United States
Department of
Agriculture

Economic
Research
Service

Foreign
Agricultural
Economic
Report
Number 169

Urbanization and Agricultural Policy in Egypt

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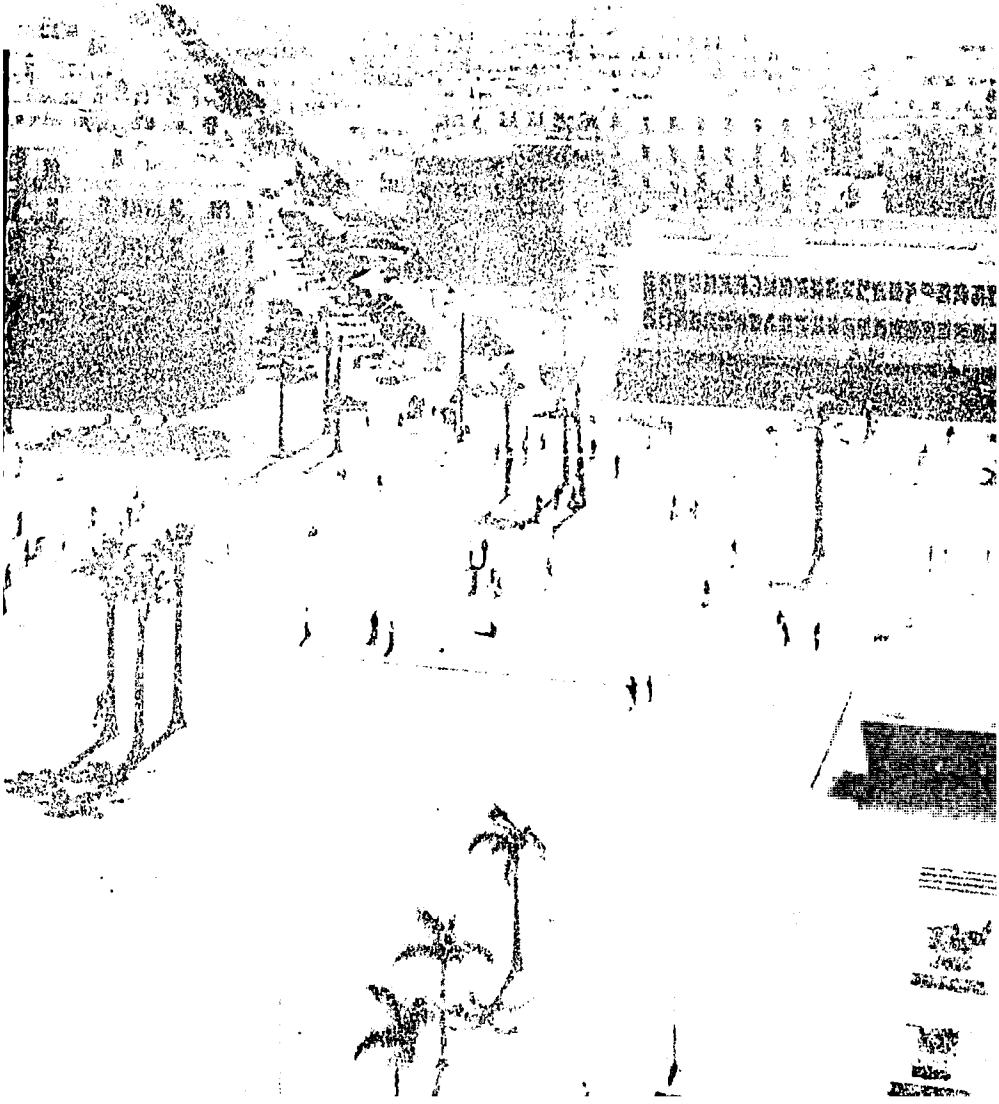

URBANIZATION AND AGRICULTURAL POLICY IN EGYPT.
By John B. Parker and James R. Coyle. U.S. Department of Agriculture, Economic Research Service, International Economics Division. Foreign Agricultural Economic Report No. 169

Abstract

Policies related to agricultural production procurement in Egypt have pushed people out of rural areas while food subsidies have attracted them into cities. Urban growth in turn has caused substantial cropland loss, increased food imports, and led to political and economic destabilization. This study examines the relationship between agricultural policy and the tremendous growth of urban areas, and proposes changes in Egypt's agricultual pricing, food subsidy, and land use programs.

Key words: Urbanization, cropland loss, urban growth, food imports, Egypt

Note: Cover photo is courtesy of the Egyptian Embassy, Washington, D.C.

Washington, D.C. 20250 September 1981

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Summary

Urban areas of Egypt are expanding rapidly, with 44 percent of all Egyptians living in urban areas in 1976, compared with 23 percent in 1937. The rapid growth of Egyptian cities largely results from the country's agricultural policies, although the total population is increasing rapidly also. Inexpensive food, more jobs, and better living conditions draw people to the cities, while forced production of certain commodities for less than market prices keeps rural incomes low. This study proposes changes in Egypt's agricultural policy, food subsidy, and land use programs to solve the problems caused by rapid urban growth.

Land tenure policies and traditional patterns of inheritance in Egypt have kept average farm size small, so that many farms are no longer economically viable. The Government's policies have required farmers to produce commodities such as wheat, which it buys at prices substantially below world market levels. These policies have kept rural incomes low and encouraged people to move from the countryside.

At the same time, Egypt's cities have offered better paying jobs, modern living, and inexpensive food which the Government subsidizes to keep the cities politically stable—at a cost of nearly $2 billion in 1980. Urbanization has cost not only funds for the subsidized commodities but also valuable cropland. With less than 6 million acres of cultivable land, Egypt has been losing 40,000 acres of cropland a year to urban uses. The land lost is usually the most productive.

To stem rural outmigration and slow the rate of cropland loss Egypt needs to reform its policies. Forced production of commodities, especially wheat, should be ended. Food subsidy programs should be targeted for the poor, and commodities subsidized should be restricted to basic items. Egypt also needs to step up its reclamation efforts, use improved irrigation techniques, and decide on a direction of growth for its cities.

Urbanization and Agricultural Policy in Egpyt

John B. Parker
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Agricultural economists

Introduction

The tremendous growth of urban areas in Egypt is closely related to the formulation of agricultural policies. Although the Egyptian Government officially wants to limit the movement of people out of rural areas into the cities, many agricultural policies directly and indirectly encourage it. Egyptians worry about the loss of valuable cropland to urban areas and want to increase domestic food production, but keep prices paid to farmers for their produce artificially low. While trying to keep food imports at a minimum, Egypt maintains extensive urban food subsidy systems which do not discourage the demand for imported food. It appears that the Egyptians are attempting to keep urban areas politically benign with subsidies, but at the expense of their economy.

This study focuses on the two problems of cropland loss and increased food imports which have resulted from urbanization, with an analysis of the reasons for urbanization. The study also looks at solutions to the problems arising from urban growth. Egypt must soon solve the problems of urbanization which are rapidly destablizing the country. Without solution, American interests in Egypt could well become complicated by the resulting growth in food aid needs.

Urban areas have always been the centers of importance in Egyptian society. In ancient and Muslim Egypt alike, they were the centers of political power and cultural advancement. Today, Egypt's cities are perhaps more important, for they are the centers both of political power and of political instability. The importance of urban areas in modern Egypt results from their extremely rapid growth and overall

large size. The changes in urban population are astounding (table 1). The Cairo metropolitan area grew from just over 2 million inhabitants to over 7 million during 1947-76. But besides Cairo, all major cities in Egypt saw substantial increases in population.

Giza, Kalyubia, and Shubra el Khema are among the fastest growing areas. All are part of the Cairo metropolitan area and provide

Table 1—Population of major Egyptian urban areas

City	Census year				Percentage change
	1947	1960	1966	1976	1947-76
	Thousands				*Percent*
Cairo	2,091	3,353	4,220	5,084	143.1
Giza	66	419	571	1,233	1,768.2
Kalyubia	130	NA	381	685	426.9
Shubra el Khema	NA	101	173	394	290.1
Cairo Metro	2,287	3,873	5,345	7,396	223.4
Alexandria	919	1,516	1,801	2,319	152.3
Mahalla el Kubra	116	188	225	293	152.6
Tanta	140	200	230	285	103.6
Port Said	178	245	283	263	47.8
Mansoura	102	167	191	258	152.9
Asyut	90	127	154	214	137.8
Zagazig	82	125	151	203	147.6
Suez	107	206	264	194	78.5
Damanhur	84	127	146	189	125.0
Fayum	74	112	134	167	125.7
Menia	70	100	115	146	108.6
Ismailia	68	116	144	146	114.7
Aswan	26	63	128	144	453.8
Shebein el Kon	42	NA	NA	103	145.2
Beni Suef	57	NA	NA	118	107.0
Suhag	43	NA	NA	102	132.7

NA = not available.
Source: *Population Census of Egypt*, 1947, 1960, 1966, and 1976.

housing for people who work in Cairo proper. The city of Aswan has also expanded substantially since 1947, though its growth slowed between 1966 and 1976. Aswan's growth has mainly been a result of building the Aswan Dam, and shows a reversal of what has traditionally been an outward migratory trend in Upper Egypt.

The only cities showing small or negative growth between 1966 and 1976 have been Port Said, Suez, and Ismailia. This however, has resulted from the Israeli occupation of the Sinai and not because of a reversal in trend. Since the Israeli withdrawal from the eastern part of the Sinai and the reopening of the Suez Canal, all three cities have again been growing rapidly.

Table 1 deals only with the large metropolitan areas in Egypt, which had populations over 100,000 in 1976. If the smaller cities with 20,000 to 100,000 people are examined, the trend toward urbanization is even more striking. The proportion of people living in Egyptian cities of 20,000 or more increased from 14.5 percent in 1897 to 43.9 percent in 1976. The trend toward living in larger urban areas is occurring throughout Egypt (table 2). Giza and Kalyubia have the greatest percentage living in large urban areas, but this is a result of their basic function as suburbs of Cairo. In all governorates (the administrative unit equivalent to a Province), however, at least 20 percent of the population in 1976 were living in cities.

There are many reasons for increased urbanization in Egypt, most of which are closely related to Egyptian agricultural policy. Since the fifties, Egyptian policy has been to procure rural agricultural produce at prices substantially lower than those on world markets. This has had a tendency to encourage migration from rural to urban areas. At the same time, Egyptian policy has been to provide food to urban areas at highly subsidized prices. This accommodates the new arrivals from the countryside and keeps them politically manageable.

But there are problems associated with these policies. While encouraging migration from rural areas, Government procurement

of agricultural products has discouraged expansion of agricultural production in both value and quantity terms. In addition, urban growth has meant the loss of a great deal of valuable cropland to housing, roads, and other urban uses (see fig. 1). In 1979 alone, this amounted to over 30,000 acres, mostly in the highly productive Nile Delta region of lower Egypt. This loss is especially acute since Egypt presently has less than 6 million acres available for cultivation, and desertland reclamation projects are adding little new land—only 19,000 acres in 1979.

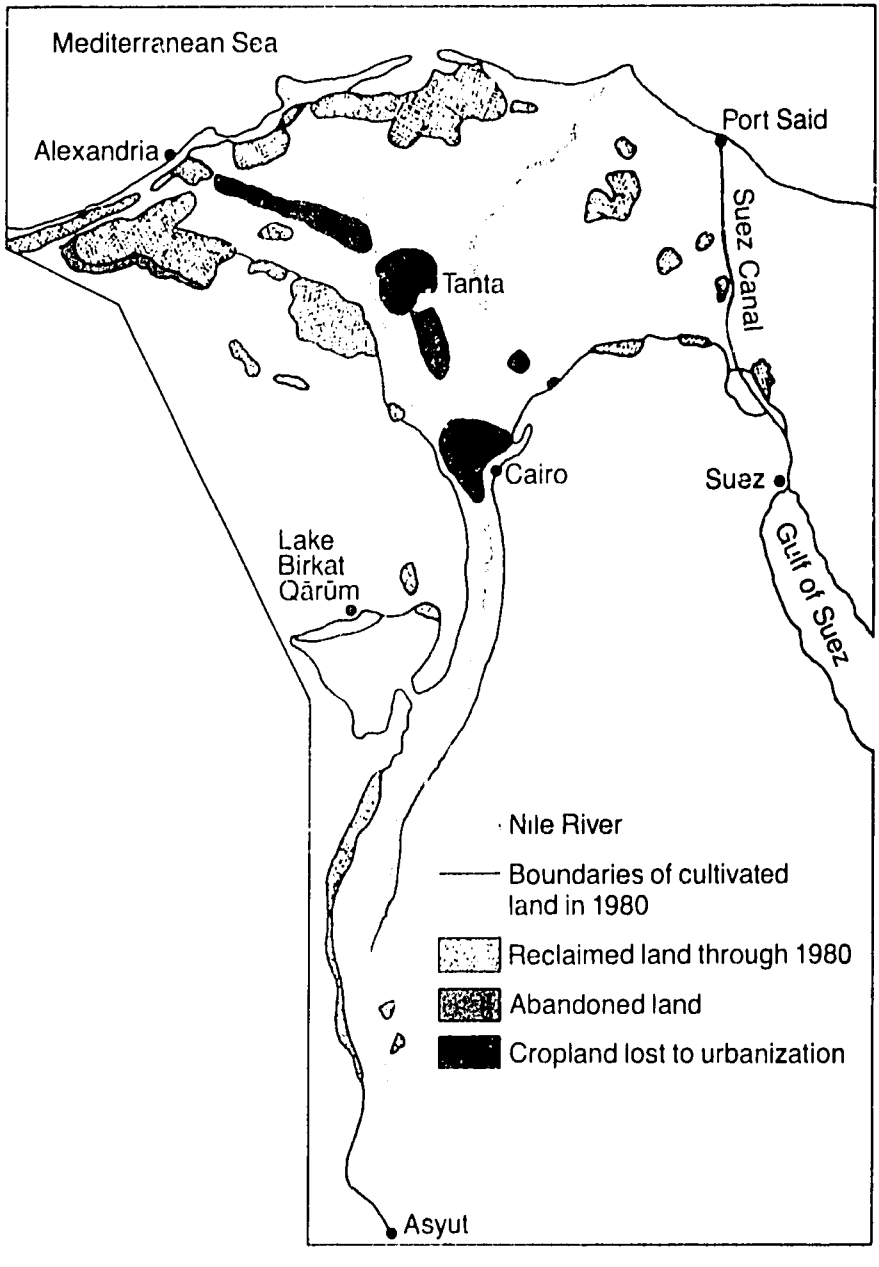
On the other hand, food subsidy programs for urban areas have also generated difficulties. From 1965 until February 1, 1989, the price of balady bread, a coarse pita-style bread weighing 135 grams, was 0.5 piastre (1 piastre = 1.43 U.S. cents). With inflation, the real price of this staple has decreased, causing a per capita

Table 2—Percentage of population living in urban areas, by governorate

Governorate[1]	1897	1917	1937	1947	1966	1976
			Percent			
Dakahlia	4.9	7.1	10.9	12.6	20.6	21.0
Sharkia	4.9	4.4	5.3	9.5	18.4	20.2
Kalyubia	0	0	12.9	15.5	31.5	40.9
Gharbia	6.9	9.9	13.2	19.4	31.6	33.4
Munufia	4.8	4.5	6.8	8.2	16.3	19.7
Behera	5.1	10.1	12.2	13.5	17.9	26.8
Aswan	0	15.9	26.5	31.6	35.1	37.0
Giza	0	0	5.5	11.0	39.2	57.6
Beni Suef	0	7.1	8.1	9.3	21.4	21.9
Fayum	16.2	17.4	14.2	14.8	22.0	21.2
Menia	4.6	4.6	5.5	13.0	19.9	21.0
Asyut	5.6	7.8	7.3	12.6	23.7	27.7
Suhag	4.1	10.3	13.1	13.4	19.9	21.1
Qena	3.9	5.2	9.9	14.6	19.0	22.9
All Egypt	14.3	17.3	22.9	29.4	41.2	43.9

[1]Includes nonmetropolitan governorates only.
Source: *Population Census of Egypt*, 1897, 1917, 1937, 1947, 1966, and 1976.

Figure 1—Reclaimed land, cropland loss, and abandoned land, Egypt, 1980



increase in demand. With more people in urban areas all demanding more food, and depressed domestic production, food imports have risen. In 1970, Egypt imported only 20 percent of its food needs. In 1979, that amount had risen to about 40 percent at a cost of $2.6 billion. The volume and cost of these imports have become serious problems.

Reasons for Urbanization

Urbanization in Egypt has mainly been the result of migration from the countryside. This migration has in turn been the result of a push-pull process. Many factors have been pushing people out of the countryside, including severe population pressures in the rural areas, fragmentation of farm holdings, and Government pricing policies which keep rural wages low. At the same time, there are factors which work to pull people into the cities, such as employment opportunities, the promise of cheap food, and the appeal of modern city life.

Population Growth and Composition in Egypt

The population of Egypt has increased more than four times since 1897, from 9.6 million to an estimated 41.8 million in 1980 (table 3). Between 1897 and 1947, the annual rate of growth was relatively low, averaging between 1.1 and 1.9 percent. Starting in the fifties, however, the rate of increase rose dramatically to 2.8 percent. This was mainly a result of improved health care in the rural areas which has led to a considerable decline in the death rate. The death rate, which was 17.8 per 1,000 in 1952, fell to an estimated 11 per 1,000 in 1980 (table 4). The greatest part of this success can be attributed to decreasing infant mortality.

The birth rate also decreased during this period, from 45 per 1,000 in 1952 to 38 per 1,000 in 1980. But this decrease has not been consistent. The lowest rate was 34.4 per 1,000 in 1972. Combined with the death rate of 14.5, this rate yielded the lowest net increase in population in Egypt since 1952. Since 1972, however, the birth rate has begun to rise while the death rate has still been falling, leading to an overall rise in the rate of natural increase in Egypt. In 1978 and 1979, the annual growth rate of the Egyptian

population was again up to 2.8 percent, and grew to 2.9 percent in 1980. These high numbers imply that Egypt's population will double in about 25 years.

Most of this population increase is occurring in the rural areas of Egypt. Rural areas in general have higher birth rates than urban areas. Families are traditionally large in the countryside, and in

Table 3—Population of Egypt

Year	Population	Year	Population
	Thousands		*Thousands*
1897	9,591	1965	29,389
1907	11,136	1966	30,146
1917	12,670	1967	30,830
1927	14,083	1968	31,542
1937	15,811	1969	32,271
1947	18,806		
		1970	33,017
1952	21,437	1971	33,780
1953	21,943	1972	34,560
1954	22,460	1973	35,358
		1974	36,175
1955	22,990	1975	37,011
1956	23,532	1976	37,866
1957	24,087	1977	38,845
1958	24,655	1978	39,882
1959	25,237	1979	41,010
1960	25,832	1980	41,800
1961	26,597		
1962	27,257		
1963	27,947		
1964	28,659		

Sources: 1897-1947, *Population Census of Egypt;* 1952-1979 Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt; 1980, United Nations estimate.

many cases, having a large number of children can still be an economic asset. But even though the natural rate of population increase is highest in rural areas, the net growth is not. Between 1966 and 1976, the urban areas grew at an average annual rate of 3 percent, while rural area ew by only 1.6 percent per year (table 5).

Table 4—Population growth rate during 1952-79, calculated from birth and death rates

Year	Birth	Death	Natural increase
		Number/1,000	
1952	45.2	17.8	27.4
1960	43.1	16.9	26.2
1961	44.1	15.8	28.3
1962	41.5	17.9	23.6
1963	43.0	15.5	27.5
1964	42.3	15.7	26.6
1965	41.7	14.1	27.6
1966	41.2	15.9	25.3
1967	39.2	14.2	25.0
1968	38.2	16.1	22.1
1969	37.0	14.5	22.5
1970	35.1	15.1	20.0
1971	35.1	13.2	21.9
1972	34.4	14.5	19.9
1973	35.7	13.1	22.6
1974	35.7	12.7	23.0
1975	36.0	12.1	23.9
1976	36.4	11.7	24.7
1977	38.4	11.9	26.5
1978	38.7	10.6	28.1
1979	39.0	10.7	28.3
1980	40.0	11.0	29.0

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

Land Fragmentation in Rural Areas

Another major reason for rural emigration is the severe fragmentation of landholdings occurring throughout Egypt. Many farms have become so small that they are no longer a

Table 5—Urban and rural distribution of population

Governorate	1966		1976	
	Urban	Rural	Urban	Rural
		Thousands		
Cairo	4,220	—	5,084	—
Alexandria	1,801	—	2,319	—
Port Said	283	—	262	—
Suez	264	—	194	—
Ismailia	182	162	166	186
Behera	353	1,625	653	1,864
Damietta	115	317	143	414
Kafr el Sheikh	212	906	292	1,112
Gharbia	600	1,301	766	1,528
Dakahlia	470	1,815	655	2,077
Sharkia	389	1,719	530	2,091
Munufia	238	1,220	367	1,374
Kalyubia	381	830	685	989
Giza	647	1,003	1,379	1,040
Fayum	200	735	276	864
Beni Suef	204	724	276	832
Menia	339	1,367	431	1,625
Asyut	336	1,082	470	1,225
Suhag	336	1,353	405	1,520
Qena	279	1,192	391	1,314
Aswan	183	338	230	390
Red Sea	38	—	48	8
New Valley	59	—	34	50
Matruh	124	—	51	62
Sinai	131	—	10	—
Total	12,385	17,691	16,098	20,559

— = not applicable.
Source: *Population Census of Egypt* 1966, 1976.

means of support. In Egypt, this fragmentation is partly a result of increasing population, but mainly a result of Egyptian Government policies and Muslim traditions.

When the Six Colonels under Gamal Abdal Nasser seized power in 1952, one of their first actions was to undertake a sweeping land reform. This was mainly done to break the power of the wealthy landlord class. Maximum landholdings were limited to 200 feddans (1 feddan = 1.038 acres), with sale of the excess permitted for short periods. Even with this provision, however, a great deal of land was confiscated by the new Government. Reforms occurred again in 1960 and 1965 when the limit of maximum holdings was lowered to 100 feddans.

Much of the land seized by the Government was distributed to very small or landless farmers. The amounts which these individuals received, however, were extremely small, usually less than 5 feddans. The number of farms which are less than 5 feddans has grown since 1952, while both the number of large farms and the amount of land these farms held have decreased dramatically (table 6). While perhaps desirable in terms of sociopolitical considerations, the economic viability of these small farms is questionable, and many people are moving to the cities in search of a better livelihood.

Another cause of land fragmentation has been the traditional Muslim pattern of inheritance. When a farmer dies, holdings are distributed among all the farmer's children, with the sons receiving twice that of the daughters. Given the large average size of Egyptian rural families, this means the holdings are so divided that no individual receives an economically viable plot of land. As a result, many family members sell their share to relatives and move to cities to find work. Alternatively, they retain title of the inheritance, leaving it to be worked by other family members, and expecting to use the land later as a retirement plot. The amount of land held by these absentee landlords in some areas may be as much as 30 to 40 percent of the total amount available.[4]

With fragmentation of landholding caused by Muslim tradition and policies to keep farms small, farms are becoming smaller. As the

[4]Estimate of the U.S. Agency for International Development.

farm size decreases, the livelihood it provides also decreases. People leave rural areas for the cities as a result.

Government Intervention in Agricultural Production

Although population growth and land fragmentation have pushed people out of rural areas, the factors most encouraging this migration have been a variety of Government policies. These policies deal with forced production of certain agricultural products and procurement of these products at less than market prices. While these policies provide a major source of revenue for the Egyptian Government, they are also a source of irritation for the countryside. Because the prices paid for many agricultural commodities are lower than they would be with free markets, and farmers are required to produce these goods, rural incomes are kept low. Many people migrate to the cities as a result.

Cotton is the crop most strictly controlled by the Government. Until the return of the Sinai oil fields from Israel in 1978, cotton was the major source of revenue for the Egyptian Government. Its production is overseen by the General Egyptian Cotton Organization. This group controls the area which is planted, and provides seed, fertilizer, and pesticides for production through a system of farmer cooperatives. Farmers must buy these inputs at rates which are generally quite high relative to the cooperative purchase price. After the cotton is harvested, the cotton organization purchases the entire crop. The price paid for the cotton, however, is substantially below the world market price (table 7).

The General Egyptian Cotton Organization distributes some of the cotton to domestic textile mills and exports the rest. The largest quantity was formerly exported, but now most goes to domestic textiles. Since cotton is sold to domestic textiles at prices only slightly higher than those paid to farmers, most revenue is obtained through export (table 8), and is paid to the Government, not the farmers. Incomes of the growers are thus lower than they might have been.

Wheat, rice, and corn were controlled in much the same way as cotton, with production overseen by the Ministry of Agriculture in concert with the cooperatives. Lately, however, all controls have been phased out on corn, and only about 15 percent of the wheat

Table 6—Distribution of landownership

Holding size	Before 1952 Land Reform Law				After 1952 Land Reform Law[1]			
	Land-owners	Area owned	Percentage of landowners	Percentage of area owned	Land-owners	Area owned	Percentage of landowners	Percentage of area owned
	1,000	*1,000 fed.*	*— Percent —*		*1,000*	*1,000 fed.*	*— Percent —*	
Less than 5 feddans	2,642	2,122	94.3	35.4	2,841	2,781	94.4	46.5
5-10 feddans	79	526	2.8	8.8	79	526	3.6	8.8
10-20 feddans	47	638	1.7	10.7	47	638	1.6	10.7
20-50 feddans	22	654	.8	10.9	30	818	1.0	13.7
50-100 feddans	6	430	.2	7.2	6	430	.2	7.2
100-200 feddans	3	437	.1	7.3	3	437	.1	7.2
More than 200 feddans	2	1,177	.1	19.7	2	354	.1	5.9
Total	2,801	5,984	100	100	3,008	5,984	100	100

continued

Table 6—Distribution of landownership — (Continued)

Holding size	After 1961 Land Reform Law[2]				Holdings in 1975			
	Land-owners	Area owned	Percentage of landowners	Percentage of area owned	Land-owners	Area owned	Percentage of landowners	Percentage of area owned
	1,000	*1,000 fed.*	— *Percent* —		*1,000*	*1,000 fed.*	— *Percent* —	
Less than 5 feddans	2,919	3,172	94.1	52.1	3,190	2,769	95	49.7
1-10 feddans	80	526	2.6	8.6	92	617	2.7	11.1
10-20 feddans	65	638	2.1	10.5	44	586	1.3	10.5
20-50 feddans	26	818	.8	13.5	23	682	.7	12.2
50-100 feddans	6	430	.2	7.1	7	520	.2	9.3
100 feddans	5	500	.2	8.2	2	398	.1	7.1
Total	3,101	6,084	100	100	3,358	5,572	100	100

Note: 1 feddan = 1.038 acres.
[1]Law limits holdings to a maximum of 200 feddans.
[2]Limiting holdings to 100 feddans per person.

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

crop is procured, although at a price lower than the international price (table 9). Rice is the only crop that is still fully controlled, but unlike cotton it now costs the Government money. When rice exports reached a peak of 772,000 tons in 1969, profits from exports were greater than losses from urban distribution. As domestic demand rose in the seventies, exports fell. About 1.4 of the 1.6 million tons of rice produced in Egypt in 1978 were purchased by the Government for $160 per ton. Of this, 1.2 million tons were sold in urban areas at $70 per ton, and about 200,000 tons were exported at $450 per ton. This represented a net loss of $50 million. But while the Egyptian Government lost money because of their urban food subsidies, the farmers were still not able to earn as much as was possible had farm prices reflected market conditions.

Urban Employment Opportunities

Forced production of crops has not been well received by Egyptian farmers, and receiving less than full market value for these crops has

Table 7—Egyptian domestic price and average export price for cotton

Year	Domestic price	Average export price
	Dollars/metric ton	
1970	496	1,176
1971	642	1,207
1972	635	1,263
1973	845	1,641
1974	925	2,908
1975	834	2,768
1976	981	2,389
1977	984	3,238
1978	997	2,597
1979	1,287	2,603
1980	1,312	2,987

Source: Agricultural Attache Reports, U.S. Embassy, Cairo; Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

added to their bitterness. With badly fragmented landholdings, population pressures, and low Government prices for produce, there are few opportunities in rural areas. The cities, however, have some jobs available, although not many. These jobs are a relatively new phenomenon (since the October 1973 War with Israel), but they are pulling many people into the cities.

Prior to the 1973 War with Israel, Egypt followed policies which restricted foreign investments and limited the number of Egyptians working abroad. These policies, initiated under Nasser, continued in the early Sadat years. Following the October War, however, there was a dramatic change in policy which encouraged foreign investment in Egypt, especially Arab investment, and allowed the employment of Egyptians in other Arab countries. These two factors greatly increased the availability of jobs in urban areas.

Table 8—Revenues derived from cotton exports

Year	Cotton production	Cotton exports	Cost of exported cotton procurement	Value of export sales	Government revenue
	1,000 metric tons		— — *Million dollars* — —		
1970	500	292.1	144.8	343.5	198.7
1971	510	333.4	214.0	402.5	188.5
1972	514	294.9	187.3	372.5	185.2
1973	490	300.7	254.1	493.4	239.3
1974	411	245.2	226.8	713.1	486.3
1975	382	185.2	154.5	512.6	358.1
1976	396	165.2	162.1	394.6	232.5
1977	399	143.9	141.6	465.9	324.3
1978	441	133.0	132.6	336.1	203.5
1979	482	147.0	189.2	382.6	193.4
1980	478	159.0	208.6	475.0	266.4

Source: Central Agency for Public Mobilization and Statistics; Agricultural Attache Reports, U.S. Embassy, Cairo.

The number of Egyptians who have left Egypt to work in other Arab countries is astounding. In 1973, some 350,000 Egyptians went abroad to work for at least part of the year. In 1980, it is estimated that over 3 million were abroad at some time during the year (table 10). Until 1977, most of these workers were in Libya. With the Egyptian-Israeli peace treaty and the subsequent cooling of relations with Libya, Saudi Arabia has become the major place of employment, followed by the United Arab Emirates and Kuwait.

The composition of the Egyptian work force abroad is varied. Not only have teachers and scientists left for better jobs, but also many carpenters, bricklayers, and cooks. The exodus of these workers, especially the less skilled ones, has created many job opportunities

Table 9—Egyptian domestic and international prices for wheat

Year	Egyptian domestic price		International price
	Fixed[1]	Farmgate[2]	U.S. gulf[3]
	U.S. dollars/metric ton		
1970	47.76	55.34	59.52
1971	47.76	50.62	63.19
1972	47.76	50.14	74.22
1973	47.76	54.53	139.24
1974	59.57	67.11	178.55
1975	66.72	73.40	149.16
1976	66.72	67.40	134.10
1977	66.72	77.41	105.08
1978	66.72	88.00	130.79
1979	94.88	92.00	175.10
1980	109.68	108.56	203.00

[1]Fixed prices are paid by the Government for the feddan quantity required under the marketing quota.

[2]Farmgate prices are the prices paid by the Government for wheat delivered over the quota.

[3]Price is for U.S. No. 2 hard winter wheat, f.o.b. gulf ports (calendar year average).

Source: Egyptian Ministry of Agriculture, Cairo.

Table 10—Egyptians working abroad

Year	Long term[1]	Short term[2]
	Thousands	
1973	100	250
1974	180	350
1975	332	500
1976	450	800
1977	650	1,200
1978	850	1,600
1979	1,000	1,850
1980	1,100	1,950

[1]Abroad 7 or more months each year.
[2]Abroad less than 7 months each year.

Source: USDA estimates, except 1975 long term, which is a World Bank estimate.

in Egyptian cities since most of those going abroad come from urban areas. These city jobs encourage people to leave the rural areas, although there are not enough jobs to absorb all the migrants.

The Egyptian economy as a whole has benefited from having workers abroad. Some important skills have been lost, but workers' remittances have been huge. In 1973, remittances added about $85 million to the Egyptian economy (table 11). With the relaxation of emigration policies, the amount immediately grew to $189 million in 1974. For 1980, the contribution of remittances to the Egyptian economy was an estimated $2 billion. The value of the remittances is estimated at over 50 percent of the value of Egyptian exports (table 11).

The funds obtained from remittances, as well as those available from foreign investments, have also created new jobs in Egypt. The number of people employed in nonagricultural sectors has increased significantly (table 12). Since 1973, construction has been the most rapidly growing area for employment (table 13). This was to be expected, since many Egyptians worked abroad hoping to earn enough money to build houses at home. Moreover, a favorite

Table 11—Remittances earned abroad

Year	Remittance	As percentage of exports	As percentage of imports
	Million dollars	*—Percent—*	
1973	85	9	4
1974	189	11	5
1975	367	23	7
1976	445	28	9
1977	900	53	19
1978	1,692	97	25
1979	1,800	75	26
1980	2,000	53	25

Sources: 1973–76 IMF consolidated balance of payments statements; 1978, Central Bank of Egypt; 1977, 1979, 1980 USDA estimates.

investment for foreign Arabs has been high-rise apartment buildings. Construction of these new houses and apartments has created many jobs. These, together with new jobs in other sectors created by the expanding economy, have been a major attraction of the cities.

Food Subsidies in Urban Areas

The promise of cheap food in the cities has also been a major incentive for rural outmigration. Since the early sixties, the Egyptian Government has developed an extensive program of food subsidies and rationing for the urban areas. These programs provide most food staples at extremely low prices, and in the case of bread, in almost unlimited quantities.

Food subsidies were originally used to provide urban areas with imported food at affordable prices. Imported food was needed because of insufficient domestic production and lack of marketing infrastructure. These agricultural imports were bought under concessionary financing provided by Title I of Public Law 480 (P.L. 480). In addition to wheat, Egypt also purchased tobacco, corn, cooking oil, and a number of other commodities. Since most of these loans were later forgiven, the Egyptian Government was initially

Table 12—Egyptian employment, by sector

Sector	1973	1974	1975	1976	1977	1978	1979
				Thousands			
Agriculture	4,163.8	4,212.4	4,217.9	4,067.8	4,103.0	4,140.0	4,150.0
Industry	1,112.4	1,149.5	1,175.1	1,200.0	1,245.2	1,280.0	1,310.0
Electricity	35.3	38.3	41.2	47.0	53.9	56.0	59.0
Construction	302.3	315.2	447.4	480.0	457.0	500.0	545.0
Total, commercial sector	5,613.8	5,715.4	5,881.6	5,794.8	5,859.7	5,976.0	6,064.0
Transport and communication	401.8	405.0	404.2	414.4	444.3	460.0	480.0
Trade and finance	864.3	883.2	966.4	1,014.2	1,050.6	1,150.0	1,230.0
Housing	138.0	139.1	142.9	144.0	145.1	150.0	160.0
Public utilities	41.0	43.0	50.0	53.4	54.0	56.0	58.0
Other services[1]	1,800.3	1,853.1	1,988.2	2,083.9	2,165.4	2,300.0	2,400.0
Total, service sector	3,245.9	3,323.4	3,551.7	3,709.9	3,859.4	4,116.0	4,328.0
Total	8,859.7	9,038.8	9,433.3	9,504.7	9,719.1	10,092.0	10,392.0

[1]Includes tourist industry.

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

Table 13—Growth of employment by sector

Sector	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79
			Percent			
Agriculture	1.2	0.1	-3.6	0.9	0.9	0.2
Industry	3.3	2.2	2.1	3.8	2.8	2.3
Electricity	8.5	7.6	14.1	14.7	3.9	5.4
Construction	4.3	41.9	7.3	-4.8	9.4	9.0
Total, commercial sector	1.8	2.9	1.5	1.1	2.0	1.5
Transport and communication	.8	-.2	2.5	7.2	3.5	4.3
Trade and finance	2.2	9.4	4.9	3.6	9.5	7.0
Housing	.8	2.7	.8	.8	3.4	6.7
Public utilities	4.9	16.3	6.8	1.1	3.7	3.6
Other services[1]	2.9	7.3	4.8	3.9	6.2	4.3
Total, service sector	2.4	6.9	4.5	4.0	6.6	5.2
Total	2.0	4.4	.8	2.3	3.8	3.0

[1]Includes tourist industry.

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

able to provide food to the urban areas at almost no cost. Because of political difficulties with the United States, however, Egypt found itself cut off from this financing in late 1966. But by this time, the urban population had come to expect low-priced food and the Government was forced to continue the program to insure tranquility. Large grain imports from other sources occurred in 1967 as arrivals from the United States declined.

The major subsidy program in Egypt is for bread. Until recently, Egyptian wheat programs resulted in the production of two types of bread. The most popular of these was a coarse pita-style bread called balady. Balady was made from flour of 87-percent extraction, weighed 135 grams, and sold for 0.5 piastre (1 pt. = 1.43 U.S. cents). This price remained constant in nominal terms from 1965 to February 1, 1980. In1980, however, special balady was introduced as a replacement. This new bread is still pita-style and weighs 135 grams, but it is now 82-percent extraction and sells for 1 piastre. The other bread, shami, is a loaf bread made of 80-percent extraction flour and weighs 148 grams. Its price since 1965 has been 1 piastre.

In addition to bread, a number of other important consumer foodstuffs are subsidized. While bread is not rationed, many other commodities can be obtained at their subsidized prices only with a Government ration card. This card entitles the holder to purchase specific quantities of rice, cooking oil, tea, and sugar. If more than the specific amount provided by the ration card is desired, or if the Government cooperative stores, called gamayas, have inadequate supplies (a usual occurrence), unlimited quantities may be purchased at free market prices from independent vendors, or at higher prices in the cooperative stores.

Ration cards are given to all Egyptian urban dwellers without regard to their income level. Cards are easily obtained at the neighborhood cooperative stores, where they are also used. In fact, the cards are so easily obtained that there are more cards in urban areas than people. This, at times, is a factor causing shortages in the cooperative stores.

For recent immigrants to the cities, food subsidies are a tremendous boon. They make adjustment to the cities much easier, and in a sense supply income while meaningful employment is sought. Because of a desire to keep cities politically benign, it does not appear that the Egyptian Government will soon do away with them.

The importance of the urban food subsidies can be seen by the results of an attempt to remove them. In 1976, the Egyptian Government requested a loan from the International Monetary Fund (IMF). The IMF, concerned with Egypt's budget problems, sought a cutback in subsidies for bread, sugar, tea, and cooking oil. President Sadat, concerned with the possibly violent repercussions of such cutbacks, was nonetheless compelled to accept the IMF conditions. Subsidy cuts of 25 to 50 percent were announced in January 1977 on certain types of bread. Surprisingly, no effort to change the price of balady bread was included in the plan. As expected, however, the response was immediate and violent. After 3 days of riots and over 90 deaths, the pending increases were rescinded.

Appeal of Modern City Life

The hope of jobs and the promise of low-priced food are major attractions of the urban areas in Egypt. But as in other countries, cities also have the appeal of modern, exciting life. No longer is a farmer's only option working in the dirt and going to bed at dark. In urban areas, even wages for servants are often triple those paid to agricultural labor.

The opportunities for almost everything are better in the cities. Health is often much better because of more facilities, safer drinking water, and better diets. For most, even shower baths are available. There are also more chances for recreation with movies, nightclubs, and restaurants, and entertainment is often provided by the Government in the form of parades, picnics, and trade fairs. And of course, quality clothing is available only in the cities.

But most of the appeal of cities comes from the respect gained by living there. A person living in the city is considered modern and educated. Urban dwellers have a future and more importantly can provide a future for their children. It is surprising that more Egyptians are not moving to the cities.

Agricultural Problems of Growing Urban Areas

While the growth of Egyptian urban areas has been dramatic, the problems associated with it have been no less significant. These problems are mainly agricultural in nature and of two major types.

The first is associated with the physical expansion of urban areas and the resulting loss of cropland. This is a serious problem because of the large losses to a very fixed area of total available cropland. The other group of problems relates to the effects of the increasing cost of the food subsidy program on the Egyptian economy. In major urban areas (with over 500,000 population), approximately 80 percent of the food consumed is imported. This not only means that Egypt depends on outside suppliers, but the country also spends a substantial amount of foreign exchange on food, nearly $2.6 billion in 1979. In addition, because of subsidies, demand for unsubsidized domestically produced items has increased, but many of these commodities have high export value, so there is a cost here as well. In total, the problems associated with urbanization in Egypt are so great that the Egyptian Government must act soon.

Expanding Urban Areas and Cropland Loss in Egypt

When the population of a city grows, the amount of land it needs also increases. This has been the case in Egypt, and a substantial amount of land has been used for new housing. The number of buildings used for housing grew substantially between 1966 and 1976, and the building rate is not slowing down (tables 14 and 15). An ever-expanding amount of land is also being used for recreational purposes. Soccer fields, golf courses, playgrounds for school children, and athletic fields for colleges and military establishments are rapidly being built. Furthermore, a great deal of land is being used for expanding industry, warehouses, and highway systems.

Most of the land that is taken for these urban uses is valuable cropland, in a country with very limited cropland. The cultivated and inhabited area of Egypt is about the size of Maryland, but its population exceeds 42 million, or the equivalent of New York, Pennsylvania, New Jersey, and Maryland. The physical area planted in crops in all Egypt increased from 5.9 million acres in 1953 to a peak of 6.38 million acres in 1961. The level is now estimated to be below that of 1953 (table 16).

The increase in cultivated area between 1953 and 1961 was mainly due to land reclamation projects, especially in the desert south of Alexandria. Since 1964, however, much of this newly reclaimed

Table 14—Buildings and housing units, May 1966

Governorates	Buildings	Housing units	Families	Public buildings	Residents in public buildings	Population
			Number			
Urban:						
Cairo	236,362	779,789	843,483	313	29,639	4,219,853
Alexandria	99,694	321,642	345,746	173	14,550	1,801,056
Port Said	15,748	51,136	50,274	36	1,856	282,977
Suez	23,634	52,464	49,437	72	1,201	264,698
Total	375,438	1,205,031	1,288,940	594	47,246	6,567,984
Lower Egypt:						
Damietta	63,870	79,925	76,899	179	1,645	431,596
Dakahlia	365,657	400,200	393,308	155	2,723	2,285,332
Sharkia	379,210	392,046	360,434	92	4,423	2,107,971
Kalyubia	200,449	228,418	225,132	104	11,230	1,211,764
Kafr el Sheikh	173,959	188,630	182,936	74	1,064	1,118,495
Gharbia	302,718	339,601	344,460	121	3,392	1,901,117
Munufia	290,402	289,767	272,988	99	3,071	1,458,048
Behera	302,366	327,510	328,987	125	4,231	1,978,889
Ismailia	48,748	61,904	61,526	51	1,316	344,789
Total	2,127,279	2,308,001	2,266,676	991	33,095	12,838,001

continued

Table 14—Buildings and housing units, May 1966 (Continued)

Governorates	Buildings	Housing units	Families	Public buildings	Residents in public buildings	Population
			Number			
Upper Egypt:						
Giza	220,996	337,217	329,066	113	8,547	1,650,381
Beni Suef	199,012	219,743	207,117	71	2,318	927,910
Fayum	193,665	208,953	195,806	113	1,752	935,281
Menia	382,680	394,806	371,518	148	4,793	1,705,602
Asyut	269,600	298,102	270,720	174	4,603	1,118,164
Suhag	328,041	361,634	326,024	133	1,803	1,689,397
Qena	316,532	322,134	294,744	286	4,134	1,470,812
Aswan	121,218	126,801	116,152	343	3,924	520,567
Total	2,031,744	2,269,390	2,111,147	1,381	31,874	10,318,114
Frontier:						
Red Sea	5,714	5,963	5,880	42	239	37,818
New Valley	10,299	10,929	9,093	87	599	59,385
Matruh	9,556	9,075	9,081	38	290	123,707
Sinai	13,178	14,038	14,854	74	653	130,849
Total	38,747	40,005	38,908	241	1,781	351,759
All governorates	1,573,308	5,822,427	5,705,671	3,207	113,996	30,075,858

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

Table 15—Buildings and housing units, November 1976

Governorates	Buildings	Housing units	Families	Public buildings	Residents in public buildings	Population
			Number			
Urban:						
Cairo	290,007	1,140,216	1,065,354	413	39,163	5,084,463
Alexandria	148,630	477,262	466,043	326	17,494	2,318,655
Port Said	18,230	51,474	52,156	119	4,366	262,620
Suez	23,306	50,877	40,113	244	200	194,001
Total	480,173	1,719,829	1,623,666	1,102	63,423	7,859,739
Lower Egypt:						
Damietta	88,479	116,455	105,653	76	1,508	557,115
Dakahlia	405,213	485,507	489,741	139	7,130	2,732,756
Sharkia	476,758	496,393	468,310	131	5,999	2,621,208
Kalyubia	239,160	291,245	316,711	34	3,411	1,674,006
Kafr el Sheikh	184,020	194,666	230,249	95	3,186	1,403,468
Gharbia	357,948	430,762	421,714	139	7,672	2,294,303
Munufia	338,224	355,893	311,401	66	4,446	1,710,982
Behera	357,475	399,407	404,989	204	3,974	2,517,292
Ismailia	58,536	80,884	68,148	94	2,859	351,889
Total	2,505,813	2,851,152	2,816,916	978	40,185	15,863,019

continued

Table 15—Buildings and housing units, November 1976 (Continued)

Governorates	Buildings	Housing units	Families	Public buildings	Residents in public buildings	Population
			Number			
Upper Egypt:						
Giza	284,892	542,713	482,709	106	13,896	2,419,247
Beni Suef	222,043	243,983	229,343	94	2,859	1,108,615
Fayuma	220,603	237,526	220,698	61	1,789	1,140,245
Menia	414,291	456,465	415,782	180	5,844	2,055,739
Assiut	317,458	338,714	318,345	123	12,465	1,695,378
Suhag	362,365	377,429	367,655	262	4,429	1,924,960
Qena	366,639	353,710	341,840	123	2,770	1,705,594
Aswan	132,459	140,624	128,509	81	1,539	619,932
Total	2,320,410	2,690,864	2,504,881	1,030	45,758	12,669,710
Frontier:						
Red Sea	12,821	11,784	10,807	159	1,745	56,191
New Valley	13,531	14,914	8,852	35	294	84,645
Matruh	19,364	20,252	18,696	73	2,112	112,772
Sinai	1,311	2,344	1,353	45	3,847	10,104
Total	47,027	49,294	39,708	312	7,998	263,712
All governorates	5,353,423	7,311,439	6,985,171	3,422	157,364	36,656,180

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

Table 16—Egypt: Changes in cropland area and estimated conversion to other uses

Year	Cumulative harvested area	Physical area	Multiple cropping index[1]	Net change	New land added	Estimated cropland loss	Estimated abandonment	Conversion to urban and other uses of man
	—1,000 acres—		*Index*	*—1,000 acres—*				
1952	9,617	5,918	163	—	—	—	—	—
1953	9,723	5,933	164	15	17	2	0	2
1954	10,275	5,963	172	30	31	1	0	1
1955	10,507	5,964	176	1	3	2	0	2
1956	10,320	5,991	172	27	28	1	0	1
1957	10,704	6,053	177	62	64	2	1	1
1958	10,742	6,065	177	12	15	1	1	1
1959	10,687	6,088	176	23	24	1	0	1
1960	10,792	6,115	176	27	28	1	0	2
1961	10,381	6,142	169	27	29	2	0	2
1962	10,787	6,172	175	30	92	62	42	20
1963	10,804	6,264	172	92	137	45	23	22
1964	10,833	6,401	169	137	165	28	8	20
1965	10,869	6,342	171	-59	142	201	177	24
1966	10,887	6,231	175	-111	120	231	202	29
1967	10,860	6,193	175	-38	55	93	70	23
1968	11,153	6,186	180	-7	35	42	21	21
1969	11,140	6,158	181	-28	47	75	57	18

continued

Table 16—Egypt: Changes in cropland area and estimated conversion to other uses (Continued)

Year	Cumulative harvested area	Physical area	Multiple cropping index[1]	Net change	New land added	Estimated cropland loss	Estimated abandonment	Conversion to urban and other uses of man
	—1,000 acres—		*Index*	*—1,000 acres—*				
1970	11,158	6,155	181	-3	22	25	5	20
1971	11,151	6,146	181	-9	12	21	3	18
1972	11,219	6,128	184	-18	4	22	2	20
1973	11,339	6,074	187	-54	3	57	19	38
1974	11,410	6,065	189	-9	3	12	1	11
1975	11,585	6,046	192	-19	14	33	3	30
1976	11,637	6,021	193	-25	15	40	4	36
1977	11,533	5,988	193	-33	13	46	2	44
1978	11,916	5,963	200	-25	16	41	1	40
1979	11,980	5,947	201	-16	19	35	1	34
1980	12,020	5,933	203	-14	15	29	1	28

— = not applicable.

[1] In multiple cropping index, MCI, is the harvested area divided by the physical area. A 100-acre plot (net area) planted and harvested twice a year would have a gross cropland of 200 acres, for an MCI of 200. The above MCI's for 1979-80 indicate that slightly more than 2 crops per year were grown on the net cropland area.

Source: Statistical Yearbooks of Egypt, 1967, 1974, 1979, Ministry of Agriculture, Cairo.

desertland has been abandoned or left fallow. Salinity problems in Tahrir Province forced Government managers to abandon farming on about 40,000 acres between 1965 and 1971, for instance. In areas west of the Nile Delta, the low productivity of newly reclaimed land caused the Ministry of Agrarian Reform and Land Reclamation to initiate programs to improve organic matter in poor desert soils. The undertaking failed. By the early seventies, much of the land reclaimed in the sixties by new projects was disclaimed. Projects like Wadi Natrun which were not contingent to developed areas of the Delta seemed to suffer most. Presently, however, abandonment is minimal.

While abandonment is becoming less of a problem, land losses to urbanization have become very significant. When a very wealthy minority controlled most of the wealth in Egypt prior to 1961, very little land was lost to urbanization or expansion of villages. From 1962 to 1972, the Egyptian Government was the dominant force, however, and its promises of better housing were implemented. Losses of cropland to housing, industry, and military installations ranged from about 18,000 to 29,000 acres per year during this period. This was possibly 10 times the level of the prior decade 1951–61.

With the October 1973 War, the Egyptian Government's control of the economy lessened, but cropland loss to urbanization increased dramatically. The quadrupling of petroleum prices by the Organization of Petroleum Exporting Countries (OPEC) led to greater investments by wealthy Arabs in Egyptian housing, especially apartment buildings. At the same time, a large part of the increased remittances from Egyptian workers abroad went into the construction of housing. Cropland losses to this boom were substantial, as high as 44,000 acres in 1977.

The cropland being lost to urban expansion is usually the best land available for cultivation. This is especially true near Cairo. Most of the expansion there during the sixties took place in the desert areas to the east as the result of official Egyptian policy. Good roads and street car connections were built eastward to encourage and facilitate growth. President Nasser seemed particularly fond of this area, enough so that he chose to live there. Modern apartments ranging

from 10 to 12 stories were built on the way to the Cairo airport. The location of major air bases and military establishments added to the attraction of the eastern areas, and the desertland was cheaper and nights cooler than in the western section of Cairo. The recent construction of Ramadan City as a new suburb completely in the desert indicates the continued eastward growth of Cairo in the vicinity of the airport.

The expansion of Cairo into the desert alone was not maintained, however. When the new policies in 1973 were initiated to attract foreign capital, the farmland between Cairo University and the pyramids began to entice developers. This area has now become a prime location for expensive single family homes and some apartment buildings. The area was previously occupied by orange groves and vegetable farms which supplied the Cairo market. Another development spreads to the Desert Road on the way to Alexandria and surrounds the small farms of Cairo on all sides, in effect creating small parks. At some point in the near future, these areas will likely command extremely high prices, possibly as much as $250,000 per acre, and their produce will be lost.

A boom atmosphere prevails in the real estate market of Egypt. As long as it continues, farms will be converted to nonagricultural uses. Since about 72 percent of Egypt's industry is Government controlled, housing is favored by private investors. These investments are so numerous around Cairo that the value of wheat fields had risen from only several thousand dollars per acre in the midseventies to over $40,000 in 1978. This has given some farmers the chance to become overnight millionaires. Their land will eventually be developed into housing projects.

Housing is not the only user of agricultural land around Cairo. The Egyptian Government is planning to build a circumferential highway network with shopping malls on cropland surrounding Cairo. Warehouses have taken numerous vegetable fields out of production just north of Cairo on the way to Benha. Only the propensity for apartments has so far limited real expansion of Cairo. Housing is still scarce and apartment living prevails for 75 percent of the urban population. The trend, however, is toward single family housing and townhouses, particularly in fashionable suburbs like Maadi.

Cairo is not the only area losing its farmland to urban sprawl. Severe losses of cultivable land are occurring throughout the Nile Delta. Losses along the four-lane highway from Cario to Alexandria have been particularly bad. New factories in the developing industrial corridor from Cairo to Tanta and Alexandria have taken thousands of acres of cropland out of production in the past decade. Warehouses to serve Cairo's industry are being constructed along the Cairo to Alexandria road (formerly an area of productive vegetable gardens) because it is more convenient for trucks and railcars to unload there. Schools, shopping malls, and apartment complexes have also been built in the same area.

Tanta, in the middle of the Delta, has perhaps the greatest urban sprawl, and is completely surrounded by cropland. Greater Tanta has about 1 million people, quadruple its 1966 population. Since this growth has been accompanied by an increase in living standards and industrialization, the area occupied is now approximately seven times its 1966 level. New factories producing textiles, fertilizer, and many consumer goods have taken thousands of acres of field land. Warehouses used to distribute goods to hundreds of villages have taken even more land on the outskirts of Tanta, particularly to the south and west.

Losses of cropland in the vicinity of Tanta during some recent years have ranged from 1,000 to 3,000 acres. The area of cropland converted for the Takhla Fertilizer Factor alone was about 400 acres. Because of its central location and good access to both Alexandria and Cairo, Tanta is a favorite spot for new industries. Location along the country's major highway and railroad systems has helped Tanta become the wholesale distribution and commercial center for the Delta. It growth is expected to continue.

In addition to cropland being lost to cities in the Nile Delta, a great deal of cultivable land is going to village expansion. Prices for cropland tend to decline from Cairo to the Mediterranean Coast. Land located on a major road in Giza Governorate may cost $40,000 per acre compared with $500 per acre for land near Lake Burullus.

The relatively low cost of land in the Northern Delta has caused a considerable increase in housing construction in the villages. The construction of modern homes accommodating families of 10 to 15 people can be seen on the edge of Delta villages. With foreign

exchange now available, more adequate supplies of wood, plumbing fixtures, and cement are being imported. This has facilitated the housing boom. Egyptians returning from overseas have generally earned enough abroad to afford fairly large houses. These houses usually are constructed on the edge of their villages rather than in the congested areas of the old centers. These people also tend to be interested in sports upon returning from foreign jobs, causing the conversion of cropland to soccer fields and baseball diamonds to rise.

In a country where all cropland is valuable, the most valuable is being lost. Farms producing horticultural crops have been most frequently converted to urban uses. The crops which they could have produced are of great value, both on domestic and exports markets. The loss of these crops has meant declining exports and domestic shortages. The Egyptian Government is aware of the problem, and in 1978 instituted a series of land use laws. Under these laws, valuable silt soil may not be used to produce bricks, and cropland may not be rezoned for development purposes.

Unfortunately, these laws have had little effect. Cropland loss to urban uses slowed slightly in 1979 and 1980, but so much land had already been zoned for housing before the 1978 laws that valuable cropland continues to be lost. Generally, the laws are disregarded. In cities and especially in villages, people are building where and when they want. Enforcement of the land use laws for people building houses are rather lax, and only a few brickmakers have been forced to abandon their practices. With money flowing into Egypt from remittances and oil sales, land loss to urban sprawl could reach as much as 100,000 acres a year if the Egyptian Government does not take swift action.

Effects of Urban Food Price Subsidies

The food subsidies drawing people into urban areas are partly responsible for cropland loss. There are, however, more direct problems associated with these subsidies. The major urban areas of Egypt rely heavily on imported food, especially grains (table 17 and 18). These imports not only make Egypt heavily dependent on outside suppliers, but they are obtained at a tremendous cost. The demand for domestically produced commodities which are not subsidized has also been increasing because of the other subsidies.

But these commodities, mostly horticultural, have a high export value which is lost. Egypt may soon become a net importer of even horticultural products.

The value of Egypt's agricultural imports is astounding (table 19). Total agricultural imports in 1973 were $127 million. By 1980 they had risen to $3.363 billion, with an estimated value of $4.380 billion for 1981. This is an increase of over 900 percent. Wheat and wheat flour are the largest imports with vegetable oils, meats, and sugar also important, although a number of other commodities have some portion of their sales which are subsidized (table 20). Except for butter, milk, and sesame, most of these commodities are sold at a loss to the Egyptian Government.

The subsidy program in Egypt is administered through the General Authority for Supply of Commodities (GASC) which is part of the Ministry of Supply. The threshold year for the subsidies is 1974, when U.S. concessional sales to Egypt were resumed and the cost of the subsidy program nearly tripled over the previous year (table 21). Wheat has always been the most costly item in the program because it is provided rationed at extremely low prices. Although most wheat sold at subsidized prices is imported, some is obtained domestically. The domestic wheat is, of course, less expensive than the imported. By 1979, the amount spent on subsidies had increased

Table 17—Estimated share of food imports in selected urban areas

City	General	Total
	Percent	
Cairo	89	92
Alexandria	88	90
Suez Canal	88	90
Aswan	74	80
Mahalla el Kubra	55	56
Tante	49	50
All urban	79	82
All Egypt	45	52

Source: USDA estimates.

to $1.457 billion and in 1981 will probably be $2.04 billion. This is a major burden for the Egyptian Government.

The GASC partially supports its activities. A portion of some subsidized commodities is not sold at subsidized prices, but rather at market prices (table 20). The GASC sells some sugar, for instance, at the subsidized price for the family ration, and the rest at the free market price which is substantially higher, thus making a profit. This is done with sugar, tea, coffee, some vegetable oils, and meat. Although profit is made on sales of some of these commodities, it is by no means enough to cover the cost of the subsidy program (table 22). When compared to the total cost of the program, the stagnation of GASC's revenue generation is obvious. It is nowhere near financing the subsidy program.

A substantial proportion of the funds needed for the subsidy program is provided by Title I of P.L. 480. Title I provides concessionary financing for the purchase of American agricultural exports. In Egypt's case, wheat is the major commodity whose imports are financed under this program (table 22), although small amounts of corn, tobacco, nonfat dry milk, and cottonseed oil have also been provided. Most American exports of wheat and wheat flour to Egypt have been made with concessionary financing. The value of these in 1979 was $249 million, which provided 17 percent of the total cost of the subsidy program and 30 percent of the wheat costs. Concessionary financing through P.L. 480 in 1981 will provide 15 percent of the cost of the subsidy program. Additional U.S. financing includes sales of wheat with loans repayable over 30 years at 2-percent interest after a 10-year grace period when the interest rate is 3 percent.

Substantial as this financing is, it still does not cover the entire cost of the subsidy program. The Egyptian Government pays the balance. A large proportion has recently been provided by oil revenues as a result of the return of the Sinai by Israel, new discoveries in the Gulf of Suez, and tremendously increased world petroleum prices. In fact, with the sudden increase in income, the Egyptian Government felt it was able to increase its subsidy program in 1979 and 1980 (table 21), especially for beef, lentils, and poultry. The income provided by oil exports, however, could be used for development programs rather than food subsidies.

Table 18—Agricultural imports, by quantity

Commodity	Quantity								
	1973	1974	1975	1976	1977	1978	1979	1980[1]	1981[2]
	Metric tons								
Wheat	2,865,000	3,132,000	3,076,000	3,322,000	3,346,323	3,758,740	3,608,596	4,416,945	4,800,000
Wheat flour	226,987	257,732	521,400	404,000	718,630	979,613	934,456	724,377	1,000,000
Corn	67,025	388,386	417,552	458,856	590,860	730,132	493,879	944,047	1,400,000
Cottonseed oil	73,077	60,076	279,623	196,000	216,300	179,000	190,000	170,000	175,000
Soybean oil	3,834	22,024	39,988	27,303	2,100	35,967	45,000	50,000	75,000
Sunflower oil	3,800	36,200	4,000	18,000	0	51,000	40,000	30,000	40,000
Coconut oil	1,011	4,373	2,589	2,330	322	191	200	100	1,000
Processed palm oil	1,659	3,488	4,443	5,000	6,000	7,000	8,000	4,900	5,000
Other	1,026	4,635	7,000	8,000	10,000	11,000	7,800	6,000	14,000
Total vegetable oil	84,405	130,896	337,643	256,633	235,722	305,158	276,000	261,000	310,000
Butter	12	4,088	2,097	23,564	14,224	27,174	5,723	42,000	6,000
Cheese	733	1,480	3,382	8,857	6,345	12,207	17,000	31,000	45,000
Milk, condensed & dry	2,156	4,868	13,681	11,152	17,634	19,731	13,103	19,000	25,000
Tallow	52,932	112,034	134,059	164,384	155,818	145,783	138,345	185,766	200,000
Tobacco	20,840	20,203	25,988	22,706	28,174	29,453	30,279	26,400	35,000
Tea	9,802	14,411	23,651	24,917	26,200	31,045	35,125	38,000	40,000

continued

Table 18—Agricultural imports, by quantity (Continued)

Commodity	Quantity								
	1973	1974	1975	1976	1977	1978	1979	1980[1]	1981[2]
	Metric tons								
Sugar	0	123,121	172,472	184,801	171,311	395,688	284,655	459,760	575,000
Beans & lentils	8,219	17,040	150,906	130,672	68,593	68,674	68,674	105,280	185,000
Potatoes (seed)	12,987	21,869	34,779	32,255	32,700	29,250	34,100	33,000	40,000
Coffee	2,191	3,681	6,170	4,869	3,351	491	5,500	6,000	7,000
Sesame	10,618	24,150	38,600	20,500	16,640	9,947	31,000	39,000	50,000
Oilcake and meal	2,473	3,991	3,450	26,928	25,122	53,218	27,000	10,000	100,000
Beef	5,933	4,146	7,205	35,575	68,735	86,597	100,000	80,437	135,000
Mutton	3,380	1,049	1,005	900	5,990	3,508	13,000	12,554	20,000
Frozen poultry	2,415	1,154	3,026	3,054	6,222	8,582	25,032	76,000	150,000
Canned meat	1,038	2,175	7,749	10,980	3,557	3,508	3,640	5,000	12,000
Raw hides and skins	5,225	6,245	8,598	9,000	3,703	4,580	3,995	4,000	5,000
Wool	3,657	6,650	7,102	9,070	10,526	6,341	11,000	12,000	14,000
Jute	8,910	19,938	21,297	26,271	22,407	12,284	24,000	24,000	25,000
Cotton	0	0	9,526	0	14,400	29,490	2,900	0	0
Rubber	3,213	5,842	7,462	2,750	3,890	4,175	6,000	7,000	8,000
Fruit and veg. prep	250	2,500	4,100	6,000	8,500	7,473	23,800	45,000	85,000
Cattle (number)	42,250	9,177	9,200	10,000	12,000	1,787	14,000	11,000	12,000
Sheep (number)	0	13,954	60,529	19,465	20,000	0	11,000	12,000	15,000

[1]Preliminary.
[2]Estimate.

Source: Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt; United Nations Trade Data; Agricultural Attache Reports, U.S. Embassy, Cairo.

Table 19—Agricultural imports, by value

Commodity	Value								
	1973	1974	1975	1976	1977	1978	1979	1980[1]	1981[2]
	1,000 dollars								
Wheat	266,500	540,490	544,445	459,534	437,427	521,100	585,000	950,000	1,060,000
Wheat flour	26,670	67,621	118,877	92,800	126,485	180,500	195,000	234,000	280,000
Corn	6,288	62,077	69,333	78,825	76,706	86,805	44,825	172,000	230,000
Cottonseed oil	26,600	25,896	245,655	95,000	151,000	140,000	120,000	112,000	130,000
Soybean oil	1,600	19,936	39,562	12,946	1,646	39,329	43,000	40,000	60,000
Sunflower oil	1,500	29,000	3,200	12,500	0	24,000	27,000	20,000	25,000
Coconut oil	296	3,072	11,920	1,156	420	341	350	150	1,000
Processed palm oil	487	2,253	4,000	3,000	3,000	5,000	6,000	5,000	5,000
Other	304	3,543	5,500	7,000	8,000	9,000	26,650	9,000	15,000
Total vegetable oil	30,787	83,690	309,837	131,602	164,066	217,670	223,000	186,150	236,000
Butter	24	3,587	2,773	31,942	26,717	65,757	7,682	26,000	180,000
Cheese	689	1,530	4,787	13,260	15,409	29,799	43,000	80,000	125,000
Milk, cond. & dry	2,676	4,941	17,174	10,060	24,437	28,746	17,891	25,000	35,000
Tallow	13,306	58,154	58,210	73,440	67,004	83,655	100,500	118,000	140,000
Tobacco	27,940	26,336	52,319	63,190	86,300	117,183	86,528	106,000	160,000
Tea	9,549	16,571	32,222	37,612	67,150	114,571	66,202	88,000	100,000
Sugar	0	61,173	105,541	63,571	42,860	106,751	152,000	271,000	385,000
Beans & lentils	1,906	7,319	37,540	30,962	13,987	12,722	7,652	53,000	125,000
Potatoes (seed)	2,024	5,050	11,305	12,091	11,853	7,487	14,000	14,000	15,000
Coffee	2,052	4,465	7,463	12,827	14,390	1,945	22,000	25,000	30,000
Sesame	3,836	11,853	24,000	16,468	12,488	20,890	31,000	35,000	50,000
Oilcake and meal	761	1,038	866	14,211	10,000	24,738	12,000	4,000	30,000

continued

Table 19—Agricultural imports, by value (Continued)

Commodity	Value								
	1973	1974	1975	1976	1977	1978	1979	1980[1]	1981[2]
	1,000 dollars								
Beef	5,983	3,700	7,185	34,280	72,000	72,611	123,000	143,000	275,000
Mutton	1,747	1,370	1,200	0	1,971	8,233	12,000	10,000	30,000
Frozen poultry	1,518	822	3,005	2,400	7,504	14,405	28,270	110,000	200,000
Canned meat	1,534	3,334	9,554	14,630	6,739	8,234	9,500	12,000	30,000
Raw hides and skins	6,799	6,285	7,593	5,771	4,107	8,221	9,400	11,000	10,000
Wool	11,061	17,010	16,374	18,733	40,600	27,586	49,000	50,000	60,000
Jute	2,741	5,390	7,370	8,767	9,838	1,050	11,000	13,000	15,000
Cotton	0	0	1,468	0	49,130	1,784	1,800	0	0
Rubber	2,021	5,038	6,295	4,460	4,618	6,747	8,000	9,000	10,000
Fruit and veg. prep	2,999	10,705	11,000	15,500	24,000	13,650	48,500	73,000	130,000
Cattle	3,756	1,243	1,400	3,000	4,000	1,650	9,000	8,000	10,000
Sheep	0	388	2,206	797	4,000	0	2,000	2,000	5,000
Other	12,675	5,984	20,000	64,966	245,073	238,206	645,250	435,000	424,000
Total	427,429	1,005,720	1,497,432	1,314,299	1,670,858	2,040,000	2,565,000	3,363,150	4,380,000

[1]Preliminary.
[2]Estimate.

Source: United Nations Trade Data; Central Agency for Public Mobilization and Statistics, Arab Republic of Egypt.

But Egypt's oil wealth is not infinite. Its reserves are only 2.5 billion barrels which at current extraction rates will last only about 14 years. Egypt now exports just over half of its annual extraction of crude petroleum. But the Government's provision of oil products to the domestic population at highly subsidized prices is dramatically increasing domestic demand. More output will be needed to maintain the current level of exports.

Although the cost of food imports is the greatest problem associated with the Egyptian food subsidy program, it is not the only problem. Because of the price subsidies, more income is available to be spent on domestically produced commodities, those that are not themselves subsidized. This is especially true of horticultural products, fruits, and vegetables. The subsidized prices for other

Table 20—Imported commodities sold at subsidized prices

Commodity[1]	Portion sold at subsidized price[2]
	Percent
Wheat	100
Wheat flour	99
Corn	100
Cottonseed oil	100
Soybean oil	90
Sunflower oil	80
Butter	20
Milk	20
Tea	67
Sugar	70
Beans and lentils	80
Sesame	10
Oilcake and meal	100
Beef	70
Mutton	95
Frozen poultry	75

[1] Those commodities of which any portion is sold at subsidized prices.
[2] Includes only supplies distributed by the GASC.

Source: USDA estimate.

Table 21—Expenditures on food subsidies and total revenue of the General Authority for Supply of Commodities

Year	Wheat and wheat flour	Edible oils	Sugar	Other	Total expenditures	Total revenue
			Million dollars			
1971	53.4	26.6	20.4	6.4	106.8	98.7
1972	38.6	40.4	15.3	12.8	107.1	78.2
1973	201.9	42.9	48.6	54.7	348.1	120.6
1974	553.1	141.3	176.1	134.4	1,005.0	161.3
1975	666.9	184.5	53.2	178.4	1,083.0	38.3
1976	480.5	145.7	7.7	97.1	731.0	66.5
1977	386.2	226.2	0	279.1	891.5	27.9
1978	569.5	351.2	0	236.1	1,157.4	73.9
1979	841.8	286.1	63.5	133.1	1,457.0	63.6
1980[1]	980.0	350.0	120.0	300.0	1,750.0	NA
1981[1]	1,050.0	370.0	170.0	450.0	2,040.0	NA

NA = not available.
[1]Estimate.

Source: Egyptian Ministry of Finance; Egyptian Ministry of Planning.

Table 22—U.S. wheat and wheat flour exports to Egypt

Year	Regular wheat sales	Concessionary wheat sales	Total wheat sales	Grain equivalent: Regular wheat flour sales	Grain equivalent: Concessionary wheat flour sales	Grain equivalent: Total wheat flour sales
			Metric tons			
1973	425,779	0	425,779	39,145	0	39,145
1974	653,439	71,200	724,639	28,259	0	28,259
1975	462,681	472,450	935,131	29,804	70,210	100,014
1976	361,442	977,520	1,338,962	75,211	240,720	315,931
1977	200,717	1,134,490	1,335,207	39,250	261,300	300,550
1978	73,701	1,042,170	1,115,871	22,647	359,610	382,257
1979	99,819	1,198,846	1,298,665	74,134	371,838	445,972
1980	41,246	1,170,000	1,212,246	7,000	331,030	338,030
1981[1]	300,000	1,200,000	1,500,000	15,000	300,000	315,000
			1,000 dollars			
1973	43,085	0	43,085	7,342	0	7,342
1974	120,832	13,331	134,163	1,773	0	1,773
1975	88,173	66,573	154,746	385	13,386	13,771
1976	42,186	126,667	168,853	[2]11,000	35,938	46,938
1977	18,949	113,771	132,720	5,960	40,826	46,786
1978	8,967	126,796	135,763	4,471	62,415	66,886
1979	21,581	170,210	191,791	16,000	79,228	105,228
1980	8,000	199,773	207,773	15,000	85,589	87,089
1981[1]	58,000	212,000	270,000	3,500	86,500	90,000

[1]Preliminary. [2]Value adjusted to compensate for costs not included in census data.

Source: U.S. Bureau of the Census; USDA, Office of the General Sales Manager.

commodities allow an income transfer which encourages demand for domestic fruits and vegetables. But the crops also have a tremendous export value. Onions and oranges at one time were both large export items. Orange exports in 1973 were 247,000 tons, but by 1979 they had fallen to only 75,000 tons because of large domestic demand. Onion exports were 67,000 tons in 1978, but in 1979 fell to 24,000 tons because of a Government curtailment to prevent local shortages.

Rice, on the other hand, is a domestically produced commodity which has great export value, but is sold to urban consumers at subsidized prices. Rice had traditionally been Egypt's second most important agricultural export, although its export value has seldom been even 20 percent of cotton. Profits from rice exports accrued by the Government through its trading companies have helped finance subsidized rice sales to the domestic urban sector. Rice exports in 1969 were at a record 772,000 tons, but by 1979 had fallen to only 94,878 tons, the lowest level in a decade. This decrease was a result of increasing domestic consumption encouraged by the subsidized domestic prices. With the present low level of rice exports, the Egyptian Government is no longer able to finance domestic consumption, and in 1979 lost $50 million on the transaction.

Food subsidies in Egypt make urban living pleasant and allow the diversion of income from food purchases to other items. This is a major factor encouraging migration from rural to urban areas. But the more people migrate, the more the Egyptian Government must spend on subsidies, and the more Egypt loses.

Prospects

The Government of Egypt has put itself in a precarious position. Through its agricultural policies, it has encouraged urbanization. But the cities have grown too much. Their physical expansion has taken substantial amounts of the most valuable cropland in Egypt. Their population growth has meant increased spending on the food subsidy program.

The Egyptian Government does have some alternatives. Its rural agricultural policies are badly in need of reform. The mandatory production of wheat should be ended. Land on which wheat is

produced could be used to grow more profitable and productive crops. Potatoes, for example, could easily replace wheat. The yields of wheat, although high, do not compare favorably with those of potatoes. Potatoes in Egypt, on average, yield 6.5 tons per acre, while wheat yields only about 1.2 tons. In terms of price, potatoes are worth a great deal more than wheat on both international and domestic markets. Production of potatoes or other high-value crops would allow better use of cropland and increase rural incomes, helping to stem the massive rural outmigration.

In addition to ending mandatory production, the Government should also be fairer in its pricing policies. The purchase of cotton and rice at prices well below world prices is unpopular with farmers, and keeps rural income low. If more reasonable prices were paid, farmers would not be as attracted to the cities, and would have the income for a higher standard of living. The Egyptian Government would lose some revenue if this was done, but higher production and smaller subsidy payments would probably offset this.

To replace some of the cropland lost to urban sprawl, Egypt should redouble its land reclamation efforts. The increased use of improved irrigation technology should allow Egypt to reclaim desert areas. With proper management these areas can become very productive. Fruits and vegetables will probably be the most economically viable crops, with both highly in demand for domestic and export markets

The Sinai also has the potential for providing new cropland. Both summers and winters there are mild, and if water can be pumped in from the Nile, the area has great agricultural potential. In addition, the Sinai has the potential for providing new urban areas. The cities of Qantara, Port Said, Suez, and el Arish can accommodate large numbers of people. This would ease the pressure on the Delta cities and save a good deal of valuable cropland.

If the Egyptian Government really wishes to save cropland, however, it must decide on the direction of growth. Growth can be in two directions—into the desert, or upward (high-rise buildings). The construction of cities in the desert has great potential and is becoming popular. Al-Sadat City, 94 kilometers from Cairo, is the largest of these cities. Egyptians hope it will eventually accommodate 1.5 million people. New industries can also be constructed in these noncropped areas, eliminating another

competitor for cropland use. In existing urban areas, sprawl can be alleviated by building upward. Replacing old houses with modern apartment buildings containing at least three or four floors would be helpful, although the present trend is toward single family housing.

The other urbanization-related problem in Egypt is the subsidy program. It is in this area that Egypt needs to make its most drastic policy changes. The major problem with the subsidy program in Egypt is that it is untargeted. Subsidized food is provided to all urban dwellers, wealthy or poor. The commodities covered include not only staples, but a substantial number of superior goods. The program should be targeted for the poor. This the first step. Next, the number of subsidized commodities should be cut back. The GASC is barely able to handle the exploding demand for even basic items. Only staple commodities such as bread, cooking oil, rice, tea, and sugar should be discounted. Millions of dollars could be saved, and urban areas would not be as enticing.

Unfortunately, the Egyptian Government has been doing the opposite. Rather than cutting back on subsidized commodities they beefed up the list, especially with increased supplies of meat and dairy products. Nor is there a plan to limit the subsidies to the poor. The subsidy program continues to promote urban growth at a great cost to cropland, government finances, and stability.

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U. S. GOVERNMENT PRINTING OFFICE : 1981 720-003/3727

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