080	1810	6470	8010	5470	2650	1450	2620
Main Nile at Wadi Halfa	1420	1030	750	590	560	730	1960	7300	8640	5720	2970	1880	2800
River Atbra at Mouth	-	-	-	-	-	40	640	2100	1400	290	70	20	380
Main Nile at Khartoum	1260	910	700	610	690	1110	2710	6390	6850	4430	2390	1660	2480
Blue Nile "	340	220	150	100	170	490	2200	5880	5690	3020	1180	580	1680
White Nile "	910	690	560	520	540	620	570	590	1140	1400	1200	1080	820
White Nile at Malakal	810	640	570	530	590	750	910	1050	1160	1230	1230	1110	880
River Sobat at Hillet Doleib	310	170	110	90	160	340	490	610	690	760	770	630	430
Swamps	490	480	470	450	430	430	430	460	480	490	470	480	460
Bahr El Jebel at Mongalla	740	690	670	710	870	840	910	1030	1040	1010	930	820	860

*Source: Almanac 1939, Egyptian Government Press.

Table 9 Population density in the different divisions of Egypt*

Administrative Div.	Area in sq. miles (approx.)	1947 Census Prelim. Figures Males	Females	Total	Pop. per sq. mi.
Cairo	70	1066852	1033634	2100486	30,007
Alexandria	35	468889	459353	928237	26,521
Canal	40	129227	117543	246770	6,169
Suez	8	56903	51347	108250	13,532
Damietta	1.5	27060	26560	53620	35,746
Western Desert	)	35115	33404	68519	
Southern "	)	15525	16766	32291	
Sinia "	) 180	20231	17023	37254	890
Red Sea Coasts	)	14020	8045	22065	
Total for Governorates	334.5	1833817	1763675	3597492	10.755
Beheira	1,719	596991	645496	1242487	715
Ghabia	2,818	1134323	1204573	2338896	830
Minufia	622	570446	598331	1168777	1,975
Dakahlia	1,023	692051	722233	1414284	1,380
Sharkia	1,933	671335	684027	1355362	700
Kulubia	368	341991	345178	687169	1,870
Total for Lower Egypt	8,483	4007137	4199838	8206975	1,003
Giza	409	411200	411224	822424	2,020
Fayoum	670	327246	344639	671885	1,000
Beni Suef	423	296923	316442	613365	1,480
Minya	782	523204	538213	1061417	1,360
Asyut	812	688889	690986	1379875	1,680
Girga	609	642120	646305	1288425	2,100
Kena	705	552422	553874	1106296	1,570
Aswan	363	132944	152607	285551	790
Total for Upper Egypt	4,773	3574948	3654290	7229238	1,515
Grand Total	13,590.5	9415902	9617803	19033705	1,422

*Source: Egyptian Ministry of Education, Information Sheet No. 1 Washington Bureau, Washington, D. C., 1949.

Table 10. Population by Nationality in Egypt*

Nationality	1907 No.	1907 percent	1917 No.	1917 percent	1927 No.	1927 percent	1937 No.	1937 Percent
Egyptians	11,054,220	98.1	12,544,969	98.4	13,992,264	98.4	15,746,179	98.9
Foreigners	221,139	1.9	205,949	1.6	225,600	1.6	186,515	1.2
Total	11,287,359	100.0	12,750,918	100.0	14,217,864	100.0	15,932,694	100.0
Greeks	62,973	28.0	56,731	28.0	76,264	34.0	68,559	37.0
Italians	34,926	16.0	40,198	19.0	52,462	23.0	47,706	25.0
British	20,653	9.0	24,354	12.0	34,469	15.0	31,523	17.0
French	14,591	7.0	21,270	10.0	24,332	11.0	18,821	10.0
Turks	69,725	32.0	8,471	4.0	9,284	4.0	3,201	2.0
Others	18,271	8.0	54,925	27.0	29,084	13.0	16,705	9.0
Total	221,139	100.0	205,949	100.0	225,600	100.0	186,515	100.0

* Source: Computed from figures taken from Annuaire Statistique de Poche. 1945. op.cit. p.5.
Figures for 1947 are not available.

Table II Marital Status in Egypt 1937*

Status	Male		Female	
	Number	Per-cent	Number	Per-cent
Single	1,249,243	27.4	497,297	10.6
Married	3,105,147	68.3	3,179,371	67.4
Divorced	60,234	1.3	97,134	2.1
Widow & widowers	129,612	2.8	932,321	19.8
Others	10,686	0.2	6,564	0.1
Total	4,554,916	100.0	4,712,687	100.0

*Source: Annuaire Statistique de Poche, op. cit. p.7

Table 12. Birth Rate in Egypt 1901 - 1945*

Year	Population in 1000	Births in 1000	Rate per 1000
1901	10,334	402	39.0
1902	10,492	426	40.4
1903	10,652	434	40.7
1904	10,814	472	43.6
1905	10,979	457	41.6
1906	11,147	482	43.2
1907	11,312	484	42.7
1908	11,453	509	44.4
1909	11,596	483	41.6
1910	11,740	505	43.0
1911	11,887	507	42.6
1912	12,053	508	42.2
1913	12,186	507	41.6
1914	12,338	522	42.3
1915	12,492	520	41.6
1916	12,648	506	40.0
1917	12,795	514	40.1
1918	12,936	503	38.8
1919	13,078	493	37.6
1920	13,222	559	42.2
1921	13,368	559	41.8
1922	13,515	583	43.1
1923	13,663	589	43.1
1924	13,813	605	43.7
1925	13,965	607	43.5
1926	14,119	624	44.2
1927	14,276	627	44.0
1928	14,438	629	43.6
1929	14,602	645	44.2
1930	14,767	671	45.4
1931	14,935	665	44.5
1932	15,104	642	42.5
1933	15,275	668	43.8
1934	15,449	652	42.2
1935	15,624	646	41.3
1936	15,801	698	44.2
1937	15,968	694	43.5
1938	16,253	704	43.5
1939	16,515	697	43.3
1940	16,773	698	41.6
1941	17,030	695	40.8
1942	17,227	658	38.2
1943	17,423	690	39.6
1944	17,626	722	41.0
1945	17,923	788	43.9

*Source: Annuaire Statistique, 1945.

Table 13. Death Rate in Some Selected Countries
1935 - 1939*

Country	Rate
Ile-Maurice	28.6
Egypt	27.6
Chili	23.7
Mexico	23.4
Non Federated Malay States	21.6
Ceylan	21.6 1/
Palestine Moslens	20.9
Rumania	19.6
Puerto-Rico	19.1
Costa-Rica	19.0
Palestine	16.5
England & Wales	12.0
United States	11.0
Union of South Africa	9.8
Canada	9.7
Netherlands	8.7
Hawai	8.3

* Source: League of Nations, Statistical Yearbook. Geneva, 1940-41. Table 6, p. 38.

1/ 1936-39.

Table 14. Death Rate in Egypt 1901 - 1941*

Year	Population in 1000	Deaths in 1000	Rate per 1000
1901	10,334	218	21.1
1902	10,492	272	26.0
1903	10,652	236	22.1
1904	10,814	278	25.7
1905	10,979	263	24.0
1906	11,147	263	23.6
1907	11,312	301	26.6
1908	11,453	283	24.7
1909	11,596	305	26.3
1910	11,740	305	25.9
1911	11,887	325	27.3
1912	12.035	295	24.5
1913	12,186	309	25.3
1914	12,338	333	27.0
1915	12,492	350	28.0
1916	12,648	376	29.7
1917	12,795	376	29.4
1918	12,936	512	39.5
1919	13,078	384	29.3
1920	13,222	370	27.9
1921	13,363	334	25.0
1922	13,515	339	25.1
1923	13,663	352	25.8
1924	13,813	344	24.8
1925	13,965	369	26.4
1926	14,119	377	26.7
1927	14.276	359	25.2
1928	14,438	380	26.3
1929	14,602	403	27.6
1930	14,767	367	24.9
1931	14,935	398	26.6
1932	15,104	431	28.5
1933	15,275	421	27.5
1934	15,449	430	27.8
1935	15,624	412	26.4
1936	15,801	456	28.8
1937	15,968	434	27.2
1938	16,253	434	27.2
1939	16,515	429	26.4
1940	16,773	444	26.5
1941	17,030	441	25.9

*Source: Annuaire Statistique, 1945.

Table 15 Infant Death Rates in Selected Countries *

Country	Year	Rate	Country	Year	Rate
Malta	1942	345	Finland	1942	67
Burma	1939	204	Canada	1942	54
Chile	1942	195	United Kingdom	1942	84
Cyprus	1942	185	United States	1942	40
Egypt	1942	168	Netherlands	1942	40
India	1942	163	Hawaii	1942	39
Costa Rica	1942	157	Australia	1942	39
Colombia	1942	154	Switzerland	1942	38
Ecuador	1942	141	Norway	1939	37
Palestine (Moslems)	1942	140	Sweden	1942	29
Philippine Islands	1942	139	New Zealand(whites)	1942	29

*Source: Smith, T. L. Op. cit. pp. 266-267

Table 16. Expectation of Life in Some Selected Countries*

Country	Years	Sex	Age 0	20	50	70
India	1931	M	26.9	29.6	14.3	6.4
		F	26.6	27.1	14.7	6.7
Egypt	1917-1927	M	31.0	32.9	18.1	9.6
		F	36.0	35.8	19.4	10.3
Brazil Cities	1920	M	35.6	34.1	16.4	7.6
		F	39.7	39.2	20.9	9.2
Costa Rica	1931	M	46.7	37.9	17.5	7.0
		F	40.7	37.9	17.5	7.0
U.S. Negroes	1939-41	M	52.3	39.5	19.1	10.1
		F	55.6	42.0	21.0	11.8
U.S. Whites	1939-41	M	62.8	47.8	22.0	9.4
		F	67.3	51.4	24.7	10.5
France	1928-38	M	54.3	43.3	20.3	8.3
		F	59.0	47.4	23.4	9.6
Germany	1932-34	M	59.9	48.2	22.5	9.1
		F	62.8	49.4	23.9	9.6
Denmark	1936-40	M	63.5	30.3	23.7	9.6
		F	65.8	51.1	24.5	10.0
Netherlands	1931-40	M	65.7	51.0	24.1	9.8
		F	67.2	51.5	24.7	10.2

* League of Nations, Statistical Yearbook. Geneva, 1945. Table 15.

Table 17. Causes of Death in Egypt*

Cause of Death	No. of Deaths	Ratio 1/
1. Diarrhea and enteritis	55,000	1,060.5
2. Senility, old age	15,979	316.9
3. Congenital malformation and debility, premature births and deseases peculiar to the first year of life.	13,552	363.7
4. Bronchitis	12,272	239.1
5. Pneumonia and bronchopneumonia	10,700	208.2
6. Nephritis	4,816	93.7
7. Avitaminosis and blood disease	4,465	86.9
8. Violent and accidental deaths	4,278	83.2
9. Diseases of the heart	4,011	78.0
10. Intracranial lesions of vascular origin	2,919	56.8

* Source: U.S. Public Health Service, Summary of International Vital Statistics, 1937-1944. U.S. Government Printing Office, Washington, 1947.

1/The Ratio is the number of deaths per 100,000 population.

Table 18. Kinds, Amount & Value of the Agricultural Products Imported By Egypt in 1937 and in 1947 *

Kinds	1937		1947	
	Amount in ton	Value in L.E.	Amount in ton	Value in L.E.
Wheat and its products	11,994	164,884	26,241	925,283
Vegetables, Seeds...	44,622	576,113	20,838	1,088,055
Fruits and its Products	36,840	635,830	19,811	1,616,239
Sugar and its Products	56,212	224,717	1,672	193,764
Coffee, Tea, Cocoa and Products	16,068	1,210,992	24,427	5,697,500
Spices	1,423	45,207	1,680	237,573
Oils and Waxes	27,123	708,312	7,640	523,401
Livestock, Meats and Products	26,683	655,006	13,968	953,129
Milk and its Products	4,630	284,968	2,456	475,789
Fish	7,878	189,188	5,598	574,537
Fertilizers	641,828	3,389,974	459,409	5,749,791
Agr. Equipments	781	37,920	733	98,890
Total	856,082	8,123,111	584,473	18,113,951

* Source: Egyptian Ministry of Agricultural, Economic & Agricultural Statistics, Cairo, 1949.

Table 19. The Principal Units of Egyptian Measures

L.E. = One Egyptian pound
P.T. = One Egyptian Paistre
L.E. = 100 P.T. = 1,000 Milliemes
= $2.87 (1949)
One feddan = 1.038 acres
One Kantar = 100 rotls
= 99.04 Lbs. (pounds)
= 44.93 kilograms
One Kantar of unginned cotton = 315 rotls
One Kantar of ginned cotton = 100 rotls
One Ardab = 5.44 bushels
One Ardab of wheat = 150 Kgs.
One Ardab of Maize = 140 Kgs.
One Ardab of Barley = 120 Kgs.
One Metric ten = 2204 Lbs. (pounds)

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