

THE POLICIES AND PRACTICE OF BRITISH COLONIAL
RULE REGARDING AGRICULTURE IN LOWER EGYPT
1882-1922.

BY

YIZENGE ADORN CHONDOKA

A dissertation submitted to the University of
Zambia in partial fulfilment of the requirements
of the degree of Master of Arts in History.

THE UNIVERSITY OF ZAMBIA

LUSAKA

1984

This dissertation represents my own work, and it has not previously been submitted for a degree at this or another University.

Signature *A. Chandrasekhar*
Date .. *31st May 1984*

This dissertation of Yizenge Adorn Chondoka is approved as fulfilling part of the requirements for the award of the degree of Master of Arts in History by the University of Zambia.

Signatures of Examiners:

Date:

1. Judith Butcher 24/4/85

2. W. Butcher 24.4.85

3.

4. Gasper Shumba 18/12/84

To my parents who for some reasons did not acquire western education but fought hard for me to see the corridors of the University.

ABSTRACT

This study examines British policy towards Egyptian farmers in Lower Egypt. It looks at the way the agricultural policy was formulated, implemented and its results over the time period 1882 to 1922 - the time when Britain ruled Egypt. On the whole, the thesis has revealed that expansions in agriculture and markets in Egypt depended on government technical assistance to the fellaheen. The direction of expansions were dictated to a large extent by the demands of the metropolitan industries requiring raw materials such as cotton. Thus with the coming of government technical assistance, the long-established intensive agriculture dependence on the flood irrigation only came to an end. Perennial irrigation was improved and extended to all parts of Lower Egypt making it possible to increase cropland and grow more of the crop, particularly cotton, demanded by the British factory owners.

In this work it is shown how government technical assistance to the fellaheen established the channels for interaction between traditional non-capitalist modes of production and an industrial capitalist mode of production, unfavourably affecting the peasants, whose surplus was externalised to the metropole. Changes which accompanied the transformation of the rural society were radical and far-reaching. Differentiation among the fellaheen occurred, resulting in few of them becoming rich through the acquisition of land and a majority becoming landless and jobless. The landed fellaheen adopted new techniques of farming like the use of crop rotation and the growing of more than one crop per year on the same land. This, on average, increased their agricultural income. Agriculture was therefore more scientific than in the pre-

British era, especially with the use of chemical fertilizers from the turn of the century onwards.

Capital penetration into the rural economy had in the initial stages a negative effect: that of creating indebtedness among the fellaheen. But the government took measures to rescue the heavily indebted farmers from their predicament. The firm incorporation of the fellaheen into the export-oriented economy led to a new relationship between the demand for Egyptian cotton by the textile owners in Britain on one hand, and the production levels of cotton and foodcrops on the other. Thus there was, for economic reasons, more concentration on the production of cotton by the fellaheen than on the production of foodcrops for export, to the extent that food imports of grain commenced at the turn of the century, a feature that was uncommon in the pre-British era. The other far-reaching change was that brought about by the improvements in the perennial irrigation. The quality of life of the people in the countryside improved resulting in the population almost doubling during the forty years of British rule in Egypt. However, not all the rural people benefitted from perennial irrigation. Some peasants' lives improved during this period while other peasants were increasingly marginalized. This had its own consequences of unemployment in the country, and was aggravated by the policy of non-industrialization initiated by Lord Cromer.

ACKNOWLEDGEMENTS

It is a pleasure to acknowledge the services rendered to me by various people and organisations in preparing this dissertation. I am grateful to Dr Mwelwa Musambachime, Head, History Department, University of Zambia, for not only encouraging me to cultivate an interest in North African history, a branch of history I am to specialise in eventually; but also for introducing me to Dr Mohammed Selim, Assistant Professor of Political Science at University of Cairo, who worked tirelessly to secure financial assistance from the Egyptian Research Fund for my research in Cairo. Dr Musambachime constantly liaised with Professor Selim in arranging my departure at a time when I lost hope of ever going to Cairo. It is also because of his personal involvement in clearing a few problems that I was finally able to leave for Egypt. To him I say thank you very much.

I am particularly grateful to Professor Selim for obtaining research funds on my behalf. More important, he arranged my stay in Cairo extremely well. He also warmly accepted me in his family and made me feel at home in Cairo. This was humanism at its best.

The journey to Cairo would not have been possible without the help of Mr Taha, at that time Ambassador at the Foreign Office in Cairo, who authorised the release of the funds for my research. To him I owe warm thanks for his wonderful help.

My sincere thanks go to Dr Abbas, Chairman, History Department, University of Cairo for the assistance rendered to me in Cairo. Although I did not have an opportunity to discuss much academic matters with him because of his trip to Qatar, the friend he introduced me to, Dr Zakaria of Ain Shams University was very friendly and gave valuable

information. I extend my thanks to him too.

I am also thankful to the following for allowing me to use their archives and libraries: members of staff at the American University in Cairo (AUC) library, the Geographical Society library and the Egyptian Historical Society library who even presented me with two of their journals. I extend my great appreciation to the members of staff in the History Department at Ain Shams University for help and information. Sincere thanks go to Dr Nicholas Hopkins, Professor of Anthropology at AUC who gave up valuable time to discuss items related to my dissertation.

The final stage of any research work is to compile a report. This could not have been done without the help and guidance of my Supervisor, Dr. Judy Buttermann, Lecturer, History Department, University of Zambia. To her I extend my sincere thanks for working so graciously and so willingly throughout the many phases of drafts before this final copy. I cannot forget the words of encouragement I got from members of staff in the History Department.

Many thanks go to my wife, Chapasi for her excellent patience and care during my solitary life to complete this work. Finally, there are those friends in Egypt and Zambia too many to list here, that helped in one way or another for this work to reach this stage. To them I say shukran, thank you.

PREFACE

To understand agricultural development and its problems in Egypt one must know one vital fact: that except for a small strip of land bordering the Mediterranean Sea, it does not rain in Egypt. Therefore, agriculture depends wholly on irrigation. This started with flood or basin irrigation from the time of the First Dynasty and progressed into perennial irrigation in the nineteenth century.

The amount of water in the Nile River in Egypt is dictated by a number of factors. These include the duration and intensity of the rainfall, and the water requirements of the countries south of Egypt dependent on the same river for their water requirements. The source of the Blue Nile is lake Tana in Ethiopia while Uganda's Lake Victoria is the source of the White Nile. The two Niles have numerous tributaries and join at Sennar in Sudan before flowing northwards to the Mediterranean Sea. So when the rainfall is less at the sources of the Nile River, people in Egypt will not have sufficient water for irrigation, and vice-versa. Thus, irrigation and ways of conserving water are extremely important in Egypt if agriculture is to take place.

British government policies in Egypt were not only concerned with agriculture. There were policies on the press, education, military activities, industrialization and so on. This study looks at just one of these many areas: British policy on agriculture in the Delta.

Chapter one deals with background to agriculture development before the British occupation of Egypt. It examines agriculture in Egypt, particularly from the First Dynasty to 1882. Chapter two is the

main chapter. It examines the policies of the British in Egypt regarding agriculture in the Delta from 1882 to 1922. The last chapter is a conclusion, looking at the impact and achievements of the British policies on agriculture in Egypt.

The spellings of Egyptian names and certain words have been corrupted from the pure Arabic by the influences of the Persian, Turkish and French reigns to the extent that one name or word can be written in many different ways. For example, "Mohamed Aly" a French spelling, is spelt "Mehmet Ali" by the Turkish authors; the English write "Nasser" while the French spelt it "Nasir", and so on. I have been consistent in the spellings I have used. I have also provided a short glossary.

Statistical appendixes have been slightly modified to suit the period covered by this study. A word of caution: the statistics are generally not reliable. They are only good at showing a general picture or trend. This is true for most statistical data for Egypt before independence.

Lack of Arabic coupled with financial problems preventing the employment of research assistance forced me to avoid field research although I would have liked to interview a representative sample of fellaheen in the Delta. Because of this, I heavily depended on archival research looking at both primary and secondary sources. The American University library in Cairo and the Geography Society's library have excellent documents. Primary sources dating back to the last century were consulted. They included materials on the French invasion of Egypt, Mohammed Ali's reign and the British rule in Egypt. British government reports on Egypt were very valuable,

C O N T E N T S

	Page
ABSTRACT	v
ACKNOWLEDGEMENTS.....	vii
PREFACE	ix
TABLE OF CONTENTS	xii
LIST OF ILLUSTRATIONS	xiii
INTRODUCTION	1
CHAPTER	
1. THE BACKGROUND: AGRICULTURE IN LOWER EGYPT BEFORE 1882	7
2. BRITISH AGRICULTURAL POLICIES IN LOWER EGYPT 1882-1922	30
3. THE IMPACT OF BRITISH POLICIES ON AGRICULTURE IN LOWER EGYPT	59
APPENDIX	67
SELECTED BIBLIOGRAPHY	77
GLOSSARY	81

LIST OF ILLUSTRATIONS

	Page
MAP	
1. LOCATION OF STUDY AREA: LOWER EGYPT	3
2. THE NILE DELTA, SHOWING CULTIVATED LAND BEFORE 1882	19
3. THE NILE VALLEY SHOWING DAM, BARRAGES AND CULTIVATED AREA BY 1922	46

INTRODUCTION

Egypt (Misr) was not the only country where British colonial agricultural policies were applied in the last century. There was India, a country where agriculture was also the main occupation of the people. Most of the British officials who worked in India at that time, in the 1870s, came to work in Egypt from 1882.¹ Thus it was no surprise that the British agricultural policies in India were transferred and used in Egypt with some modifications to suit the Egyptian environment.² It was also Egypt where such policies were improved upon, learning from their mistakes in India. The agricultural policy-makers in Egypt looked at the Egyptian conditions in the light of British imperial experience in India. The idea was to have a non-indebted peasantry which could feed itself and could be taxed, thus providing revenue directly to the state.

Lord Cromer, the first British agent and consul-general in Egypt had worked in India prior to his post in Cairo. While in India, he saw how British colonial rule with its agricultural policies could not assist the cultivators to develop into a stable and strong group of farmers. Instead, the British agricultural policies in India produced an impoverished, indebted and disgruntled peasantry. It became a big threat to the British rule in India.

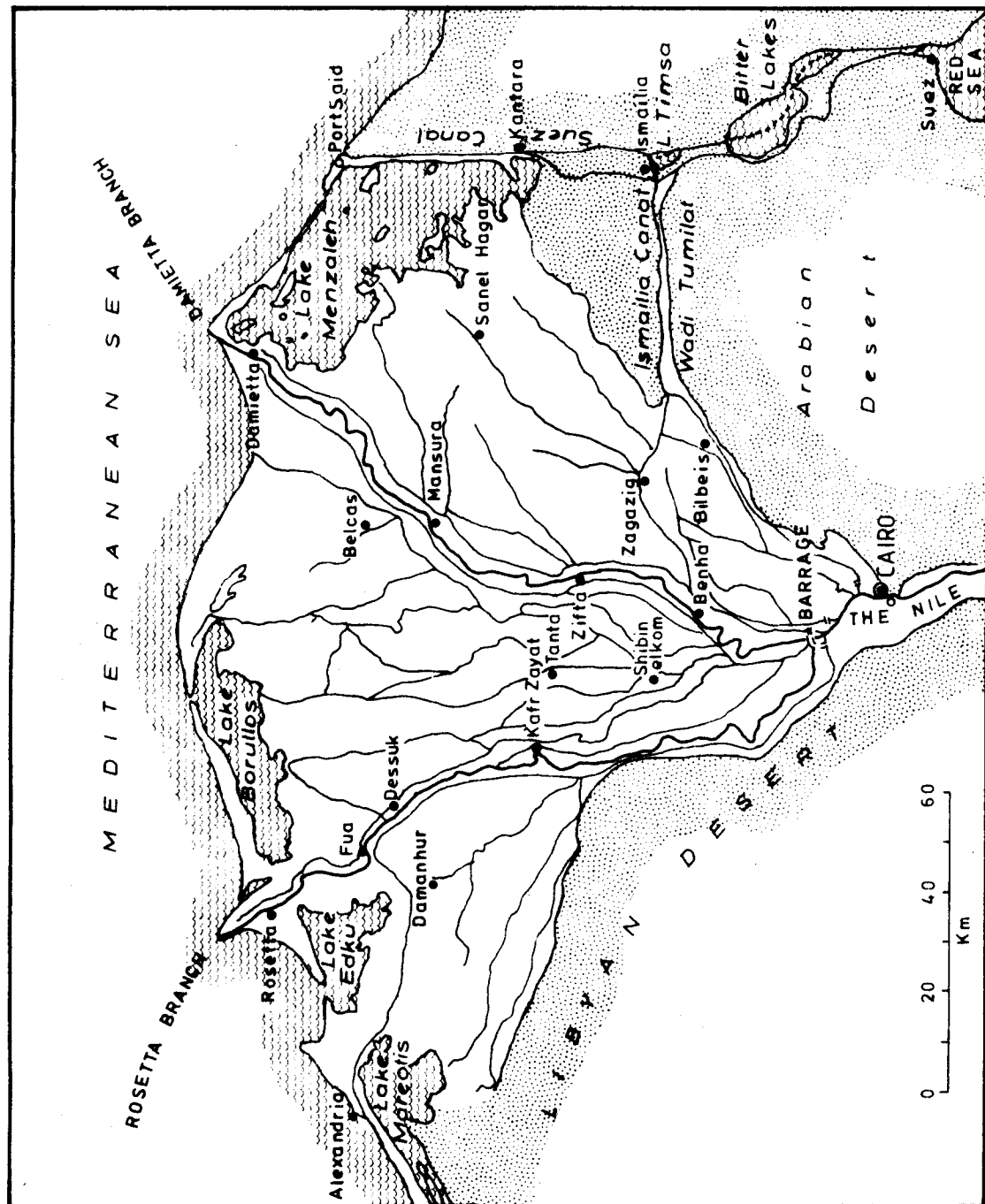
Cromer, with his policy of agricultural reform was determined to avoid a repetition in Egypt of what had happened in India. To achieve this, his government in Egypt had a more positive role in the development of agriculture with the object of increasing a general level of prosperity. Sound financial management was emphasized as a key to regeneration of Egypt, and a way of avoiding a second bankruptcy.

Capital raised internally or from abroad was applied in productive works such as irrigation and construction works. The creation of infrastructure attracted commercial businesses and improved foreign and domestic trade. Reduction of land tax and introduction of social legislation in the country relieved some of the burdens imposed on the rural population, the backbone of agriculture in Egypt. The government began from 1895 to lend small sums of money to the fellahen in the Delta to pay for their heavy debts and buy land and farm inputs to improve agriculture, consequently improving their agricultural incomes. All these measures were initiated by Cromer and created, in the long run, a contented peasantry that gave little resistance to British occupation in Egypt.

There are two theses in this discussion. First, that agriculture and market expansion in Egypt depended on government technical assistance. Agriculture, market expansion and government technical assistance were in turn controlled by the demands of the metropole industries requiring cotton. Secondly, that government technical assistance led to an interaction between traditional and capitalist modes of production, initiating a process of differentiation among the peasants, generally improving the economic condition of most of them.³ Changes, resulting from the transformation of the rural society were radical and far-reaching.

This work makes two contributions to the understanding of the economic history of Egypt. First, the dissertation shows that the British government developed only those sectors of the Egyptian economy that facilitated the cultivation, transportation and marketing of the raw material, cotton which was in great demand in Europe. The rest of the economy was more or less undeveloped, especially the industrial sector. Thus this pattern demonstrates one of the classic conditions of underdevelopment.⁴ It also shows how Europeans, particularly Britain,

MAP 1. LOCATION OF STUDY AREA: LOWER EGYPT.



Source: R. H. Brown, The Delta Barrage of lower Egypt, (National printing Department: Cairo, 1902.) p. iv.

favoured an unarticulated capitalist economy dependent on cotton-growing in Egypt for their own benefit, appropriating most of the surplus generated by the fellaheen. Nothing else could be expected: after all, that is the essence of colonialism. The money extracted from Egypt was used to develop Europe, especially Britain leaving behind a poor Egypt fighting to survive. In short, this work focuses on one aspect of the general underdevelopment of Egypt. Secondly, this work will reveal the far-reaching mixed effects the British policies had on the Nile Valley fellaheen.

In assessing the impact of the policies on farming, one would assert that there was a relatively higher level of agricultural development and a considerable higher standard of living resulting from comparatively increased agricultural incomes. The fellaheen had learned and adopted the modern methods of farming. The main weakness of the British agricultural policy in Egypt was that it did not use capital from agriculture to develop an articulated economy in the country.

It must be remembered that Egypt is a country of great antiquity in the world. It is here where early river civilization started in Africa using the waters of the Nile River. Its agriculture is also of great antiquity. With a population of over forty-four million people, Egypt covers an area of over one million square kilometres.⁵ The country is divided into three geographical regions, namely, the Upper Egypt, Middle Egypt and the Lower Egypt, commonly known as the Delta. Lower Egypt, which is the main concern of this dissertation, extends from Cairo northwards up to the Mediterranean Sea. It is a funnel-shaped area with Alexandria and Rosetta as seaports on the west and Damietta and Port Said as seaports on the east.

Over half of Egypt's population lives in Lower Egypt, where the density of population reaches 580 persons per square kilometre, by far surpassing the average national population density of 45 persons per square kilometre.⁶ About 36,000 square kilometres of the Nile valley delta and oases are settled and cultivated.⁷ This is about $3\frac{1}{2}$ per cent of the total territorial area of Egypt.⁸ Of this land, two-thirds lies in the Delta.⁹ The soils in the Delta are made up of river sediments hence it is one of the most agriculturally rich areas of the world. It is in this part where agriculture is concentrated in Egypt.

CHAPTER ONE

THE BACKGROUND: AGRICULTURE IN LOWER EGYPT BEFORE 1882

A quick survey of the history of agriculture in Egypt before 1882 reveals three major epochs. The first one is the epoch that ended around 1800. This can be conveniently sub-divided into two parts, namely, the ancient agriculture that flourished before the country was taken over by a succession of different foreign powers; and the time when the country was under foreign domination, which slightly changed the ancient system of agriculture.

The second epoch began in 1805 and ended in 1849. This was the era of a very memorable and strong Egyptian leader, Mohammed Ali, who laid down the foundation for modern agriculture in Egypt. Lastly, the period from 1850 to 1882 is a portion of time characterized by unstable governments of short duration and strong links with European countries, eventually leading to the European takeover of the country.

Agriculture and its Organisation before 1800

In principle, the basic irrigation and agriculture systems that began in Egypt at the time of the First Dynastry about 3100 BC had remained unchanged up to the end of the eighteenth century. What had gradually and progressively changed were the organisation and technology used in irrigation and agriculture.

Initially, in ancient Egypt, flood or basin irrigation was the only important method of growing crops. The floods came in August and caused the Nile River to swell and overflow its banks. The people who lived near the Nile gradually learned how to control and use the floods for growing crops. To achieve this, they made banks with sluices along the river. They also made a series of transversal banks between

the main banks along the Nile and the edge of the bordering desert.

When floods arrived, water was let through the sluices into the basin compartments, where it remained standing for forty to sixty days. This was the time when silt was dropped to the ground. When the floods began receding in October and November, water in the compartments was drained leaving behind seedbeds of silt ready for planting without further preparation. Winter crops (Chetwi) were planted in November and harvested in March and April. The most important were wheat, barley and durra.¹

Flood irrigation was advantageous for a number of reasons. Annually, land was left fallow for four to five months making it more productive in the following growing season. Farmers found ready-made seedbeds in the well-drained basin compartments. It was not necessary to apply artificial fertilizers because the blanket of silt deposited by the floodwater was fertile enough to make crops grow abundantly. This system avoided waterlogging in the basins as the receding floods drained the fields. It was also simple to apply and proved to have produced higher average yields per crop than the later perennial irrigation.²

However, irrigation and agriculture in ancient Egypt as in subsequent centuries, depended, among other things, on good organisation. This in turn depended on the type of government in existence. Thus, chaotic governments failed to organise people to irrigate the land properly, resulting in less food in the country; while well-organised governments tended to induce people to work on the canals, irrigate more land and grow more crops, and have surplus for export. Such dependence on government was noted by Napoleon as late as 1798 when

he observed that "..... in no other country does the prosperity and welfare of the inhabitants depend so directly upon the government as in Egypt."³

During most of the the time of Dynastic government in Egypt, there was a strong centralised government. In theory, land was the property of the government. The pharaoh or ruler was the owner of all the land in the country. The cultivator had no right in the land itself but in the crops he grew from it, provided he met the demands of the tax-collector. Taxes were paid in kind, mostly using the crops farmers grew. The central government organised people to produce food on which it depended for its taxation and for exports to neighbouring countries.

It is on record that flood irrigation reached a very high level of development in ancient Egypt and the country produced "crops that were the admiration and envy of travellers from all nations."⁴

Biblical accounts and early inscriptions show that Egypt was a land of plenty and one to which her famine-stricken neighbours frequently turned for sustenance.⁵ With the availability of these two crucial qualities, namely, abundance of food and good organisation, it is no surprise that ancient Egyptians built pyramids. Such projects required inexhaustible amount of food to feed the hundreds of thousands of workers involved.

Unfortunately, the farmers who produced food did not enjoy the fruits of their toil. Through taxation, cultivators gave most of their produce to the landowners and the state.⁶ The small share that remained sometimes could be bartered for other items in small markets in towns. Although hunger was not common in ancient Egypt, the farmers who worked the land could have worked harder and become more

secure if they had land rights and were less exploited by the landlords, a practice that was inherited by successive governments such as the Roman, Mamlukes and Turkish regimes, although it varied considerably.⁷

Beginning in the ninth century BC, successive invasions of ancient Egypt by foreign armies of Assyrian, Persians and Greeks adversely affected its agricultural prosperity. But in the first century AD, Egypt came under the Roman Empire. The industrious Romans improved the decaying agriculture, turning the country into "the richest agricultural province of the Roman Empire and the granary of Rome /and/ cheap Egyptian wheat imported into Rome led to the decline of cereal cultivation in Italy."⁸

When Egypt was lost by the Byzantine Roman Empire in the seventh century AD (AD 639) agriculture declined and irrigation was neglected by some of the subsequent conquerors and remained like that up to the time of the Abbasids. For two centuries, the Abbasids proved innovative and industrious in agriculture. But their power declined in 950 AD. They were succeeded by the Fatimids from 969 to 1171 AD. During this time agriculture did not improve. It remained below the level of the Abbasids period. The same was true for the Ayyubids period that ended in 1250 AD. They were overrun by the corrupt Mamlukes who though industrious initially, concentrated more on collecting taxes than attending to the agricultural problems of the country.⁹ They were defeated by equally corrupt Ottoman Turks in 1517, putting the country in an even weaker position agriculturally. As a consequence many people in the country faced great poverty, hunger and famines for a long time, ultimately reducing its population drastically.¹⁰

Throughout the Turkish period, agricultural development was very poor. The government was too weak and corrupt to mobilise and effectively organise the people to work in agricultural projects. Its system was full of loopholes and very exploitative.

Under its system, the country districts were broken into villages. Each village had its own cultivated land (Kharadj) which was distributed amongst the farmers by the village Sheikh (headman). The sheikh was also responsible for collection and payment of land tax (Miri) from the village fellaheen (peasants) to the Mamluke bey (Moultezim), a Turkish official below the rank of a provincial ruler.¹¹ He was also the village spokesman. For his services he was given tax-free land and he coerced villagers to cultivate his fields.

The moultezim was the overall boss of specific villages in a district. He collected the land tax from the sheikhs and handed it to the government. He had more privileges than the sheikh. Thus, the villagers had tough times, being coerced to work for sheikh and moultezim before working in their own fields annually. Besides this burden they were under obligation to offer support for boarding and lodging to the priest (Imam), the barber, the carpenter and the Coptic scribes in their villages.

Flood irrigation was still the main method of growing crops. After the harvest, the fellaheen in each village collectively paid land tax to the sheikh who handed it over to the moultezim who finally handed it to the government. Such land taxes were paid mostly in crops as money was not common in the rural areas of Egypt where village farmers may not have had much access to money until after 1800.¹² But some relatively rich farmers, who owned large estates paid in cash.

The loopholes in this system allowed a high level of exploitation of cultivators by the government and the rich. First, the sheikh could overtax the illiterate cultivators and pocket some miri for himself. Secondly, after paying what was due to the government, the moult ezim could demand taxes at any time from the villages through his sheikhs, for his own enrichment. The cultivator was also defrauded through false measurements of his land, false weights for his crops and other numerous extra impositions that ultimately made him work for nothing and barely subsist. The situation resulted in periodic culminations of severe discontents among the fellaheen and accounted for rebellions and desertions of their lands and recurrent brigandage. The country districts were therefore very unsafe to traders, visitors and travellers, especially during the Mamluke and Turkish periods up to 1800.

Since not all the wealth from taxes reached the government coffers, it was very difficult for the poor and chaotic government to improve agriculture in the country. As irrigation and canal systems were neglected, obtaining water for crops became a big problem for cultivators. Hence, cropland was reduced and this in turn reduced annual land taxes - the main sources for government revenue; and this put the government in an even worse position. This state of affairs went on for four centuries of Turkish rule, an epoch when Egypt was completely cut off from Western Europe.¹³ The French broke this unsplendid isolation when they invaded the country at the end of the eighteenth century.

"The main objective was to destroy the British control of India to drive the English from all their eastern possessions and to establish French control over the Red Sea. To turn Egypt into a market for French products and protect French merchants under Mamluke oppression."¹⁴

Agriculture During the Reign of Mohammed Ali, 1805 to 1849

Mohammed Ali, a captain in the Turkish army, fought his way to power and in 1805, after a period of unsettled rule in the country became the Pasha, a provincial ruler in the Ottoman Empire. With him came a number of changes which revolutionised Egypt, transforming it into a modern state. This was achieved partially with French aid. Mohammed Ali was openly pro-French until his death in August 1849.

A priority of Mohammed Ali was to improve agriculture in the country, especially in the Delta, and he began this work; first, by renovating the existing system. This involved repairing and strengthening the banks around the basins and re-opening the old neglected canals. In addition to this, and with the help of the French irrigation engineers, he introduced perennial irrigation for the first time in Egypt.

Basically, perennial irrigation means artificial methods of supplying water for growing crops throughout the year. In Egypt this involved the provision of a system of storage reservoirs to supply water for irrigation in summer while the natural flow of the floodwater was used in the winter season. Thus from 1816 when canal-fed perennial irrigation began, the Delta had an abundant supply of water for growing crops throughout the year as opposed to the pre-Mohammed Ali period when water was available only in winter during the annual Nile floods.¹⁵ The consequences were far-reaching and had revolutionary effects on the life of the people in the Delta, especially for the fellaheen.

After a general cadastral survey in 1813 commissioned by Mohammed Ali, each cultivator was allowed to have an average three to five feddans (area of agricultural land) and this was recorded in the central register of the government.¹⁶ Following this revolution in land tenure, Ali abolished tax-farming. Peasants had to pay all taxes individually and directly to the government. Such a change increased both state

funds and government personnel tremendously. Also, it made fellaheen spend more time in their own fields. They did not work for the sheikh or moultezim anymore.¹⁷ However, they still worked on obligatory government projects such as canal clearing, and like in the past, had no full ownership or inheritance over land, but only over crops from the land. This move was a big threat to the economic power of the landlords. The new system in land tenure led to a marked social differentiation in the country districts among the fellaheen. A number of them became landed fellaheen. Others were forced by circumstances to be tenant fellaheen. The majority consisted of the landless fellaheen who formed brigands or could be utilised as seasonal labourers on farms while others went to urban centres where some of them were employed in the factories.

The farmers were from this time able to grow and harvest from the same land more than once per year: during winter using the natural flow of the Nile floods and during summer, when water in the storage reservoirs was released for irrigation. Among the principal summer crops (Sefi) grown in Egypt from the reign of Ali were, rice, maize saffron, sugar cane, indigo and cotton.¹⁸ Of these crops, cotton, which was initiated in 1821, became by far the most important single export crop in the country, the status it still enjoyed by the time the British granted independence to Egypt in 1922.¹⁹

Land under cultivation increased steadily, corresponding to the increasing number of completed irrigation works, and the land that was reclaimed (Abadie land) through the personal efforts of the pasha. Thus in 1798, 3,217 feddans of cultivable area were recorded by the French. By 1813, 3,054,710 feddans made up the cultivated area. It

increased to 3,500,000 feddans in 1835, rising to 3,856,266 feddans in 1840 and reaching 4,160,169 feddans three years after Mohammed Ali's death in 1849.²⁰ These figures represent the whole country, not only the Delta, although it is quite safe to assume that over three-quarters of this land was that of the rich Delta on which the country's agriculture has always heavily depended.

Summer crops, particularly cotton, were very profitable to the government as exports. For this reason it ordered fellaheen to favour growing them and give them priority over other crops. But because of the cost of cultivation due to the expense of watering the land during summer, most summer crops were grown by rich beys and notables.²¹ The ordinary people concentrated on winter crops, cultivated both for sale and home consumption. But some fellaheen grew cotton and became rich, resulting in the emergence of social differentiation not seen before in Egypt. Due to the importance of summer crops, Mohammed Ali effected agricultural improvements in the Delta to enhance their production. For instance, in 1825 he built barrages and regulators across the irrigation canals in the Delta. Later he raised the Nile banks to avoid a repetition of flood disasters during the times when the Nile was in flood. In 1834 he attempted to build the Delta barrage which was abandoned as unsuccessful in 1836. He was also known to be more

"like a farmer visiting his estates than a ruler touring his kingdom" and that he ruled "...with a will of iron" forcing peasants to grow cotton. "He even sent soldiers and sailors into the fields to watch over the peasants and see that they worked..." or else "they will be buried in a common trench."²²

Initially, many peasants were not making profits from the cultivation of cotton or other summer crops, so they had to be forced to grow them.

However, from 1841, after the abolition of the state monopoly system, they adjusted and were able to make profits and grow the summer crops willingly.

Thus one consequence of perennial irrigation was that production for the market increased relative to subsistence agriculture. Transactions were by the fourth decade since the turn of the century increasingly in money, replacing the old barter system. The export-economy depended on a specialised crop - cotton, at the expense of the rest of the economy. Cotton exports shot up from 944 kantars (units of weight) in 1821 to 228,078 kantars in 1824.²³ By 1834, cotton replaced the traditional crop, wheat, as the principal export crop from Egypt to Europe, especially to Britain. Prices per kantar were generally very encouraging, but at times prices fluctuated and such fluctuations were met with equal reductions in cotton productions.²⁴

There was an increasing demand for the high-quality long-staple Egyptian cotton in England, especially from Lancashire spinning factories whose owners offered good prices. Such ready markets in Europe increased the pasha's revenues in the country. This was mainly because of his monopoly system of marketing. In this system the government bought agricultural products from farmers at very low prices, but presumably encouraging enough to the cultivators, and sold them for export at very high prices.²⁵

This state monopoly system was also extended to Egyptian manufacturing industries. From 1816 onwards, artisans could only obtain raw materials from government warehouses and finished products could only be delivered to the government at the fixed price imposed by the government. Through this system the government raised huge sums of

money. The pasha used it on his ambitious private and national projects. For example, he improved the transport and communication system to facilitate foreign and domestic trade. A network of roads was constructed in the Delta. Ships for the ever-expanding navy and for the export trade were built as well as imported. Canals were dug for transporting goods to the sea ports of Alexandria, Rosetta and Damietta. A good example was the El Mahmudia canal connecting Alexandria to the Nile. The canal was a major outlet for exports from 1819 onwards. All these projects added up to great achievements by Mohammed Ali if we take into consideration that in 1798, "the carriage of Napoleon is said to have been the first wheeled vehicle in modern Egypt."²⁶ At the same time he brought peace to the country districts making traders move freely with their goods to the markets. This had not been the case during the period of Mamluke or Turkish rule.

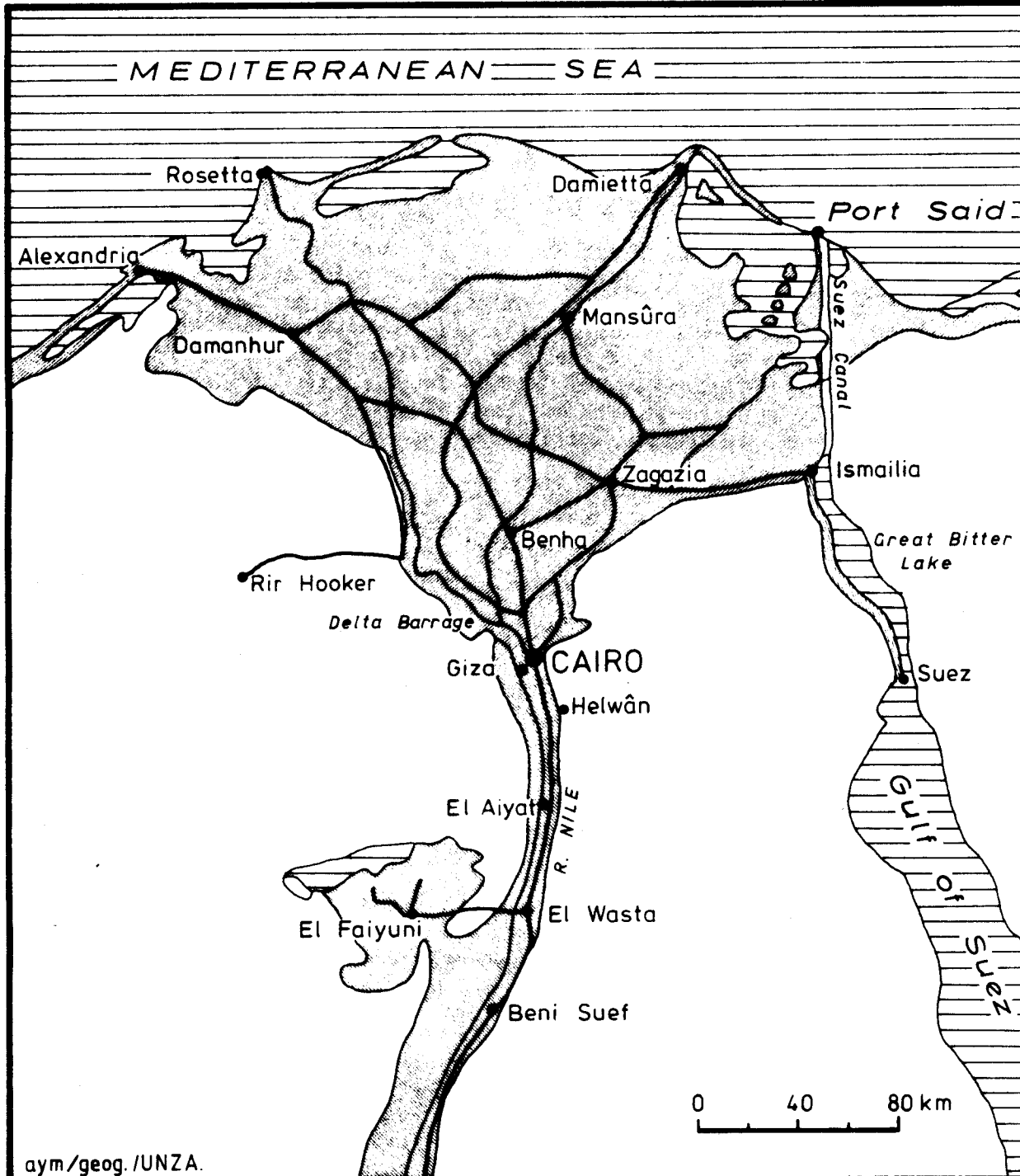
The pasha authorised many European merchants to acquire huge estates in Lower Egypt. They were also lending Delta fellaheen money to buy seeds, farm implements and for other expenses. The Greeks were particularly prominent in the business of loaning money to farmers. Such activities enabled foreign capital to enter Egyptian agriculture and other sectors of the economy, by means of mortgages and loans.²⁷ It is this very foreign capital that later forced Egypt to be at the mercy of European powers which ultimately used the country's financial problems as a pretext for taking over the government.

It is perhaps true to assert that Mohammed Ali's military adventurism in the late 1830s created the conditions for his own downfall. His military campaigns took thousands of cultivators from their occupation to the detriment of Egyptian prosperity. He had

200,000 fellaheen in the army, 200,000 in the navy and over 300,000 in state factories, directly or indirectly supporting the army and navy. In addition to this, he required 355,000 corvée workers annually to clear the silted canals. Although the population during his period increased from 2,460,200 in 1800 to 2,536,400 in 1821 and rose to 4,476,440 in 1847, mainly as a result of more food due to summer irrigation, it was not sufficient to support both unproductive military ventures and productive agricultural and industrial undertakings. The military adventures consisted of campaigns into Sudan to the south, and into Arabia and Greece.²⁸

Mohammed Ali faced a chain of interrelated problems because of his military adventurism. The number of cultivators was considerably reduced, and in turn there was a marked reduction in agricultural produce and consequently taxes for his monopolistic government. He unsuccessfully attempted to use slave labour from the Sudan. In his frantic efforts to raise more money for his campaigns he increased the tax burden on the remaining cultivators. This had a negative effect on production. Many fellaheen resorted to their traditional strategy of fleeing and forfeiting ownership of their lands.²⁹ To arrest this devastating situation, he lured cultivators back by granting land-ownership rights, decreed in 1836. But this move did not produce the expected results. It was made worse by a diminishing number of corvée workers, resulting in fewer canals being cleared and finally reducing the land for cultivation. The major and final blow came in 1838: the Anglo-Turkish Commercial Treaty was signed in London allowing foreign traders to buy and sell anywhere within the Ottoman Empire including Egypt.³⁰ This treaty was a big setback to Mohammed Ali's monopoly

MAP 2: THE NILE DELTA, SHOWING CULTIVATED LAND BEFORE 188



SOURCE: A. E. Crouchley, The Economic Development of Modern Egypt, (Longmans: London, 1938), p. 1

system and his industries which lost their protected position and faced stiff competition from European commercial firms. As expected, the industries crumbled from 1841 onwards, leading to Mohammed Ali's downfall. It was also in the same year that the European takeover began. European merchants entered the country freely and began establishing various types of businesses. They also acquired large estates.

In her summary whose sentiments I share, Rivlin asserted that,

"although he /Mohammed Ali/ changed the Egyptian economy from subsistence to cash economy by the investment of capital in the development of agriculture, the financial benefits gained thereby accrued primarily to the Pasha himself far from having an agricultural policy per se, he merely utilized the agricultural wealth of Egypt for the purposes of personal aggrandizement and the attainment of a position of greater power and independence for himselfwithin the Ottoman Empire".³¹

Agriculture in the era of European Takeover: 1850 to 1882

Two features marked the period between 1850 and 1882. First, there was an uninterrupted, accelerated tempo of European business entering Egypt, which ultimately was responsible for the complete European takeover of the country. Secondly, it was to a great extent a period of confusion in the country. Confusion arose from a number of factors. While Mohammed Ali ruled continuously from 1805 to 1849, the period from 1850 to 1882 saw a succession of five rulers. They differed in their agricultural policies. The policies of the first ruler after Ali contradicted not only those of Ali before him but also those of the other two who followed after him. The country was helplessly plunged into bankruptcy. There was also an important revolt, the Arabi Revolt. However, neither factor upset the tempo of agricultural development severely. They were only temporary setbacks. In fact each ruler was

conscious of the prime importance of agriculture to his government and encouraged it in one way or another.

In July 1848 before Mohammed Ali died, Ibrahim was invested with the pashalik.³² But unfortunately he died the same year in November. Abbas Hilmi I tookover as pasha. He was, right from the outset, the complete opposite of Ali in terms of his policies on agriculture. He reduced corvée workers in the country, which resulted in some canals being silted in or abandoned and some irrigation works being neglected or demolished. Positively, it also led to more fellaheen spending undivided efforts and time in their own fields. But the silted canals decreased the cultivated area. The other thing he did that made him unpopular was the reintroduction of the monopoly marketing system. It was unsuccessful. All these changes were signs of a retrogressive ruler. However, he achieved one important thing during his period. He built a railway line to facilitate foreign trade between the port of Alexandria and Cairo in 1853. It was constructed by the British railway engineer George Stevenson, and was the first in Africa.

Cotton was still the most important export and government revenue depended on it. During Abba's time, many purchasing agents from European commercial houses became concentrated at Alexandria. This was one way of fulfilling his policy of closer links with Europe.

Abbas died mysteriously in 1854 and was succeeded by Mohammed Ali's son, Mohammed Said. He followed the policies of his late father. In 1858 he passed a land law giving farmers more rights in their private ownership of land. The law allowed full property ownership of land according to Muslim law of inheritance.³³ Whoever received or acquired land could deal with it in any way he wanted and could claim

compensation if it was requisitioned for public use. The law encouraged farmers to produce more, and hence increased the cultivated areas in the country.

Another impetus for growing more crops, especially cotton, was the 1861 American Civil War. It adversely affected cotton cultivation in the American South, an area which was the major source of cotton for the European textile industry. The war resulted in a high demand and high prices for cotton in the European textile industry. The owners of the factories looked for their supply of cotton towards India and Egypt. Said benefitted from this cotton boom. While prices increased four-fold between 1860 and 1864, cotton production increased five-fold from 1861 to 1866.³⁴

In order to enhance the now-prospering agriculture Said improved communication and transport, by extending the railway to the Suez Canal from Cairo. He also abolished the monopolies restored by Abbas and introduced free trade in the country by doing away with many customs barriers. It was also during his reign that a Greek established a Bank of Egypt in 1855. Said died in 1863.

Ismail succeeded Said. Taking advantage of the rising cotton prices due to the continuing American Civil War, Ismail increased cultivated area by lengthening canals to cover many parts of the Delta.³⁵ He spent over twelve million Egyptian pounds (hereafter called pounds) on 13,440 kilometres of canal extension, and increased the railway line by 1,456 kilometres which cost over £13,000,000. He built 430 bridges at a cost of over £2,000,000. He also established sixty-four sugar mills costing £6,000,000 increasing sugar production in the country.³⁶ He did this to diversify the cotton-dominated economy.

Like his predecessor he gradually reduced links with his imperial overlord in Turkey, and increased contacts with Europe. It was this link with Europe that made him borrow large sums of money from European banks and mismanage it. The links were so strong that he proudly commented that "Egypt is no longer in Africa, it is in Europe."³⁷ It was also during this period that the great Suez canal was officially opened in 1869, to his satisfaction. He was the first pasha to take the title of Khedive (prince) in 1867. But later in 1879, he was deposed, mainly because of his mismanagement of the country's financial affairs.

Ismail's frequent unprofitable borrowing and spending raised the country's public debt. The country was known to be bankrupt as early as 1876 and European banks stopped lending money to Ismail. As a result he experienced a chain of financially-related problems. Life was also becoming difficult for the fellaheen. Attempting to contain a financial catastrophe, he tried to raise the already rocketing taxes in the country. The outcome was negative, especially among the fellaheen whose life was now almost impossible. Thousands ran away again as they had done in the late 1830s during the time of Mohammed Ali's high taxes.

Having no confidence in Ismail's financial control over his country and the loans he obtained from Europe, British and French investors conspired to replace him. The result was his dethronement. A "Dual Control" comprising Britain and France was now in force. This marked a total European takeover of Egypt. Tewfik, the khedive who replaced Ismail in 1879 was unquestionably the puppet of the British and French investors in Egypt. In 1880, he was forced to pass a law allowing full private ownership of land, in accordance with the system

of land tenure in force in Europe. The move had positive effects, by increasing the land under cultivation. The Arabi Revolt in 1881 threatened Tewfik's rule. But he was rescued by the British who on 14th September 1882 bombarded Alexandria, defeating the token resistance of Arabi's army, making British occupation of Egypt a reality.

Richmond has asserted that during the period in question - 1850 to 1882 - cotton pulled Egypt into the developing world economy, in which Europe provided industrial and financial support. Foreign trade brought Egypt's productive capacity under European financial control. This also took place in other parts of the Turkish Empire, Persia and China. But, "due to lack of political autonomy it was only in Egypt that indebtedness to Europe led to a complete political takeover."³⁸ However, there were obviously other reasons for this takeover. Some of them are discussed in the next chapter.

This chapter has summed up the agricultural situation and the situation of rural dwellers in general before 1882. It has outlined the agricultural history of Egypt before 1882, giving vital background material to use in order to understand the British agricultural policies in Egypt between 1882 and 1922. The brief survey has shown that the period before 1882 witnessed a number of changes in the agricultural development in Egypt. This was the period of gradual transformation from seasonal flood irrigation to perennial irrigation which began for the first time in Egypt in 1821. It was also the time when the land tenure system was changed, for the benefit of the government and more important to the advantage of the fellaheen as from 1813 after the cadastral survey. More land came under cultivation than ever before due to introduction of perennial irrigation, and the process of offering

small plots of land for sale to the fellaheen. As a result crop production was also increasing.

The situation in the rural areas changed, especially between 1805 and 1882. First, the rural dwellers, particularly the fellaheen were able to grow more than one crop per year from the same land due to perennial irrigation. Secondly, the fellaheen were increasingly producing for the market and the transactions were now in money rather than in kind. Some of them became rich. Thirdly, some of the rural cultivators were also beginning to adopt scientific methods of farming, thereby increasing their produce. The fellaheen greatly benefitted from these changes, particularly from the abolition of tax-farming and the introduction of the new land tenure system. Exploitation of the fellaheen by the sheikhs, moultézims and landlords was minimised. This was a big temporary setback to the large estate owners. But under Mohammed Ali it seems the state, the central government, took over the role which had been occupied by the large estate owners - to some degree. The central state exploited the fellaheen less harshly than large estate owners. However, from 1841 to 1882 local and foreign estate owners acquired more land making them richer.

The impact of these changes in the rural areas began to appear. A process of differentiation emerged amongst the producers in the country sides. Some landed fellaheen were becoming rich. This process was continued and enhanced by the British from 1882. The system of private ownership of land, originally started by Mohammed Ali was by 1882 completed, greatly boosting crop production in the country. However many landless fellaheen, a product of the social differentiation amongst the rural dwellers, began drifting to the urban centres. This was the situation at the time of British occupation of Egypt in 1882.

Chapter One- Notes

1. Durra is an Arabic name for maize. But the Ministry of Agriculture in Egypt, distinguishes Durra shamiya or Syrian maize /maize/ from Durra e weiga, the ancient millet that I am concerned with here. Vegetables, onions, peas and beans were also grown at this time.
2. A. E. Crouchley, 'A century of Economic Development 1837-1937. (A study in population and production in Egypt)', L'Egypte Contemporaine vol. xxx Nos 182-183 (Fev-Mars 1939), 143. Also see, The effect of water on the cultivation of cotton. Experiments made during 1912. Ministry of Finance, Egypt. Survey Department paper Number 31, 22-23.
3. A. E. Crouchley, The Economic Development of Modern Egypt, (London: Longmans, 1938), 53.
4. Crouchley, Economic Development, 6
5. Deette Rolfe, 'Environmental Influences in the Agriculture of Ancient Egypt', The American Journal of Semetic Languages and Literatures, vol. xxxiii Numbers 3 (April 1917), 158-164. Also see the Biblical accounts in Genesis 12 vs 10; 26 vs 1-2; 41 vs 57 and 42 vs 1-3.
6. No figures are available for the proportion of the crops taken, hence the use of the word "most".
7. P. M. Holt, "Egypt, the Funj and Durfur," Richard Gray (ed), The Cambridge History of Africa. Volume 4. from c. 1600 to c. 1790, (Cambridge: Cambridge University Press, 1975), 36-37. Examples of exploitation during the Mamluke period.
8. Crouchley, Economic Development, 8
9. B. F. Weiss and A. H. Green, A Survey of Arab History, (Cairo: American University in Cairo, 1980), 161-366; H. Raid, 'Egypt in the hellenistic era', G. Mokhtar (ed), UNESCO General History of Africa II. Ancient Civilizations of Africa, (Berkeley California: UNESCO, University of California Press, 1981).
10. The population figures are as follows: Ancient Egypt, 10-12 million; Roman times, 10 million; Arab time, 14 million; after four centuries of Turkish domination, less than 2½ million. Figures differ slightly from one book to another. These are from Crouchley, Economic Development, 14-15. But see also Justin A. McCarthy, 'Nineteenth-century Egyptian population', Elie Kedourie (ed), The Middle Eastern Economy. Studies in Economics and Economic History, (London: Frank Cass, 1977), 1-39; H. H. Ayrout, The Fellaheen, (Cairo: R. Schindler, 1945), 28 and 167; G-Baer, Studies in the Social History of Modern Egypt, (Chicago and London: The University of Chicago Press, 1969), 134-136.

11. Egypt was ruled from Istanbul in Turkey. The sultan in Istanbul appointed pashas to rule Egypt. But to limit the powers of the venal and corrupt pashas, the sultan appointed Mamlukes to the executive and military councils. But they were equally corrupt. For details on the role of Mamlukes in land tax, see G. Baer, A History of Land ownership in Modern Egypt 1800-1950, (London: Oxford University Press, 1962), 1-2.
12. The invading French army used money (currency) to pay wages and salaries for its soldiers in Egypt. Taxes, up to Mohammed Ali's government were paid mostly in kind (crops, metals, precious stones etc.), especially in Upper Egypt where hard cash was not used in any transactions.
13. Few exports of wheat, onions and barley from Egypt at this time went to the neighbouring areas such as the Sudan, Arabia or Turkey. More important as markets for export of produce were the mediterranean countries of Southern Europe. See Charles Issawi, Egypt: An Economic and Social Analysis, (London: Oxford University Press, 1947), 18-22.
14. J.C.B. Richmond, Egypt 1798-1952. Her Advance Towards a Modern Identity, (London: Methuen and Co., 1977), 16. The reasons for the British occupation of Egypt are given in detail in, G. N. Uzoigwe, Britain and the Conquest of Africa. The Age of Salisbury, (Michigan: University of Michigan Press, 1874), Chapter on Egypt.
15. Raye R. Platt and Mohammed Bahy Hefny, Egypt: A Compendium, (American Geographical Society, 1958), 195.
16. The size of a feddan varied from time to time in Egypt. In 1861 a feddan was equal to 4,200 square metres. For details see glossary and E.R. J. Owen, Cotton and the Egyptian Economy 1820-1914. A Study in Trade and Development, (Oxford: The Clarendon Press, 1969), 381.
17. Baer, A History of Land ownership, 4. The fellaheen refused to work for their former 'masters', the sheikhs and moultezims saying "find someone else your days are past, now we are the pasha's fellahs." But the pasha was equally cruel and making too many demands on tax rise.
18. Note that this distinction between winter and summer crops is for clarity only. In practice cultivators could grow what they wanted or what was required of them. Indigo and saffron are vegetable dyes obtained from plants.
19. Platt and Hefny, Egypt: A Compendium, 36. The year 1821 was when commercial long-staple-cotton growing began. This was a special high-quality cotton started by a French agronomist Monsieur Jumel in Cairo. However, before 1821, short-staple cotton was grown both in the Lower and Upper Egypt for local use.

20. It should be recognised as I have already indicated elsewhere in this thesis that statistical data for this period is very confusing and conflicting indeed. For example some figures indicate that in 1833 alone 1,856,000 feddans were cultivated and in 1835 alone 3,500,000 fedans were cultivated. See Crouchley, Economic Development, 57-58, and 259-260, especially footnotes 2,4 and 6 on page 260. The same is true for the size of a feddan which had been changing since 1800 as shown in Crouchley's work on page 260 footnote 3. Also see the glossary provided.
21. For the cost of cultivating summer and winter crops see Appendix Table 1. Large landowners included those who had more than fifty feddans of land. Some of them were foreigners. Notables included some rich people who also owned land but were not as rich and influential as the beys or the large landowners.
22. Crouchley, Economic Development, 61.
23. A kantar is equal to about 45 kilograms. For details see glossary and Owen, Cotton and the Egyptian Economy, 382-383.
24. Crouchley, Economic Development, 63. Also check Appendix, Table 4. There is in fact a good debate on the Egyptian cotton farmers responsiveness to price fluctuations by Robert M. Stern, 'The Price Responsiveness of Egyptian Cotton Producers', Kyklos vol. xii Number 3 (1959), 375-384. See especially the footnotes for other volumes of this journal for a complete debate.
25. Crouchley, Economic Development, 63. The government bought from farmers at 5 dollars and sold at 15 to 17 dollars a kantar.
26. Crouchley, Economic Development, 77.
27. J. I. Craig, 'Statistics', L'Egypte Contemporaine vol. xxvi Nos 153-154 (Jan-Feb 1935), 120; Weiss and Green, A Survey of Arab History, 479; H.F Wood, Egypt Under the British, (London: Chapman and Hall, 1896), 87.
28. Figures in the above paragraph from Crouchley, Economic Development, 51-55; for maps on the campaigns in the Sudan, Arabia and Greece, Richmond, Egypt 1798-1952, 45, 48 and 60.
29. Richmond, Egypt 1798-1952, 52".... travelling through the villages in spring there were no able-bodied men to be seen, nothing but women, children and old men."
30. For details of this treaty, Weiss and Green, A Survey of Arab History, 478-80.
31. Helen Anne B. Rivlin, The Agricultural Policy of Mohammed Ali in Egypt, (Cambridge, Massachusetts: Harvard University Press, 1961), notes on the front inside cover.

32. Richmond, Egypt 1798-1952, ix. There is a list of valis, khedives, sultans and kings of Egypt of the house of Mohammed Ali.
33. For details see Baer, Studies in the Social History, 62-79.
34. Richmond, Egypt 1798-1952, 86.
35. See Appendix, Table 2, and Richmond, Egypt 1798-1952, 111, for increased cultivated land and some of his achievements. Also see Map 2.
36. Crouchley, Economic Development, 117.
37. Issawi, Egypt, 12.
38. Issawi, Egypt, 19, and Richmond, Egypt 1798-1952, 86.

CHAPTER TWO

BRITISH AGRICULTURAL POLICIES IN LOWER EGYPT, 1882-1922

British Policies on Agriculture

Uzoigwe has cogently argued that the objectives of British occupation in Egypt were economic while Robinson and Gallagher have painstakingly tried to make us believe that the objectives were strategic and not economic.¹ I share the views of Uzoigwe more than those of the other two scholars. But whatever the opposing views in this on-going debate, the important thing is that they add up to a better understanding of the colonial history of Egypt and Africa as a whole. The truth is that economic factors were the driving force for the British occupation of Egypt.² Strategic factors were important but not as decisive as economic factors.

In the initial two years of the occupation, 1882-1884, there was an air of uncertainty over the duration of the British occupation in Egypt. British government officials could not confidently estimate the length of time it would take before the British troops were withdrawn from Egypt. This period of uncertainty affected their policies. Planning and policy-making for the future could not be effected without knowing for certain the period of their stay in Egypt.³ But in order to embark on a programme of financial rehabilitation so as to reduce the country's huge debts, an experimental policy of reform had to be followed. Basically, this was "a policy of increasing the value of Egyptian agricultural output and was the earliest way of obtaining a continuous rise in government revenue".⁴ This was the essence of the occupation: to progressively create enough revenue to run the country

and pay the creditors in Europe. The policy was rather similar to that pursued by other rulers before the British.

Two months after occupying Egypt, the British government sent Lord Dufferin to Cairo to "make recommendations for reforms which would afford satisfactory guarantees for the maintenance of peace, order and prosperity in Egypt"⁵ In all, his report favoured a prolonged British occupation of Egypt for the preservation of public tranquillity. This could be achieved by reforming Egyptian administration under British guidance.⁶ In February 1883, Tewfik, the khedive, abolished the Dual Control. From this date, control passed into the hands of the British government. In order to effectively control the government and improve financial affairs in Egypt, the British government sent her representative to Cairo in September 1883. He was Evelyn Baring, later known as Lord Cromer after he was created Earl of Cromer in 1892. His full title in Egypt was "British Agent and Consul-General." He was the chief executive.

The British applied the policy of indirect rule in Egypt. The khedive continued to appoint the personnel which consisted of the Egyptians. But British rule through Cromer was represented in every department of government by a British advisor whose 'advice' decided every disputed issue and determined policies according to principles laid down by Cromer and ultimately the Foreign Office. Thus, Britain governed the governors of Egypt. The system worked well and Cromer is quoted to have proudly and emphatically asserted that "Tawfiq rules Egypt and I rule Tawfiq."⁷

From 1884, it became clear that British occupation would be for the duration of a long period. Henceforth the tentative policy of reform became a policy adopted to be long term and was put into practice extensively. Prime importance was given to schemes connected with the agricultural sector, specifically in three fields, namely, in increasing the summer water supply; in improving the system of transport and communication, and in reforming the method of collecting land tax.⁸ These were initiated by Lord Cromer and fitted very well with his main task in Egypt, that of increasing the country's revenue and paying debts.

For forty years British agricultural policy in Lower Egypt was more than ever before to put the greatest amount of land under perennial irrigation and to have the highest yields of crops for which there was demand in Britain. Also, to improve the conditions of the poor fellaheen was an objective. The most important cash crop was cotton. Beginning with Cromer, all British agent and consul-generals and high commissioners worked tirelessly to increase cotton production in Egypt. In fact for four decades Egypt was turned into a cotton farm and became an exclusive source for cotton to the British textile factories and an exclusive market for British manufactured goods.⁹

Agricultural Changes and Consequences

The main changes in agriculture included the following: setting up government-controlled cotton markets in cotton-growing zones; establishing better ways of disseminating agricultural information to the farmers such as that of organising agricultural shows in Lower Egypt; research in crop rotation and the use of mechanisation on large estates; research in improving cotton yields and ways of fighting pests; increasing the

agricultural inputs in the country, with some of them introduced for the first time, like chemical fertilizers; diversifying the cotton-dominated monoculture system of agriculture and increasing the number of qualified agricultural personnel in the country by establishing local agricultural colleges.¹⁰ Some of these changes were successful while others failed lamentably.

The major consequence of the various agricultural changes instituted during the British era was an accelerating change in the life of the fellaheen. The changes were undertaken progressively in four phases, namely, the era of Cromer, 1883 to 1907; the Gorst-Kitchener period, 1907 to 1914; the war period, 1914 to 1918 and the post-war period, 1919 to 1922.

The Era of Cromer, 1883-1907

For twenty-four years from 1883, Lord Cromer was the British agent and consul-general in Egypt. He was the man on the spot and put into practice the plans and policies of the British government. He was a diplomat of wide experience gained especially in India where he had worked before coming to Egypt. He was also the right man for the post in Cairo since he had already been part of a panel looking into the financial problems of Egypt in 1877.¹¹ Thus when he was taking up the post he was fully aware of the complex system of government in existence and planned to work out a system pragmatic enough to pave the way for agricultural and financial improvements in the country. The pre-requisite for this was the creation of infrastructure and irrigation.

The wealth of Egypt came from a proper utilisation of its land for crops that had markets abroad. For Cromer to generate capital in Egypt

he had first to improve the chaotic taxation system, to make money reach government coffers; and to improve and expand agriculture in the country to meet the already prevailing demand for the cash crops from Egypt. Once again as in Mohammed Ali's day, state capitalism was to transform the agricultural sector. His priority was to expand summer irrigation and improve the existing uses for the Nile floods. To do this, Cromer relied on his experience in India. Thus, he brought from India expert irrigation engineers to supervise irrigation works in Egypt. Unlike the previous French irrigation engineers who directed their work while seated in their offices in Cairo, the Anglo-Indian irrigation engineers left their offices in Cairo and went into the fields and supervised the indigenous workers on the spot. They went where the problem was and solved it there. This was the main difference between these two groups of highly trained irrigation engineers. In addition, the French engineers did not have previous experience in large scale irrigation projects. The Anglo-Indian engineers had.¹²

Cromer supported the irrigation department extremely well with funds to carry out their tasks unimpeded. "Only the irrigation department could count on money for long term department projects".¹³ As a result of this support, in 1885 £2,000,000 was exclusively for improving the irrigation system; in 1891 nearly £2,000,000 was for irrigation projects; £500,000 was spent on restoring the abandoned Delta barrage, which by 1890 was fully operational; in 1902 £4,000,000 was used on irrigation and drainage system. The following year, 1903, £179,000 was also spent on improving irrigation system.¹⁴

With this money, irrigation engineers erected a number of barrages, dams, canals, canal regulators and reservoirs in Lower Egypt. For example,

in 1890, the Delta barrage was restored. This was after repairing the two branches of the Delta barrage, namely, the Rosetta branch barrage and the Damietta branch barrage in 1887 and 1888 respectively. The same year the Tewfikieh Canal was cleared at a cost of £372,000.¹⁵ In 1902 the Aswam dam was completed at a cost of over £2,000,000 and the man-made lake that formed behind the dam guaranteed the water supply for summer crops in Lower Egypt. In 1903, the Zifta barrage and Ismailia Canal were constructed in the Delta, and numerous other barrages, canals and small dams were completed in Lower Egypt using the funds exclusively for increasing agricultural development in the country.¹⁶

The consequences of such agricultural developments in the first phase of British occupation were far-reaching. There was a tremendous increase in the general water supply for growing crops. Districts which had never seen summer water in the Delta had it this time. Many farmers found summer water level in the canals at the required level and had only to open sluices to obtain it, instead of having to use the laborious sargia or shaduf method of lifting water or the expensive pumping method used by some farmers before the British occupation. There was from this period, an equal distribution of summer water to the fellaheen. It was a great break-through in the life of the fellaheen.

There was an immediate extension of land under cultivation.¹⁷ Cultivated land directly taxed by the government rose from 4,764,406 feddans in 1881 to 4,913,678 feddans in 1889. Agricultural land increased from 5,495,000 feddans in 1899 to 5,658,000 feddans in 1911. Other cultivated land not directly taxed by the government increased from 4,805,160 feddans in 1893 to 5,403,891 feddans in 1905. Cropland for summer crops increased from 813,012 feddans in 1879 to 1,712,276 feddans in 1899.¹⁸

The fellaheen grew more crops and in particular increased cotton production as a result of the newly abundant water supply in summer.¹⁹ The Delta barrage increased cotton cultivation in Lower Egypt from 5,221,000 kantars in 1892 to 6,544,000 kantars in 1897. At this time over ninety per cent of the entire Egyptian cotton crop was being grown in the Delta. This amounted to 1,065,000 feddans of cotton in the Delta in 1899.²⁰ The race against the £100,000,000 debts of Egypt was being won by increased production. More revenue from taxes on the exports of cotton and other agricultural products increased the money in the government treasury. The more the country exported, the more money the government raised from taxes on exports. For instance in 1892, 2,510,000 kantars of cotton were exported for a value of £8,664,000; in 1899, 6,512,000 kantars of cotton were exported at a value of £15,565,000 and at the close of Cromer's administration in 1907, 6,913,000 kantars of cotton were exported for £23,277,000.²¹ Thus government taxes from these cotton exports also increased correspondingly. In the first twenty years of Cromer's twenty-four years of administration in Egypt, sixty per cent of the £136,000,000 of Egyptian expenditure was devoted to the debt, and he reduced the "annual interest charge on the debt by more than three-quarters of a million pounds annually."²² He cleared up the financial chaos in which he had found the country in 1883. Perennial irrigation replaced the older system of basin irrigation and he extended such services to Middle and Upper Egypt. As irrigation became extensive, land under cotton increased. This led to more cotton sales, and ultimately increasing the government revenue raised from government taxes on cotton exports.

Lord Cromer improved the physical infrastructure in the country to support domestic and international trade. Road, railways, and telegraphs were extended. Some of these communication industries were ran by the provincial authorities and others were owned by private companies. In 1890, state railways carried 4,700,000 passengers and 1,683,000 tons of goods. In 1906, the figures jumped to 22,550,000 passengers and 20,036,000 tons of goods. There were also 1145 kilometres of agricultural railways in 1902 owned by a private company, the Agriculture Railways. The company carried 6,924,000 passengers and 929,000 tons of goods in 1906.²³ The seaports were also expanded. These figures illustrate an immense improvement in material condition of the country during Cromer's period. With such transport and communication facilities, it was easy and faster to increase exports to European markets and earn huge profits of which some would be re-invested in the agricultural sector and some used as payment for the country's debts.

The government under the watchful eye of Cromer instituted reforms which favoured the fellaheen, who, as a result, worked very hard on their farms, increasing the agricultural output for export to the satisfaction of the government. The reforms induced the fellaheen to have more land; more time to work their lands; more technical assistance from the government; more money from the sale of their agricultural products and ultimately eased the tax burden.

The first reform came in 1891 when the corvée system was abolished. Its abolition did not have much effect on problems of labour for clearing the silted canals. That was because the British irrigation engineers provided efficient irrigation works. Companies were also contracted to

clear silted canals. Therefore, there was no need to use corvee workers anymore. As expected, the termination of the corvee system was followed by an abolition of corvée tax in 1892. From this year, fellaheen had more time to work their field and contributed more to agricultural output.²⁴ The Courbash, a raw-hide whip, had been used for flogging corvee fellaheen or any other workers if found resting in the fields. It could also be used brutally on any offender in the country, especially those who evaded tax payment.²⁵ The practice was also abolished by the Cromer administration in Egypt. It saved the Egyptian fellaheen from horrible torture. Corruption that had been the order of the day in the ranks of administration before British occupation was stopped by Cromer. It paved the way for honest work and personnel in administration and raised productivity thereafter.

Other reforms included land laws such as the 1892 and 1897 land laws which removed the last restraints and left the peasants free to do unrestricted development on their lands like growing the crops they wanted uncontrolled and practising share-cropping on their farms. Such laws were an inducement to peasants to acquire land for themselves and their families. They also increased their agricultural incomes. Taking advantage of the initially low prices for land many rich fellaheen bought land. Some of the fellaheen purchased land with the money from loans obtained from village usurers. After 1902, most fellaheen got loans from the Agricultural Bank to buy land. In fact, the land laws and loan facilities led to a gradual increase in the number of small landholders between 1895 and 1913.²⁶

In 1892 a new cadastral survey was commenced. It was for re-assessment of land and a land tax, to be based on the results. It was

completed in 1907. The outcome of the survey was progressive taxation. The government fixed taxes according to the size of the land. The important thing was that the re-assessed rates of taxation favoured the fellaheen.²⁷

Still continuing with the measures to improve agricultural performance in the country during Cromer's period, a department of agriculture was established in 1895. The main purpose of the department was to increase research in cash crops, especially cotton. In 1898 the large landowner-controlled Khedivial Agricultural Society (hereafter known as KAS) was founded. It had entomologists, analytical chemists, veterinary officers and other specialists in various fields of agriculture. The society had depots in the Delta districts to serve the peasants with farm inputs at reasonable prices. For example, in 1902, the society spent £12,000 on fertilizer imports and sold some of it to the peasants in the Lower Egypt.²⁸ To increase the number of extension officers and agricultural experts, the Ghizeh School of Agriculture was opened in 1900. As a way of stimulating peasants to learn modern methods, the KAS started organising agricultural shows where farmers exhibited their produce and peasants had time to learn from commercial farmers.

The official policy by 1900 was to help the small landowners as much as possible. But the small landowners had borrowed plenty of money from foreign money lenders like Greeks, or merchants and from village usurers. They were finding it hard to repay. The money was mainly for purchasing land and farm inputs. By 1882 the debts of the fellaheen reached over £5,000,000. In 1905 it was £19,000,00 rising to £44,000,000 in 1912.²⁹ The indebtedness of the fellaheen

reached an alarming level and if unchecked could have greatly affected their productivity by not having enough money to buy farm input. This was not a new development. It existed since the reign of Ali in 1830s and went on up to just before the First World War. To arrest this sad situation, the government established the National Bank in 1898 to serve the small farmers by giving them easy credit facilities to purchase farm requisites and pay off their loans. To supplement the services of the National Bank, an Agricultural Bank was formed in 1902. It advanced sums of money in small amounts totalling £9,000,000 to the fellaheen to help them pull out of financial problem and improve their agriculture.³⁰

Cromer's policy of ensuring that irrigation systems were efficient enough to provide water to farmers was carried out smoothly. It increased crop production especially cotton. But at the same time there was a large flow of money for other development projects in the country due to revenue from improved agricultural system. This was reflected in Cromer's 1891 assertion that, "in the nature of things there is really nothing to prevent Egypt ... from becoming one of the most prosperous countries in the world."³¹ But unfortunately the prosperity he was writing about depended on one sector of the country's agriculture - cotton-growing. He realised this situation in 1905 when he expressed his concern by stating that "probably the greatest danger which threatens Egypt ... lies in the factthat the country depends too exclusively on one crop."³² However, this was not the only problem Egyptian cultivators were to face as from 1900. Cromer also perceived the declining yields of cotton and other crops by that time as due to overcropping. Later in 1903 and 1904 insect pests and cotton worm

started destroying cotton, threatening the most important money-spinner for his administration. From 1904, measures to control pests and cotton worm were instituted.

The other problem that Cromer's administration faced before he left Egypt was the overpopulation in the country districts.³³ He tried to offer remedies before he sailed off to England in 1907, such as the provision of skills to the landless fellaheen in rural areas so that they could find employment in non-agricultural industries in towns. But this could not be achieved in Egypt at this time because Cromer failed deliberately to industrialize the country for fear of injuring the British economy and reducing his own government revenue to pay the creditors and run his administration.³⁴

Diversification in agriculture was one way of reducing dependency on one crop. After 1898, Cromer encouraged the growing of other crops such as rice, sugar cane, wheat and maize. These crops were indeed grown more frequently in the years following his directives.³⁵ Another problem that Cromer faced was a decline in cotton yields, reported two years before he left the country. He suggested that it could be arrested by stopping overcropping and distributing goodseeds to the farmers. It was not the right solution to the then undiscovered cause for the low yields. However, agronomists found out the real cause later on: there was too much water in the fields due to a poor drainage system. His successors continued providing solutions to agricultural problems.

To sum up, for the first twenty-four years of the forty years of British rule in Egypt, Cromer was the consul-general in Cairo. As a pioneer administrator in Egypt, he laid down good foundation for the

other leaders. His rule in Egypt was beneficial in a number of ways. The Egyptian administrative system Cromer inherited was changed to the British administrative system, resulting among other things, in peoples' rights being respected. He also abolished the use of the courbash and the corvee system to the benefit of the country's agricultural development. He reduced corruption. Law and order were maintained everywhere in the country. Transport and communication were improved and extended to nearly all corners of the Delta, boosting local and international trade. The Nile waters were utilised properly for the development of agriculture in the country, consequently increasing crop production, cotton in particular; and increasing cotton exports, the main foreign exchange earner for the nation. Thus his reign saw an increase in money in the government treasury which was put to good use, maintaining tranquillity and stability in the country.

Cromer failed to develop certain sectors of the economy. The industrial sector remained neglected during his reign. He was also unwilling to develop the educational and political sectors of the Egyptian society. But despite these isolated failures, Cromer left behind a fairly good, strong and stable government in Egypt in 1907. The fellaheen appreciated Cromer as a man whose administration and reforms in agriculture transformed their economic life to their advantage more than any other leader before him.³⁶

Gorst-Kitchener period, 1907-1914

Between 1907 and 1914 two British agents and consul-generals came to Egypt. These were Sir Eldon Gorst and Lord Kitchener. When Cromer left for England on 6th May 1907, Sir Eldon Gorst took over as consul-general. He held the post until 1911 when he fell sick and sailed to

London where he died in July of the same year. Initially, Gorst was one of Cromer's diplomatic staff. He rose to the rank of advisor to the Ministries of the Interior and Finance between 1894 and 1903.

In economic policy, Gorst followed the footsteps of Cromer but politically he strongly differed with him. During the first two years of his administration in Egypt there was a terrible recession in Europe. It deeply affected Egypt because Egypt was economically tightly knit to the European economy through its exports of agricultural products to Europe. The recession in Europe reduced the value of agricultural output in Egypt. By its close integration into the global capitalist system, Egyptian producers became vulnerable to the fluctuations of the world market. This was a big blow to Egypt, a country which depended on agricultural products for its survival.³⁷ It was aggravated by the low cotton yields during the same period. Intensive research by various sections of the Public Works Department (P.W.D.) revealed waterlogging of the subsoil as the cause of the low yields.³⁸ From 1910, the major task for the government was to improve the drainage system. Simultaneously the department employed measures to control pests and cotton worm, the other factors that contributed to the low crop yields.

In 1910 a need arose to increase the supply of summer water by increasing the storage capacity of the Aswan reservoir. So the raising of the dam by five metres was started. The target was to raise the water capacity from the original 1,000,000,000 tons of water to over 2,000,000,000 tons of water when completed.³⁹ Gorst also continued until he left Egypt the programmes of demonstration farms and a government agricultural inspectorate to stimulate farmers to adopt the modern agricultural techniques, and to check on land abuses, such as wasteful planting among the fellaheen.

Gorst was also the only consul-general in Egypt who practised the policy of political liberalization. It was a policy that favoured opening up more administrative positions to qualified Egyptians. He also hoped to strengthen local government through his radical reform in political-constitutional and administrative matters of the country. The new policy made Gorst very unpopular among the British in Egypt because his policy was jeopardizing British officials' positions in Egypt.⁴⁰ But such changes in the administration made him very popular among the indigenous population.

Gorst aimed at achieving one important thing. He wanted to silence the opposition to British rule mounted by the educated elite. He thought that by giving the nationalist leaders a share in the administration of the country, he would reduce their powers and hence the discontent over British rule. The results were discouraging for Gorst. The nationalists' feelings continued to grow. In fact, non-professional classes were among the main followers of the nationalist movements. But this discontent did not culminate into any organised resistance to British rule until after the First World War.

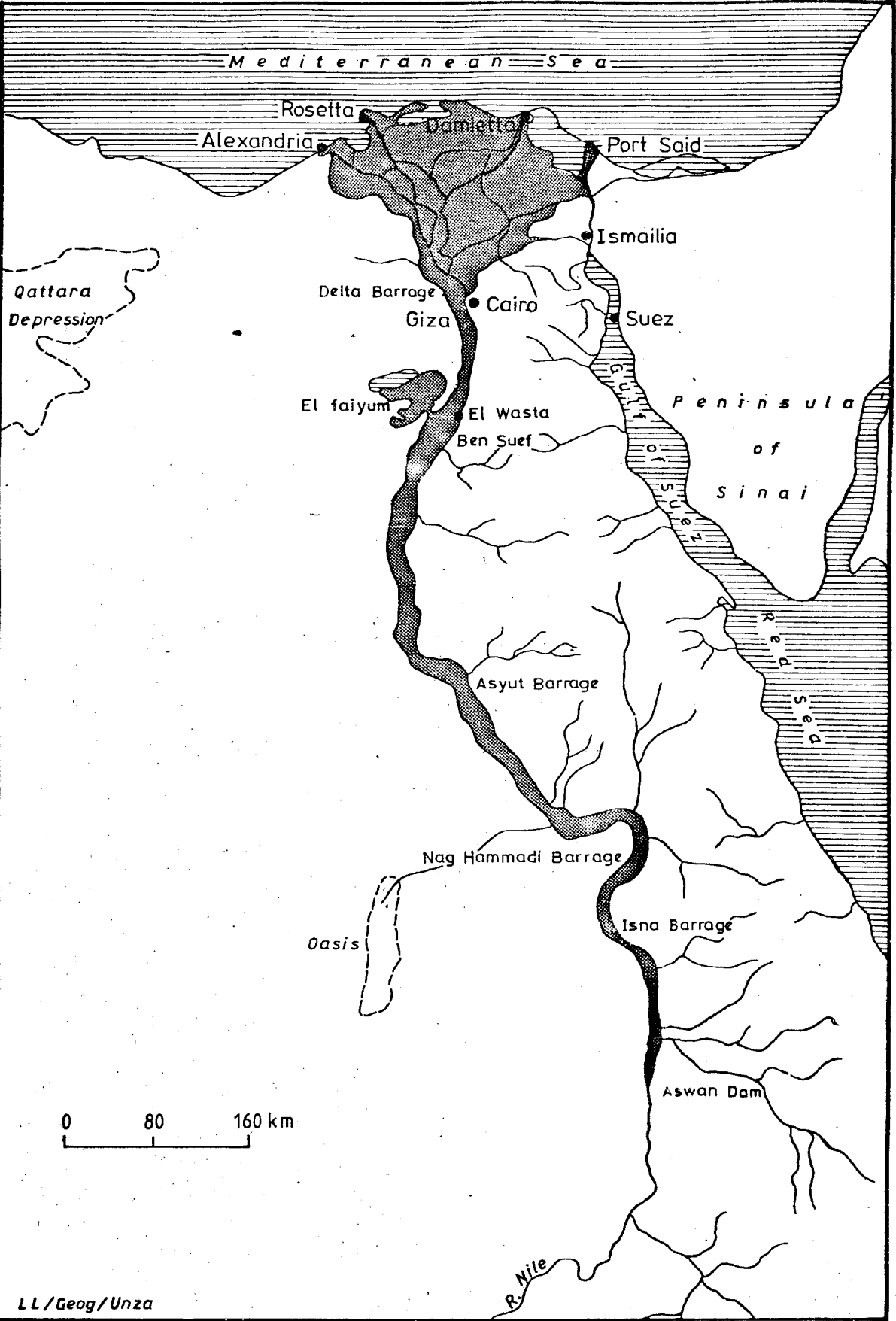
Lord Kitchener superseded Gorst in the summer of 1911. He was also an experienced diplomat who had successfully served the British government in many parts of Africa and in India.

Like Cromer, Kitchener felt sympathy for the fellaheen's conditions. He feared that discontented peasants were a big threat to the British position in Egypt. The creation of a class of small peasant proprietors contented with, and supporters of British rule was his aim. To see that small proprietors, practising petite culture were given adequate land and protected, was his other objective.⁴¹ To achieve these aims, he

stopped the trend of a handful of rich people taking all the land in the Lower Egypt and he protected fellaheen from unscrupulous land-hungry people. In 1912 Kitchener passed a "Five Feddan" law. Clause two of the law stipulated that "agricultural holdings of farmers who do not hold more than five feddans of land cannot be seized for debt".⁴² They also could not be evicted from their small farms because of the 1913 Homestead Exemption law. This was definitely an appropriate move in protecting small-scale farmers in the country. In addition to these two laws, a decree was issued limiting interest on loans to peasants to nine per cent. As a result the fellaheen had greater access to land reclaimed in the Gharbiyya province in the Lower Egypt, at lower prices.⁴³

Kitchener sought to improve agriculture in a number of ways. He expanded the department of agriculture in 1912. Giza research station was also established. In 1913, the department of agriculture was transformed into a ministry of agriculture. These institutions were run by British agricultural experts. Experiments on cotton and other crops intensified; their results being manifested in the gradual increase in crop yields. The problem of drainage in Lower Egypt was also effectively tackled. First, the Delta was divided into drainage zones from 1911. Then large-scale drainage operations were started, occasionally under Kitchener's supervision. Demonstration farms continued to play the role of being the centres for disseminating information on techniques in crop rotation, use of seeds, ways of stamping out cotton worm and bollworm, use of chemical manure and ways of reducing waterlogging. The extension to Aswan dam was completed in 1912 with the expected results.

MAP.3 THE NILE, SHOWING CULTIVATED LAND AND BARRAGES BY 1922



Source: A.E.Crouchley, *The Economic Development of Modern Egypt*, (Longmans: London, 1938) p.144

The fellaheen had to be protected from dishonest merchants who bought fellaheen's cotton using dishonest methods. Halakas, official cotton markets, were formed in all cotton areas of the country. In these halakas, accurate weighing machines were used. The department of weights and measures employed supervisors and inspectors to see that fellaheen were not defrauded. In the past, frauds were so rife that peasants retaliated by increasing the weights of their cotton through dishonest means of wetting cotton or putting bricks in the cotton bags. Such practices ceased with the establishment of halakas.

Gorst and Kitchener expressed their willingness to embark on "large-scale public works and a policy of non-intervention in the country's commercial and financial life".⁴⁴ They were the first since Cromer to advocate partial industrialization in Egypt, a policy Cromer resolutely refused to undertake. This move had the blessing of the growing nationalist groups in 1912, and it was one way of reducing dependence on agriculture. The policy was in no way a response to the growing nationalist groups. However, the policy could not be put into practice from 1914 onwards because of the outbreak of the First World War. After the war the policy of industrialization was revived, accepted and effected.

The War Period, 1914-1918

While Kitchener was on leave in London the First World War broke out. He was assigned other duties in the War ministry and remained there. In Egypt he was replaced by Sir Henry McMahon who in 1916 was succeeded by Sir Reginald Wingate. In 1919 General Sir Edmund Allenby superseded Wingate. He was the last British High Commissioner in Egypt before the country became independent in 1922.

War broke out in July 1914. Turkey joined the war in October on the side of the Central Powers, the enemies of Britain. Due to this, Egypt, whose nominal overlord was Turkey, although administered by Britain, was declared a British protectorate on 19th November 1914.⁴⁵ From then onwards, all British representatives in Cairo took the title of High Commissioner.

As a measure against food shortages in wartime, agricultural improvements had priority over other projects. Drainage operations continued smoothly; agricultural research progressed uninterrupted; irrigation works went on as usual, although new projects were discouraged. Production of food crops like wheat and industrial crops such as cotton were carefully monitored and controlled for war purposes. To a greater extent than before, the government more directly helped farmers to sell their crops. For instance, when the war broke out in 1914, farmers had not harvested cotton. They also did not know how they were going to sell it to the overseas buyers in times of war. They panicked and desperately, though unsuccessfully, tried to look for alternative markets for their crop. The government in Egypt solved the farmers' problem. It decided to buy their cotton on the open market on behalf of British government.

Prices for agricultural produce, especially cotton, fluctuated during the war but on an average they were rising steadily and reached a peak after the war in 1919.⁴⁶ This led to great prosperity for the country as reflected in the enormous trade balances in favour of Egypt, between 1914 and 1918.⁴⁷ Fellaheen had acquired much money during the period of high prices and some bought plenty of land consequently improving their economic status in the society.⁴⁸

In 1914 a law came into force restricting cotton acreage to a third of the holding of any cultivator. This resulted in a reduction of about half a million feddans under cotton in 1915.⁴⁹ When the government directed a reduction in cotton acreage despite good prices on the market it also directed unrestricted increase in the acreage for food crops to avoid food shortages during the war. There were thousands of troops in Egypt from abroad. Increase in food was a requirement the government could not ignore. In general, Egypt was not short of food in the First World War. In fact, the country produced its own grain requirements in wartime, a feature that had not been prevalent in the pre-war period. However, this is not to completely deny the fact that in some years during the war the country faced food problems, as was the case in 1917.

High demand for cotton on the world market during the war was indicated by the high prices for it throughout the war. Such a situation temporarily removed the dangers of cotton glut on the market. With this in mind, the government rescinded the cotton acreage restrictions in 1916. But the decision had unexpected results. Many fellaheen concentrated on growing more cotton than foodcrops. Also, thousands of fellaheen were recruited into the Labour Corps of the army, adversely affecting local production of food crops.⁵⁰ Thus reductions in food crops and cropland for food crops affected food supplied unfavourably.⁵¹ Widespread ramifications of a near food crisis surfaced. People panicked and the government thought of importing food into Egypt to alleviate food problems. Consequently in 1917, the 1914 law was revived: farmers were stopped from planting more than a third of their land with cotton. They were highly encouraged to produce more food crops, through

a system of advance-buying by the government at high prices, as was the case in 1918. However, this law was repealed after the war, to give the chance to farmers to grow more cotton.

The Post-war Period, 1919-1922

Although agricultural improvements went on uninterrupted in the post-war period up to independence, the High Commissioner had to give priority to political questions, rather than to agricultural matters. The nationalist agitators for independence were active and their cause was gathering momentum with each day that passed.⁵²

In 1920 a bumper harvest of wheat was recorded. It was attributed to the 1917 law on reducing cotton acreage and the low cotton prices of 1920. As a precautionary measure, the fellaheen switched over to cereal-growing, particularly to wheat. The low cotton prices of 1921 forced the government to use its traditional strategy of issuing a decree declaring a minimum of acreage must be planted to cotton.

Although Egypt came out of the war with greater prosperity than before production of staple foodstuffs diminished after the war. The result was a rise in prices for food and yet no proportionate rise was given to wages of the workers. There was widespread suffering in the country especially among the masses of the towns. The British attributed this to the short-sightedness and weakness of the Egyptian ministers. The suffering masses accused the British for their miserable life and consequently hatred for the British mounted and political disturbances erupted in many towns and were increasing rapidly. Egyptians were demanding political independence to rule themselves without British interference and end the people's sufferings they thought were deliberately British-engineered. Indeed

the forty years of British occupation in Egypt came to an end in the winter of 1922.

This chapter has looked at the role of the state in agriculture since 1882. The study has shown how important it was right from outset for the government to clearly develop a policy on agriculture. Really, the policy was formulated as early as 1884. It was mainly limited to the improvement, building, maintenance and administration of the irrigation system. Side by side with this was the maintenance of law and order in the countryside and making of social legislations in favour of the fellaheen.

From the above discussion a conclusion can be drawn that there was a link between the improving lot of the fellaheen and the creation of the jobless masses. By obtaining loans, from non-government sources like village usurers and foreign merchants, to improve their economic life, through the purchase of land, many of the fellaheen were heavily indebted. As a result, the indebted fellaheen sold their lands and roamed the countryside and the urban areas. A large number of these became jobless. This was a continuation of a social differentiation process among the fellaheen in the countryside. The process began during the era of Mohammed Ali.

What then did the British agricultural policy accomplish in Egypt? First, the agricultural policy was able to increase irrigation facilities in the country. This in turn increased land under crop production. Consequently, both agricultural exports and agricultural incomes increased to the benefit of the country. Secondly, the policy accomplished another important thing: that of attracting investments outside agriculture. Railways, roads, canals were improved and extended,

facilitating internal and international trade. Thirdly, the policy made the fellaheen who were traditionally very poor because the fruits of their toil were appropriated by the landlords and the pre-British governments, enjoy some rights in society and adopt the new techniques of agriculture.

The other crucial question to answer is: who benefitted from the British agricultural policy in Egypt? Without doubt, the owners of the factories processing agricultural raw materials, especially textile factories in Britain benefitted most. Agricultural products in Egypt, particularly cotton were grown for export to Britain and other European countries. The factories in Britain sent finished products to Egypt gaining much from the Egyptian market. Also such raw materials kept British factories running, employing thousands of workers while this was not happening in Egypt. In Egypt, the owners of gins, agents for cotton in the rural areas, the upper landowning elite, and exporting firms all benefitted greatly from the agricultural policy. The people who also benefitted though not as much as the ones mentioned earlier, were the fellaheen. The price at which the agricultural products were sold to buyers inside the country was lower compared with the price at which merchants sold the products to customers in Britain and Europe as a whole.⁵³ There was nothing the fellaheen could do to control the cotton prices at this time. Apart from the cultivators, the country as a whole did not benefit much from the agricultural policy. The income from agriculture was used to pay the creditors in Europe. It was not, for example, used on developing industries in the country to help ease the problem of jobless fellaheen.

However, the British were not wrong in what they did in Egypt.

From 1870s the British concern in Africa was to avoid the mistakes they made in India: creating an impoverished and indebted peasantry. In the light of such a background, and on an average the British colonial rule, through their agricultural policy improved the life of the peasants in Egypt. Rich peasants emerged and the government established institutions which pulled the fellaheen out of their debts and other predicaments.

Finally, two separate issues often confused need to be clarified, in order to understand this study. The first one is that in a colonial situation surplus is naturally accumulated for the benefit of the metropole - whether by a class, directly to a government, or any group. This happened in Egypt during the British colonial rule. Surplus was externalised to Europe, particularly Britain; hence the "underdevelopment of Egypt" can be documented. Secondly, and this is important: while exploitation occurred in Egypt during the British colonial times, integration into the capitalist world raised productivity in the country. Most fellaheen were in fact better off than previously. Improved agricultural productivity in the country led to eventual benefits of improved consumption. There was also the formation of new classes. Some fellaheen found their way up as rich farmers, some became proletarianized. However, exploitation became more efficient than under Ottoman mercantile capitalism where a class of beys and others directly and through corruption tended to keep the majority of rural cultivators immiserated.

Chapter Two - Notes

1. R. Robinson and J Gallagher, Africa and the Victorians. The Official mind of Imperialism, (London: Macmillan, 1961), chapter on Egypt; G.N. Uzoigwe, Britain and the Conquest of Africa. The Age of Salisbury, (Michigan: University of Michigan Press, 1974), chapter on Egypt.
2. G.N. Uzoigwe, 'The Victorians and East Africa, 1882-1900: The Robinson-Galagher Thesis Revisited', Transafrican Journal of History 5, 2 (1976), 32-65.
3. Cromer, Lord. Modern Egypt, 2 vols. (London: Macmillan, 1908), 1:131-134. In 1882, a few hours after occupying Egypt, the British government favoured a withdrawal while Europeans residing at Alexandria wanted permanent British occupation of Egypt.
4. E.R.J Owen, 'The Attitudes of British officials to the development of the Egyptian Economy, 1882-1922', M.A. Cook(ed), Studies in the Economic History of the Middle East from the rise of Islam to the present day, (London: Oxford University Press, 1970), 488.
5. J.C.B. Richmond, Egypt 1798-1952. Her Advance Towards a Modern identity, (London: Methuen and Co., 1977), 137.
6. For details on the Dufferin Report, see Cromer, Modern Egypt, 1:339-344; W.B. Worfold, The Future of Egypt, (London: n.p., n.d.), 58-59.
7. B.F. Weiss and A.H. Green, A Survey of Arab History, (Cairo: American University in Cairo, 1980), 485; S. Low, Egypt in Transition, (London: Smith, Elder and Co., 1914), 212.
8. R. L. Tignor, Modernization and British Colonial Rule in Egypt, 1882-1914, (Princeton, New Jersey: Princeton University Press, 1966), Chapters 1 and 2.
9. Highest tonnage and highest number of steamers from Britain at Egyptian sea ports. Arnold Wright (ed), Twentieth Century Impressions of Egypt. Its History, People, Commerce, Industries and Resources, (London: Lloyd's Greater Britain Publishing Co., 1909), 161.
10. Diversification was tried, but it was not successful: cotton was still the main crop even after independence in 1922.
11. For details on the Goschen Mission see Cromer, Modern Egypt, 1: 11-28.
12. E.R.J. Owen, Cotton and the Egyptian Economy 1820-1914. A Study in Trade and Development, (London: Oxford University Press, 1969), 333-335.

13. Tignor, Modernization in Egypt, 113-114.
14. Figures for 1885 and 1891, A.E. Crouchley, The Economic Development of Modern Egypt, (London: Longmans, 1938), 144; for half a million pounds in 1890, A. Milner, England in Egypt, (London: Edward Arnold, 1894), 301; the cost for various other irrigation works, Milner, England in Egypt, Chapter iv passim; for four million pounds in 1902, Reports by His Majesty's Agent and Consul-General on the Finances, Administration and Condition of Egypt and the Soudan in 1902 (hereafter called Command papers), 8; for the 1903 figures see Command Papers, 1951 for 1903, 24.
15. W. Fraser Rae, Egypt Today, (London: Iard Bentley and Son, 1892), 163.
16. For detailed names of canals, dams, regulators in the Delta see W. Willcocks, 'In Egypt during the Forty years of the British Occupation,' Bulletin de l'Institut d' Egypte, T. viii - session (1925-26), 31; J.D. Atkinson, Handbook of Egyptian Irrigation, (Cairo: Government Press, 1934), passim.
17. Appendix, Tables 2 and 6.
18. All figures given in the paragraph are from Crouchley, Economic Development, 152-153. Agricultural land was the land potentially useful for agriculture; cultivated area was the land actually used for farming. It is less than the agricultural land.
19. Appendix, Tables 6 and 7.
20. Figures in the above lines come from Crouchley, Economic Development, 150. For area under cotton in Lower Egypt between 1884 and 1913 see Owen, Cotton and the Egyptian Economy 1820-1914, 184 and 186.
21. Appendix, Tables 5 and 6. The figures do not show what is directly appropriated by the state but the value of what is exported out of the country. The state gets substantial amount of this through its various taxes like land tax, transport tax, customs etc. see Owen, Cotton and the Egyptian Economy 1820-1914, 228-235.
22. Richmond, Egypt 1798-1952, 156.
23. Figures for state and private railways come from Cromer, Modern Egypt, 2: 313. Also see on the same page footnote 2; Command Papers for 1902, 20.
24. Cromer, Modern Egypt, 2: 407-419.
25. Cromer, Modern Egypt, 2: 397-405.
26. Appendix, Table 3; Crouchley, Economic Development, 161. Small-scale farmers with between one and five feddans, in 1895, 738,835, and in 1913, 1,556,310.

27. H.H. Ayrout, The Fellaheen, (Cairo: R. Schindler, 1945), 36-37; Z.Y. Hershlag, Introduction to the Modern Economic History of the Middle East, (Leiden: E.J. Brill, 1964), 115. Cromer reduced taxes per head from £1.1s 1½d in 1882 to 15s. 2d in 1902 and 9s. 6½d in 1905, and by 1913 it was 9s. 3½d.
28. Command Papers for 1902, 61; Bent Hansen, 'The Distributive shares in Egyptian Agriculture, 1897-1961', International Economic Review, 9, 2 (June 1968), 177.
29. For details see Milner, England in Egypt, 97.
30. Cromer, Modern Egypt, 2: 452.
31. Owen, 'The Attitudes of British Officials', Cook(ed), Studies in Economic History, 490.
32. Owen, 'The Attitudes of British Officials', 490.
33. D.C. Mead, Growth and Structural change in the Egyptian Economy, (Homewood: Richard D. Irwin, 1967), 294, Table 11-A-1. Total population of Egypt: 1882, almost seven million; 1907, eleven million. Almost ninety per cent of this population was concentrated in Lower Egypt, as shown by the regional breakdown in the Table.
34. Cromer is accused of failing to industrialize Egypt. There is a long debate on this issue in the following sources: E.R.J. Owen, 'Lord Cromer and the Development of Egyptian Industry 1883-1907' Middle Eastern Studies 2,4 (July 1966), 282-301; G. Baer, Egyptian Guilds in Modern times, (Jerusalem: n.p., 1964), 137; C. Issawi, Egypt at Mid-century, (London: n.p., 1954), 137; A.E.I. El-Gritly, 'The Structure of Industry in Modern Egypt', L'Egypte Contemporaine 241-242 (Nov-Dec 1947), 367.
35. Appendix, Table 7.
36. T. Symons, Britain and Egypt. The Rise of Egyptian Nationalism, (London: Cecil Palmer, 1925), 27-66.
37. Appendix, Table 6, for average price per kantar in 1908-9 and cotton yields for 1909-10; Appendix, Table 5, for exports in 1908; Appendix, Table 2, for reduced cultivated area during 1907-10.
38. See details, William Willcocks, Egyptian Irrigation and the Public Health, (Cairo: The Nile Mission Press, 1927), 5-8.
39. Crouchley, Economic Development, 150-152.
40. Tignor, Modernization in Egypt, 291-318; Richmond, Egypt 1798-1952, 158.

41. Tignor, Modernization in Egypt, 234-235. Petite culture is small-plot farming.
42. G. Baer, A History of Landownership in Modern Egypt 1800-1950, (London: Oxford University Press, 1962), 89; P.J. Vatikiotis, The Modern History of Egypt, (London: Weidenfeld and Nicolson, 1969), 208. This law was based on the Punjab Land Alienation Act of 1900, in India. It prohibited the sale of land by those working it to money lenders and shopkeepers without official permission even in satisfaction of a debt.
43. Generally, land for fellaheen had increased as indicated by the following figures: by 1913, land below five feddans, land between five and ten feddans and land between ten and twenty feddans, all increased; while land between twenty and thirty feddans, land between thirty and fifty feddans and land above fifty feddans, all reduced. Compare the two tables of Land Distribution in 1900 and 1913, Tignor, Modernization in Egypt, 241. Also Appendix, Table 3.
44. Owen, 'The Attitudes of British officials', 495.
45. Lord Lloyd, Egypt since Cromer, 2 vols. (New York; Ams Press, reprinted 1970), 1: 376-379.
46. Different cotton prices are given as follows: twelve dollars per kantar 1914, thirty-four dollars per kantar 1917 from J. Marlowe, Anglo-Egyptian Relations 1800-1953, (London: The Crescent Press, 1954), 197; M.M. Anis, 'A Study of the National Income of Egypt', L'Egypte Contemporaine xli, 261-262 (1950), 744: Appendix, Table 6, war years. The British government purchased the entire 1818 cotton crop at forty-two dollars per kantar. In 1919 the crop was selling at two hundred dollars per kantar; Lloyd, Egypt since Cromer, 1: 244 footnote 1.
47. Appendix, Table 5 and 6. Also, A.E. Cranchley, 'The visible balance of Trade since 1884', L'Egypte Contemporaine xxvi, 155-156 (Mars - Avril 1935), 494-495. Trade balances, 1914, £8,047,000; 1919, £44,606,000.
48. Appendix, Table 3. The increase for less than 1 feddan land was during the period 1910-1920 mostly during the 1914-18 war.
49. Cranchley, Economic Development, 185.
50. Lloyd, Egypt since Cromer, 1: 237. In 1917, 100,000 fellaheen were recruited into Labour Corps, 23,000 of them were serving in France.
51. Marlowe, Anglo-Egyptian, 197. In 1917, 30% of the irrigated land was under cotton.

52. For this reason, there is more material on the struggle for independence in Egypt during this time than on agriculture.
53. Owen, Cotton and the Egyptian Economy 1820-1914, 229.

CHAPTER THREE

THE IMPACT OF BRITISH AGRICULTURAL POLICIES IN LOWER EGYPT

The first chapter looked at agriculture in Egypt since the times of Dynastic Egypt up to 1882. It showed how agriculture was transformed from basin irrigation system dependent on grain cultivation to an all-year irrigation system dependent on an industrial crop - long-staple cotton. The second chapter examined the agricultural development in Egypt during the forty years of British rule, from 1882 to 1922. The chapter discussed the policies and practice of British rule regarding agriculture in Lower Egypt. It outlined the British policies on agriculture in the Delta and how such policies were greatly enforced in their favour and to some extent for the benefit of the fellaheen.

This concluding chapter assesses the impact and achievements of British policies on agriculture in the Delta.

There is no doubt that the forty years of British rule in Egypt led to an increase in agricultural development. The British began their agricultural development from the stage where Mohammed Ali and his successors stopped. The British did not introduce perennial irrigation or commercial cotton cultivation in Egypt. These were Mohammed Ali and his French irrigation engineers' introductions. However, it was the British who improved the quality of agriculture and extended land under agriculture exceptionally high.

During the period of British colonial rule, the Nile River was harnessed behind dams to store water. The number of barrages to raise the water level was increased; and drains and pumps for carrying water and dykes for protecting the fields against floods were also increased.¹

These agricultural developments brought additional changes in rural Egypt and in the daily lives of the peasants. For instance, by the end of British rule, perennial irrigation started by Mohammed Ali had completely replaced the old basin irrigation. This meant more work all the year for the fellaheen. They also had to master new problems such as crop rotation, chemical fertilization of the crops, and drainage problems.

In some parts of the Delta, mechanization of agriculture was in an advanced stage by the end of the British rule in 1922. This was true on the estates of the rich landowners. The fellaheen improved their traditional agricultural implements. For example, in many rural areas, where shadufs or saqias were in use before 1882, peasants began using steam pumps during British rule. In all, it is important to look at advantages and benefits of perennial irrigation as being the main contribution of Britain to Egypt. The other contributions were not as central to the life of Egyptians and not as directly connected to agricultural development as perennial irrigation.

The technical assistance that the British rendered to the fellaheen made some of them become capitalist farmers, possibly reaching a level equivalent to that of the Kulaks.² Consequently, differentiation among the fellaheen particularly those in rural districts increased and divided them into four distinct groups. These were: peasants who had been proletarianised and reduced to sources of cheap labour, especially the ones in urban areas; peasants who had become sharecroppers or tenants; rich peasants who established themselves as capitalist farmers exploiting the labour of fellow peasants; and the poor peasants forced to sell their labour.³ The rich fellaheen became useful to the new government after 1922 in as far as agricultural development was concerned.

Through agricultural development, British officials in Egypt were able to generate enough funds to pay all debts before they left the country. By 1923, the country had a surplus of seventeen million pounds excluding the country's revenue of thirty-four million pounds. Thus, the policy of improving the country's weak financial position was achieved. This was of course to the benefit of multi-national investors in the first instance, although perhaps also to the advantage of groups of Egyptians as well.

However, investments outside agriculture were coincidental and followed the typical pattern that characterized export economies. These included the provision of necessities for trade or supply services to the beneficiaries of the export boom. Thus, coincidentally, the transport system was developed by both public and private enterprise. Railways, canals and harbours facilitated the transfer of the crops from the interior to the main seaports and shipment from there to world markets. Cotton ginning and pressing factories were erected to reduce the weight and bulk of cotton, hence transport costs. Foreign merchants established banks and commercial firms. Later, urbanisation absorbed capital in construction and provision of public facilities.⁵ These are all typical features of underdevelopment or a colonial dependent situation.

Finally, in spite of the difficulties the British rule faced in implementing the policies on agriculture in the Lower Egypt, the main objectives in the agricultural development were achieved. The impact of their rule is seen in the numerous landmarks they put up in the Delta and along the Nile River in their efforts to improve agriculture in Lower Egypt. The secret of the success was perhaps due to the strength of the British state, based on industrial capitalism, being

able to pay its agents and employees of the empire so that there was no local super-exploitation by a corrupt bureaucracy, as under Ottoman days. The success was also possibly due to the fact that all British officials in Egypt recognised the importance of the Nile and the central role of agriculture. This made them have a consistent policy throughout their period of occupation in Egypt. It also made them have a uniform approach to agricultural problems. More important, nearly all British officials in Egypt had a common background: they had previously served in India. This included even the first generation of irrigation engineers in Egypt. They all had experience and were more likely to do better in Egypt, learning from their past mistakes in India.

Within the limited space, this thesis has attempted to show why the British policies on agriculture in Egypt were formulated and how some of them were successfully implemented while others had a few setbacks making them be partially successful. The thesis has also shown that it is one thing to make a policy and another thing to make the policy work, let alone to be successful, especially when the policy-makers are politically, scientifically, socially and culturally different from the subjects for whom the policies were meant. The thesis has demonstrated how European powers, Britain in particular, tied Egypt's agricultural economy to theirs in Europe. It was through such contacts in trade with Europe that in the long run created an impetus for Britain to occupy the country for forty years. The British developed the sectors of the Egyptian economy most useful to them, such as agriculture, infrastructure, financial reform and marketing facilities. This was the nature of colonial domination, practised not only in Egypt but in other areas under British rule.

Chapter Three - Notes

1. See Map Three for dam and barrages along the Nile River.
2. Kulaks: "rich peasants" in Russia (later Union of Soviets Socialist Republic - U.S.S.R.).
3. H.H. Ayrout, The fellaheen, (Cairo: R. Schindler, 1945), passim.
4. W. Willcocks, 'In Egypt During the Forty years of the British Occupation', Bulletin de l'Institut d' Egypte, T. viii - session (1925-1926), 31.
5. R. Mabro, The Egyptian Economy 1952-1972, (Oxford: Clarendon Press, 1974), 235.

STATISTICAL APPENDIX

TABLE 1

RELATIVE PROFITABILITY OF THE PRINCIPAL CROPS PER
TEN FEDDANS DURING THE REIGN OF MUHAMMED ALI

Crop	Expense of Cultivation	Value of Crop	Profit
	Piastres	Piastres	Piastres ¹
Sugar	1806	4522	2716
Indigo	2162	3384	1222
Rice	2043	2749	706
Cotton	841	1201	360
Linseed (flax)	373	938	565
Onions	153	528	375
Wheat	117	450	333
Beans	78	364	286
Trefoil	40	306	266
Barley	63	191	128

1. The original figures were in Patak a standard coin used in Ottoman Egypt. It was valued at $2\frac{1}{4}$ Piastres. The figures above are to the nearest whole number, after conversion from Patak.

Source: A.E. Crouchley, The Economic Development of Modern Egypt, (London: Longmans, 1938), 59.

TABLE 2
DEVELOPMENT OF CULTIVATED AREA AND CROP AREA¹
1813 - 1923

Year	Cultivated Area	Crop Area	Population
	Feddans	Feddans	
1813	3,054,710	-	2,460,200
1821	2,031,905	-	2,536,400
1835	3,500,00	1,856,000	2,610,000
1840	3,856,226	-	3,560,000
1852	4,160,169	-	4,476,440
1862	4,053,347	-	4,490,000
1873	4,624,221	-	4,510,000
1877	4,742,610	4,762,178	5,550,000
1881	4,714,406	-	7,440,000
1885	4,839,673	-	8,100,000
1890	4,941,488	-	8,540,000
1894-95	4,874,456	6,431,808	9,550,000
1899-1900	5,231,298	7,160,804	9,734,000
1904-05	5,403,891	7,563,119	11,190,000
1909-10	5,345,352	7,711,844	11,287,359
1914-15	5,308,890	7,825,922	12,750,918
1919-20	5,305,236	7,806,793	13,222,000
1922-23	5,387,385	8,103,845	13,663,000

1. The crop area may exceed area under cultivation because the same land may bear two or more crops per year. The figures above are five-yearly intervals. For more details see the sources.

Source: Crouchley, Economic Development, 51 and 259; D.C. Mead, Growth and Structural Change in the Egyptian Economy, (Homewood: Richard D. Irwin, 1967), 294 and 302; E.R. Owen, Cotton and the Egyptian Economy 1820-1914. A Study in Trade and Development, (Oxford: Clarendon Press, 1969), 237; A.R. Omran(ed), Egypt: Population Problems and Prospects, (Chapel Hill: Carolina Population Centre, University of North Carolina, 1973), 13. Population figures are estimates.

TABLE 3

DEVELOPMENT OF LAND OWNERSHIP 1900-1920, SHOWING NUMBER
OF LANDOWNERS AND AREA HELD IN DIFFERENT CLASSES¹

Size of holding (Feddans)	Particulars	1900	1910	1920
Less than 1	Number of owners		782,639	1,207,694
	Total area held (Feddans)	-	364,290	485,045
1 - 5	Number of owners	761,337 ²	464,442	506,025
	Total area held	1,113,411	1,005,322	1,064,137
5-10	Number of owners	80,171	76,139	79,767
	Total area held	560,195	530,231	551,276
10-20	Number of owners	39,710	36,707	38,707
	Total area held	550,774	507,050	533,563
20-30	Number of owners	12,267	11,233	11,866
	Total area held	301,334	274,439	287,021
30-50	Number of owners	8,990	8,390	9,190
	Total area held	344,765	323,883	352,783
Over 50	Number of owners	11,930	12,414	13,512
	Total area held	2,243,573	2,458,574	2,261,527
Totals	Number of owners	914,414	1,391,964	1,866,761
	Total area held	5,114,052	5,463,789	5,535,352

1. No detailed figures are available previous to 1900. These figures include all privately owned land excluding State Domain.

2. Separate figures for holders of one feddan and less are not available for 1900. They are included in the holders of less than 5 feddans.

Source: Crouchley, Economic Development, 258.

TABLE 4

COTTON EXPORTS AND PRICES 1821-1922

Year	Exports	Average Price per Kantar
	Kantars ¹	Rial ²
1821	944	16
1822	35,108	15½
1823	159,426	15½
1824	228,078	17
1825	212,318	16
1826	216,181	13
1827	159,642	13
1828	59,255	13
1829	104,920	12
1830	213,585	12
1831	186,675	10½
1832	136,127	15
1833	56,067	25
1834	143,892	30¾
1835	213,604	25¼
1836	243,230	18½
1837	315,470	13
1838	238,833	15
1839	134,097	18¼
1840	159,301	13
1841	193,507	13¼

Year	Exports	Average Price per Kantar
1842	211,030	10
1843	261,064	$7\frac{3}{4}$
1844	153,363	18
1845	344,955	6
1846	202,040	$10\frac{1}{2}$
1847	257,492	10
1848	119,965	7
1849	257,510	10
1850	364,816	$11\frac{1}{4}$
1851	384,439	$8\frac{3}{4}$
1852	670,129	$10\frac{1}{2}$
1853	477,390	10
1854	477,905	$8\frac{1}{2}$
1855	520,886	$8\frac{1}{2}$
1856	539,885	$9\frac{1}{4}$
1857	490,960	$10\frac{3}{4}$
1858	519,537	$16\frac{1}{8}$
1859	502,645	$12\frac{3}{4}$
1860	501,415	12
1861	596,200	12
1862	721,052	13
1863	1,181,888	23
1864	1,718,791	$36\frac{1}{4}$
1865	2,001,169	45

Year	Exports	Average Price per Kantar
1866	1,288,762	21 $\frac{1}{4}$
1867	1,260,946	35 $\frac{1}{4}$
1868	1,253,455	22 $\frac{1}{2}$
1869	1,289,714	19
1870	1,351,797	22 $\frac{1}{2}$
1871	1,966,215	19 $\frac{1}{2}$
1872	2,108,500	15 $\frac{3}{4}$
1873	2,013,433	21
1874	2,575,648	19
1875	2,206,443	19 $\frac{1}{2}$
1876	3,007,719	15 $\frac{1}{2}$
1877	2,439,157	13 $\frac{7}{8}$
1878	2,583,610	13
1879	1,680,595	16 $\frac{3}{8}$
1885 ³	3,189,000	n.a. ⁴
1886	3,041,000	n.a
1887	3,067,000	n.a
1888	2,692,000	n.a
1889	3,206,000	n.a
1890	3,328,000	n.a
1891	4,263,000	n.a
1892	5,085,000	n.a
1893	4,480,000	n.a
1894	5,403,000	n.a

Year	Exports	Average Price per Kantar
1895	5,264,000	2.5 ⁵
1896	5,173,000	2.0
1897	5,720,000	1.5
1898	5,990,000	1.7
1899	6,679,000	2.4
1900	5,427,000	2.7
1901	6,123,000	2.0
1902	6,652,000	2.7
1903	5,589,000	3.3
1904	5,913,000	2.7
1905	6,627,000	3.1
1906	6,697,000	3.8
1907	6,859,000	3.6
1908	6,348,000	3.0
1909	6,952,000	4.6
1910	6,009,000	4.1
1911	6,638,000	3.4
1912	8,307,000	3.6
1913	6,973,000	3.8
1914	5,910,000	2.4
1915	6,899,000	3.8
1916	5,417,000	7.5
1917	4,074,000	7.7
1918	5,020,000	7.4

Year	Exports	Average Price per Kantar
1919	6,709,000	17.5
1920	4,001,000	6.9
1921	4,792,000	6.8
1922	6.479,000	6.1

1. A kantar is equal to 45 kilograms. See glossary
2. The rial is equal to 20 piastres. See glossary
3. Figures for the years between 1879 and 1885 not available.
4. n.a figures not available.
5. From 1895 to 1922, average price per Kantar is in Egyptian pounds.

Source: Crouchley, Economic Development, 262; Mead, Growth and Structural Change, 359-360.

Year	Merchandise		Specie		Balances	
	Imports	Exports	Imports	Exports	Merchandise	Specie
1890	8,081	12,209	2,971	2,085	+ 4,128	- 886
1895	8,390	12,949	4,319	2,322	+ 4,559	-1,997
1900	14,112	17,353	4,115	2,603	+ 3,241	-1,512
1905	21,549	20,660	4,797	3,887	- 889	- 910
1910	23,509	29,342	13,008	7,096	+ 5,833	-5,912
1915	19,365	26,884	722	823	+ 7,519	+ 101
1920	101,150	88,010	1,130	21	-13,140	-1,109
1922	43,272	51,366	132	22	+ 8,094	- 110

1. The Specie balances must be treated with caution. There were many sources of unrecorded exports in pre-war days.

2. Balances: + indicates excess exports, - indicates excess in imports.

3. n.a. figures not available

4. From 1879 onwards, the exports include re-exports.

Source: Crouchley, Economic Development, 266-68. The figures above are five-yearly intervals.
For more details see the source.

TABLE 5

FOREIGN TRADE OF EGYPT 1800-1922
(in thousands of pounds Egyptian)

Year	Merchandise		Specie ¹		Balances ²	
	Imports	Exports	Imports	Exports	Merchandise	Specie
1800	£E.000 269	£E.000 288	£E.000 3 n.a.	£E.000 n.a	£E.000 + 19	£E.000 -
1823	656	1,455	n.a	n.a	+ 799	-
1831	1,529	1,609	n.a	n.a	+ 70	-
1836	2,612	2,142	n.a	n.a	- 470	-
1845	1,007	1,747	n.a	n.a	+ 740	-
1850	1,621	2,043	n.a	n.a	+ 422	-
1855	1,527	3,286	n.a	n.a	+ 759	-
1860	2,605	2,536	n.a	n.a	- 69	-
1865	5,753	13,046	5,025	2,793	+7,293	-2,232
1870	4,503	8,681	3,005	3,255	+4,178	+ 250
1875	5,619	13,333	n.a	n.a	+7,714	n.a
1879 ⁴	6,113	14,234	5,476	781	+8,121	-4,695
1885	8,989	11,743	3,915	1,294	+2,754	-2,621

TABLE 6

COTTON STATISTICS 1880-1922

Year	Area Under Cotton	Average Yield per Feddan	Crop	Exports	Average Price per Kantar	Value of Cotton Exports (including seed)	Total Exports (Merchandise)
	'000 Feddans	Kantars	'000 Kantars	'000 Kantars	Talaris ¹	£E.000	£E.000
1879-80	950	3.29	3,124	3,000	14.52	10,202	14,234
1884-85	1,147	3.13	3,591	3,540	12.37	11,043	12,553
1889-90	1,058	3.06	3,238	3,203	13.40	9,799	12,066
1894-95	1,024	4.51	4,619	4,840	8.46	8,484	12,078
1899-1900	1,153	5.64	6,510	6,512	10.84	15,565	15,659
1904-05	1,437	4.39	6,313	6,376	12.18	17,127	20,811
1909-10	1,597	3.13	5,001	5,046	21.49	22,825	25,991
1914-15	1,755	3.67	6,451	6,319	12.01	17,657	23,757
1919-20	1,574	3.54	5,572	6,338	87.81	105,433	75,858
1922-23	1,801	3.73	6,713	7,173	30.71	46,611	48,705

1. Talari is equal to 20 piastres. See glossary

Source: Crouchley, *Economic Development*, 263-4. The figures shown above are five-yearly intervals.
For more details see the source.

TABLE 7

LAND OCCUPIED BY PRINCIPAL CROPS 1898-1923
(Expressed as a percentage of total crop area)

Year	Cotton	Maize	Wheat	Bersim	Beans	Barley	Rice	Sugar Cane
	%	%	%	%	%	%	%	%
1898-99	16.40	22.18	17.65	22.49	9.07	7.62	3.09	1.23
1903-04	18.94	23.43	16.47	21.87	8.88	6.25	2.98	0.88
1908-09	20.83	23.42	16.28	22.05	7.39	5.52	3.54	0.57
1913-14	23.19	24.15	16.55	20.17	5.66	5.06	0.56	0.64
1914-15	15.16	22.83	19.60	20.26	1.97	5.69	4.08	0.67
1915-16	21.73	22.08	18.30	19.55	6.60	5.55	1.94	0.78
1916-17	21.82	21.12	14.00	22.66	6.14	6.23	3.42	0.81
1917-18	16.82	22.32	15.84	24.98	6.03	4.15	4.75	0.81
1918-19	20.45	22.45	16.58	23.15	6.56	4.47	1.88	0.74
1919-20	23.41	23.91	14.69	22.18	5.36	4.20	2.04	0.66
1920-21	16.03	24.93	17.43	22.52	6.12	4.71	3.87	0.79
1921-22	21.94	23.88	17.82	21.52	5.81	4.40	0.60	0.76
1922-23	21.17	22.17	18.27	21.75	5.81	4.75	2.21	0.68

Source: Crouchley, Economic Development, 261.

SELECTED BIBLIOGRAPHY

- Abu-Nasr, J.M. A History of the Maghrib. Cambridge : Cambridge University Press, 1978.
- Anis Amin, M. 'A Study of the National Income of Egypt', L'Egypte Contemporaine xli, 261-262 (Nov-Dec 1950), 744.
- Atkinson, J.D. Handbook of Egyptian Irrigation. Cairo: Government Press, 1934.
- Ayrout, H.H. The Fellaheen. Cairo: R. Schindler, 1945.
- Baer, G. A History of Landownership in Modern Egypt 1800-1950. London: Oxford University Press, 1962.
- _____ Egyptian Guilds in Modern times. Jerusalem, n.p., 1964.
- _____ Studies in the Social History of Modern Egypt. Chicago and London: The University of Chicago Press, 1969.
- Beaver, S.H. and Stamp, D. A Regional Geography for Advanced and Scholarship Courses: Part II. AFRICA. London: Longmans, 1966.
- Bonne, A. The Economic Development of the Middle East. An outline of planned Reconstruction after the war. London: Kegan Paul, Trench Trubner, 1945.
- Brown, R.H. History of the Barrage at the Head of the Delta of Egypt. Cairo: F. Diemer, 1896.
- Craig, J.I. 'Statistics', L'Egypte Contemporaine xxvi, 153-154 (Jan-Fev 1935) 115-145.
- Cook, M.A. (ed). Studies in the Economic History of the Middle East from the rise of Islam to the present day. London: Oxford University Press, 1970.
- Colvin, A. The Making of Modern Egypt. London: Thomas Nelson, 1906.
- Cromer, Lord. Modern Egypt, 2 vols. London: Macmillan, 1908.
- Crouchley, A.E. 'The visible Balance of Trade since 1884', L'Egypte Contemporaine xxvi, 155-156 (Mars-Avril 1935), 491-512.
- _____ The Economic Development of Modern Egypt. London: Longmans, 1938.
- _____ 'A century of Economic Development 1837-1937. (A Study in Population and Production in Egypt), L'Egypte Contemporaine xxx, 182-183 (Fev-Mars 1939), 133-155.

- El good, P.G. Egypt. London: Arrowsmith, 1935.
- El-Gritly, A.A.I. 'The Structure of Industry in Modern Egypt', L'Egypte Contemporaine 241-242 (Nov-Dec 1947), 367.
- Fakhouri, H. Kafr El-Elow. An Egyptian Village in Transition. Chicago: Holt, Rinehart and Winston, 1972.
- Gray, R.(ed). The Cambridge History of Africa Volume 4 from c.1600 to c.1790. Cambridge University Press, 1975.
- Habberton, W. and Roth, L.V. Man's Achievements Through the Ages n.p. Laidlaw Brothers, 1956.
- Hansen, B. 'The Distributive Shares in Egyptian Agriculture, 1897-1961, International Economic Review 9, 2 (June 1968) 175-194.
- Hershlag, Z.Y. Introduction to the Modern Economic History of the Middle East. Leiden: E.J. Brill, 1964.
- Holt, P.M.(ed). Political and Social Change in Modern Egypt. Historical Studies from the Ottoman Conquest to the United Arab Republic. London: Oxford University Press, 1968.
- Issawi, C. Egypt: An Economic and Social Analysis. London: Oxford University Press, 1942.
- _____ Egypt at Mid-century. London: n.p. 1954.
- _____ 'Egypt since 1800: A Study in lop-sided Development', The Journal of Economic History xxi, 1 (March 1961), 1-25.
- _____ Egypt in Revolution. An Economic Analysis. London: Oxford University Press, 1965.
- Kedourie, E.(ed). The Middle Eastern Economy. Studies in Economics and Economic History. London: Frank Cass, 1977.
- Low, S. Egypt in Transition. London: Smith, Elder and Company, 1914.
- Lloyd, Lord. Egypt Since Cromer, 2 vols. New York: Ams Press edition, 1970.
- Mabro, R. The Egyptian Economy 1952-1972. Oxford: Clarendon Press, 1974.
- Magdi, M. El-Kammash. Economic Development and Planning in Egypt. New York: Frederick A. Praeger, 1968.
- Marlowe, J. Anglo-Egyptian Relations 1800-1953. London: The Crescent Press, 1954.

- Marii, S. 'The Agrarian Reform in Egypt', International Labour Review lxi, 2 (February 1954), 140-150.
- Milner, A. England in Egypt. London: Edward Arnold, 1894.
- Mojuetan, B.A. 'Egypt from Mohammed Ali to Ahmadi Urabi', Tarikh 5, 2 (1977).
- Mokhtar, G. (ed). UNESCO General History of Africa. II. Ancient Civilizations of Africa. Berkeley: University of California Press, 1981.
- Mead, D.C. Growth and Structural Change in the Egyptian Economy. Homewood Richard D. Irwin, 1967.
- Oliver, R. (ed) The Cambridge History of Africa Volume 3 c.1050-c. 1600. London: Cambridge University Press, 1977.
- Owen, E.R.J. 'Lord Cromer and the Development of Egyptian Industry 1883-1907', Middle Eastern Studies 2, 4 (July 1966), 282-301.
- Cotton and the Egyptian Economy 1820-1914. A Study in Trade and Development. Oxford: Clarendon Press, 1969.
- Platt, R.R. and Hefny, M.B. Egypt: A compendium. American Geographical Society, 1958.
- Richmond, J.C.B. Egypt 1798-1952. Her Advance Towards a Modern identity. London: Methuen and Co. 1977.
- Rivlin, H.A.B. The Agricultural Policy of Muhammed Ali in Egypt. Cambridge, Massachusetts: Harvard University Press, 1961.
- Rolfe, D. 'Environmental Influences in the Agriculture of Ancient Egypt', The American Journal of Semitic Languages and Literature xxxiii, 3 (April 1917), 157-168.
- Royal Institute of International Affairs. Great Britain and Egypt 1914-1951. Information Papers Number 19. London: Oxford University Press, 1952.
- Stern, R.M. 'The Price Responsiveness of Egyptian cotton producers', Kyklos xii, 3 (1959) 375-384.
- Symons, M.T. Britain and Egypt: The Rise of Egyptian Nationalism. London: Cecil Palmer, 1925.
- Tignor, R.L. Modernization and British Colonial Rule in Egypt 1882-1914. Princeton: Princeton University Press, 1966.
- Uzoigwe, G.N. Britain and the Conquest of Africa. The Age of Salisbury. Michigan: University of Michigan Press, 1974.

Vatikiotis, P.J. The Modern History of Egypt. London: Weidenfeld and Nicolson, 1969.

Weiss, B.G. and Green, A.H. A Survey of Arab History. Cairo: The American University in Cairo, 1982.

Willcocks, W. 'In Egypt During the Forty years of the British occupation', Bulletin de l'Institut d'Egypte T. viii (1925-1926), 31.

————— Egyptian Irrigation and the Public Health. Cairo: The Nile Mission Press, 1927.

Wright, A.(ed). Twentieth Century Impressions of Egypt. Its History, People, Commerce, Industries and Resources. London: Lloyd's Greater Britain Publishing Co., 1909.

Official Government Publications

Egypt. Ministry of Finance. The effect of water on the cultivation of cotton. Experiments made during 1912. Survey Department Paper Number 31. Government Press, 1913.

Great Britain. Reports by His Majesty's Agent and Consul-General on the Finances, Administration and Condition of Egypt and the Soudan. /1902-1907/

GLOSSARY

Bey - A Turkish official rank lower than Pasha.

Feddan - An area of agricultural land equivalent to one and half acres. However, note that the size of a Feddan has been changing since 1800. At that time it was equal to 5,929 square metres, but for fiscal purposes it was equal to 5,353 square metres. In 1821 it was reduced to 4,441 square metres. In 1840 it was 4,083 square metres. In 1861 the Feddan was established at the size of 4,200 square metres. This is believed to have been used up to after independence.

Fellaheen (singular:Fellah) - As an Arabic term it only came to be in use in Egypt after A.D 650. It means peasants. The spelling is slightly different from one book to another.

Kantar(Qantar, Cantar) - An Egyptian unit of weight used to measure cotton and rice. No absolute standard was used but after 1836 it was usually equivalent to 45 kilograms.

Khedive - A Persian word meaning a Prince. It came to be used for rulers of Egypt from 1867 up to 1913.

Misr - An Arabic word meaning Egypt.

Pasha - An official rank in the Ottoman Empire often used to designate an office lower than that of the Sultan. For example Mohammed Ali was called the Pasha of Egypt.

Patak - Standard coin in Ottoman Egypt, valued at $2\frac{1}{4}$ piastres.

Sultan - Arabic word for the ruler of a dominion or a country. From 1914 the rulers of Egypt took the title of Sultan. This was because Egypt was separated from Turkey at the outbreak of the First World War in 1914. Egypt became a British Protectorate.

Saqia - Ox-powered water-raising machine with wheels and a chain of buckets.

Shaduf - Water-raising machine with a long pole worked by hand.

Vali - (Arabic: Wali), Turkish term to mean a ruler or provincial governor responsible to the Sultan. Mohammed Ali should have been called the vali of Egypt.

A NOTE ON CURRENCY

An Egyptian pound (£E or LE) is divided into 100 piastres. At the time under discussion, $97\frac{1}{2}$ piastres were equal to a British pound sterling (£1). The Egyptian pound was therefore equal to £1.0s.6d or a shade

over a British pound. A piastre was equal to about $2\frac{1}{2}$ d.

Unless stated a pound in the text refers to an Egyptian pound.
This applies to the Appendix as well.