

AGRARIAN CHANGE *in* EGYPT

AN ANATOMY OF RURAL POVERTY

Samir Radwan
and
Eddy Lee

A study prepared for the International Labour Office
within the framework of the World Employment Programme



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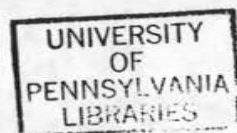
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Performance Indicators

By the end of the 1970s, the agricultural sector revealed signs of severe deterioration. The share of agriculture in GDP (at constant 1975 prices) amounted to only 19 per cent in 1981, in comparison with 28 per cent in 1975. Similarly, the share of agriculture in commodity production declined from 53 per cent to 40 per cent during the same period.²

It is precisely the radical change in these two factors, employment and distribution, that influenced the agrarian structure in the 1980s. The question now is to what extent did these changes affect the picture that emerged from our survey? In order to trace these changes, a brief account will be provided of the performance of agriculture in the 1980s with a view to outlining the major elements of the agrarian question at the present time.

In the preceding chapters we attempted to address ourselves to the question of poverty in rural Egypt. In order to do so, a picture of the rural community in 1977, as provided by our survey, was presented. Results of this survey were used to provide both the qualitative and quantitative analysis of poverty. The profile of poverty was presented in terms of the household and not the individual, since the former was recognised to be the basic income sharing unit. Socio-economic variables were used to distinguish between the characteristics and causes of poverty. This distinction was used only as a means of facilitating the analysis and not to imply mutual exclusiveness between the two mentioned variables. Poverty characteristics were identified in terms of such attributes as food intake, consumption pattern and access to the basic needs of education and housing. Causes of poverty were correlated with such factors as access to employment, asset ownership, sources of income and demographic characteristics. The main observation emerging from the survey results was that the ownership of productive assets and access to employment were the main determinants of poverty.

Table 7.1: Demand and Supply Developments for Principal Agricultural Commodities (average annual per cent change)

	1960-74				1974-81			
	Per Capita Total		Domestic Demand-Supply Gap		Per Capita Total		Domestic Demand-Supply Gap	
	Demand	Demand	Supply	Supply	Demand	Demand	Supply	Supply
Basic food commodities:								
Wheat	4.1	6.6	1.8	4.8	3.8	6.4	0.6	5.8
Maize	1.8	4.3	3.7	0.6	3.9	6.4	3.5	2.9
Sugar	2.6	4.8	3.5	1.3	8.9	11.6	2.6	9.0
Beans	-3.2	-0.9	-1.5	0.6	-0.2	2.3	-1.6	3.9
Lentils	-0.3	2.0	1.1	0.9	1.4	3.8	-29.0	32.8
Edible oils	3.6	6.1	1.3	4.8	4.6	7.2	0.6	6.6
Exportable field crops:								
Cotton	1.3	3.7	-0.9	4.6	4.2	6.8	1.8	5.0
Rice	2.4	4.9	2.2	2.7	0.3	2.8	1.5	1.3
Onions (winter)	0.7	1.6	0.8	0.8	2.5	4.9	1.3	3.6
Groundnuts	-3.4	-1.9	-0.3	1.6	2.9	6.1	3.9	2.2
Fruits and vegetables:								
Citrus	5.1	7.3	8.3	-1.0	-0.5	2.0	1.4	0.6
Potatoes	3.7	6.2	5.2	-1.0	5.9	8.5	7.9	0.6
Tomatoes	1.6	4.1	4.1	0.0	2.5	5.1	5.1	0.0
Livestock products:								
Red meat	-1.0	1.2	1.6	-0.4	3.8	6.4	1.8	4.6
Poultry	0.1	2.5	2.5	0.0	7.2	9.9	2.8	7.1
Fish	-2.9	-0.4	-0.6	0.2	10.2	13.0	4.5	8.5
Milk	-0.7	1.7	1.5	0.2	4.9	7.5	1.6	5.9

Table 7.2: Trade Performance and Self-sufficiency for Principal Agricultural Commodities (exports and imports in thousands of tons; self-sufficiency in domestic supply or per cent of total domestic consumption)

	1960		1974		1981	
	Exports (+) or Imports (-)	Self- sufficiency Ratio	Exports (+) or Imports (-)	Self- sufficiency Ratio	Exports (+) or Imports (-)	Self- sufficiency Ratio
Basic food commodities:						
Wheat	-624	69.8	-3 200	36.8	-5 878	24.8
Rice	+272	143.9	+136	111.2	+25	101.7
Maize	-95	94.0	-338	86.6	-1 300	71.1
Sugar	+42	114.2	-23	96.0	-580	53.2
Beans	+11	100.4	-10	92.5	-90	69.8
Lentils	-2	92.3	-13	81.2	-85	5.6
Edible oils	-6	95.4	-151	49.7	-355	31.6
Other exportable field crops:						
Cotton	+375	400.0	+232	211.0	+165	149.6
Onions	+164	170.0	+104	150.0	+40	117.0
Groundnuts	+3.8	17.2	+7.4	12.6	+7.5	18.0
Livestock products:						
Red meat	-16	94.5	-1	99.7	-125	73.3
Poultry	-	100.0	-1	99.2	-606	62.8
Fish	-7	94.5	-19	92.4	-130	53.6
Milk	-85	94.2	-138	92.5	-1 150	62
Fruits and vegetables:						
Citrus	+20	106.8	+162	120.3	+140	114.0
Potatoes	+91	135.1	+100	118.2	+145	113.6
Tomatoes	+4	100.4	+2	100.1	+3	100.1

Source: World Bank, *Arab Republic of Egypt*, p. 103.

merchandise exports in 1974, fell to 13 per cent by 1981. Food imports, as a percentage of total merchandise imports, rose from 22 per cent in 1974 to about 25 per cent in 1981. The overall agricultural trade balance, which showed a surplus of 1 per cent of GDP in 1974, recorded a deficit of 9.3 per cent of GDP in 1981.³

A closer look at the performance of the agricultural sector reveals a somewhat disturbing picture. Domestic supply of all basic food commodities has failed to keep pace with the demand of the population. The demand-supply gap of basic food staples recorded an average annual change for the period 1974 to 1981 of 5.8 per cent for wheat, 3.9 per cent for beans and as little as 2.9 per cent for maize. Rice, another food staple as well as an export crop, recorded a demand-supply gap, for the same period, of the order of 1.3 per cent. If this demand-supply is translated into self-sufficiency ratios (domestic supply as a ratio of total domestic consumption) as recorded in Table 7.1 below, it is clearly revealed that the growing food gap has been met by a rapidly increasing import of food commodities and a steady decline of exports of agricultural exportable crops: cotton, rice, onions, groundnuts and citrus (see Table 7.2).

The share of agriculture in total employment has also declined to reach about 42 per cent in 1977; with an annual rate of decline of 1.4 per cent since 1971.⁴ This decline is expected to continue in the 1980s as long as the male members of the rural labour force continue to be attracted by opportunities in the urban construction sector or to migrate to oil-rich Arab countries.

Factors Affecting Agricultural Performance

The poor performance of the agricultural sector in the early eighties may be explained in terms of two factors. First, the reorientation, since the mid-1970s, of government policy towards the 'open door' or the liberalisation of the economy in general while retaining a large measure of involvement in the agricultural sector. The open door policy, 'Infitah', brought with it new sources of foreign exchange (remittances of Egyptians working abroad together with returns from tourism, oil export revenues and Suez canal duties), as well as subjecting the domestic market more vigorously to international inflation which followed the boom in oil prices after the 1973 war. The sudden increase in oil revenues in the Arab oil-producing countries accelerated massive investment programmes, particularly in the construction sector. These

programmes generated increased demand for labour, most of which had to be imported from labour-surplus countries. High wages acted as a demand pull factor for labour from Egypt and, as mentioned earlier, the rural sector's capacity to provide new employment for the increasing population had been exhausted, and the urban sector failed to employ new entrants to the labour market from the countryside except in construction. Moreover, supply restrictions were eased with the elimination of exit visas after 1974, thus enabling the movement of a large volume of emigrants to the neighbouring Arab oil countries. This development, together with a rapid rate of population increase, led to an increase in the demand for food. Consequently, real wages in agriculture increased.

With the foreign exchange constraint easing, the government was under no real pressure to change its handling of the agricultural sector. The partial and *ad hoc* pricing policies remained in use, leading to a widening in the gap between the components of the multi-tier pricing system, i.e. producer, consumer and trade prices. Control of agricultural production using acreage allotments and compulsory quotas persisted and the procurement system for some crops by the State remained in use. With the acceleration in the urbanisation process, further pressures were exerted on the demand for the urban untargeted basic foodstuffs programme in which commodity prices were subsidised and distributed according to a ration system. The easing pressure on the foreign exchange led the government to resort to imports in an attempt to close the food gap resulting from a deficient domestic supply. Apart from the increase in the absolute volume of food imports reaching £E2,147 million at current prices in 1981, the successive devaluation of the Egyptian pound in 1979 (when the official exchange rate was dropped in favour of the parallel exchange rate) and in 1981 (when the parallel exchange rate itself was adjusted upwards) resulted in an augmentation of the value of food imports. Thus, the food subsidy bill increased from £E1,023 million in 1979 to £E1,703 million in 1981 at current prices.

Elements of the Agrarian Question

The components of the agrarian problem in Egypt manifest themselves in a limited (and in fact declining) cultivable area of land, poor water management and a distorted cropping pattern.

Attempts were made to expand the arable land frontier directly by

launching an ambitious land reclamation programme, especially during the 1960s. Nevertheless, nearly one-third of the total area of 900,000 feddans reclaimed in the period from 1960-8 was lost due to urbanisation.⁵ A number of reasons have been put forward to explain this limited success with reclamation efforts. First, the initial soil studies carried out at the initiation of the reclamation scheme were inadequate. Second, the reclamation work was never adequately finished. Third, irrigation and drainage problems led to shortages of water resulting from breakdowns of the irrigation pumping systems and failure to provide suitable drainage to most of the reclaimed areas. Fourth, reclamation operations were suspended in the face of shortage of funds, especially during the period 1967-75. Fifth, the institutional structure of managing the reclaimed land varied between being handed over to a public company or given to a new graduate from the Faculty of Agriculture. Both these forms proved very inefficient in bringing the reclaimed land to a level comparable with the marginal old land. In the face of these problems, the emphasis was taken off land reclamation in the 1970s. By the beginning of the 1980s, land reclamation became once more a key element in government development plans.

The increase in the availability of water after the completion of the High Dam has enabled the expansion of the summer cropped area. The inadequacy of the drainage system, coupled with the existing irrigation networks, has resulted in an increase in the volume of the underground water table, leading to an augmentation of the salinity levels in Egyptian soils. It is estimated that about 60 per cent of the total cultivated land in Egypt is significantly affected by problems of drainage.⁶ With the construction of the High Dam, availability of water in the irrigation networks has been secured all year round. The existence of this unaltered water works, which is now used in perennial irrigation, only means that a considerable volume of water will seep through soil layers and augment the underground water table. Such seepages are completely independent of the farmer's watering practices or use of the irrigation system.

The cropping pattern which has emerged during the late 1970s and early 1980s is a reflection of the dualistic nature of agricultural production brought about by the government's pricing policy. Agricultural crops could, at the present time, be classified into four main types on the basis of their price structure. At one end of the scale there are the fixed-price crops represented by cotton and sugar cane. At the other end there are those crops such as fruits, vegetables and clover whose prices are determined by market forces. In between these two extremes, there

Table 7.3: Area of Major Crops: 1960-3, 1970-3 and 1978-81

	1960-3	1970-3	1978-81
Winter crops:			
Full season berseem	690	1 570	1 753
Short season berseem	1 750	1 232	1 013
Wheat	1 387	1 285	1 374
Broad beans	365	292	243
Lentils	78	64	21
Barley	128	82	102
Onions	44	32	22
Fenugreek	55	27	26
Flax	27	29	62
Vegetables	49	179	258
Other	83	87	88
Summer crops:			
Cotton	1 760	1 576	1 182
Rice	791	1 103	997
Maize	271	1 209	1 421
Sorghum	414	462	401
Soya beans	—	2	94
Sesame	45	40	35
Groundnuts	46	36	30
Vegetables	260	348	492
Other	46	86	98
Nili crops:			
Maize	1 456	344	482
Sorghum	55	30	15
Vegetables	138	212	256
Other	18	33	35
Total winter crops	4 750	4 879	4 954
Total summer crops	3 594	5 056	5 000
Total nili crops	1 667	619	718
Orchards	147	251	350
Sugar cane	122	194	250
Total crop area	10 225	10 805	11 092

Source: World Bank, *Arab Republic of Egypt*, p. 108.

Note: Totals include other minor crops.

exist crops which are subject to fixed prices for compulsory quotas with the over-quota balance being sold freely on the market. Such crops include rice, sesame and groundnuts. Further down the scale come wheat and maize, whose prices are affected indirectly via the government's imports and sales.

Classification of crops according to their price structures does not provide a full picture of the cropping system. In a situation of a multiple cropping price, incentives to farmers play an important role in

determining the cropping mix. These incentives are of two types: cash and non-cash. Cash incentives take the form of minimising the time that lapses between planting the crop and its sale and finally maximising the volume of crop marketed free of compulsory quota once enough provision has been set aside for on-farm consumption of both food and feed. Cash incentives are directly related to the freedom of prices, while non-cash objectives help to offset some of the effects experienced by cultivators of fixed and quasi-fixed price crops.

The cropping pattern for the periods 1970-3 and 1978-81 conforms to the above-mentioned frame of reference. To devote areas to vegetables and orchards, by the sizeable investment required before the trees bear fruits, is an option open only to large farmers. Vegetables, being labour-intensive, have suffered from rising labour costs and are also limited by proximity to markets in the urban centres. Long clover, with its free prices as well as substantial cash and non-cash incentives, has experienced an acreage increase of 12 per cent. Maize serves as a dual-purpose crop. Maize grains used for human consumption are reinforced by the use of the crop's green leaves as a substitute for scarce green fodder during the summer. The area devoted to maize has increased by about 18 per cent during the same period. While indirectly controlled by the government, the increase in wheat acreage has been enhanced by the increase in straw value as a component of feed.⁷ In the case of rice, acreage has recorded a decline of about 10 per cent as a result of high competition from the more profitable maize. Sugar cane, although controlled by the State, has witnessed an increase in its acreage by about 29 per cent. This is the result of the increase in the availability of summer water in the Governorates of Minya, Qena and Aswan. In the case of cotton, whose price and marketing are under complete control of the State, acreage has declined by 25 per cent in the period from 1970-3 to 1978-81.

The avoidance of cotton cultivation by Egyptian farmers has been attributed to its low profitability. While this may be a valid cause, it can yet be argued that there is more to it. The cultivation of cotton seems to be associated with a 'cotton debt syndrome' which the farmer attempts to avoid as much as possible. Given its fixed low price, cash incentives in the form of the maximisation of cash returns are not possible. Being a labour-intensive crop, and in the face of rising labour costs, the minimisation of cash costs becomes a difficult task. Given the small farmer's limited liquidity, he applies for a credit to cover the crop production cost from the co-operative. The value of this credit, together with other services requested for cotton cultivation, are entered against

the farmer's account. Cotton occupies the fields for about eight months before it can be harvested. When he is given his cotton seed, the farmer is paid an advance, and the final payment, after deductions for debts, is made after ginning. This results in a cumulative debt formation with the co-operative. It is only the cotton crop which exposes the farmer to this complete cycle, since in the case of other crops the over-quota balance can provide the farmer with direct cash away from the control of the co-operative. Thus, it would not be irrational to avoid cotton cultivation if by doing so the payment of co-operative debts could be postponed or even avoided together with moving on to a more rewarding crop. The possibility of even a secondary benefit from cotton could not be derived (along the lines of wheat straw) since cottonseed cake is a manufactured product and hence unavailable directly to the farmer on his farm.

Some Concluding Remarks

The performance of Egyptian agriculture outlined above raises a number of issues that bear on the future of that sector.

On the one hand, Egypt is endowed with unbalanced resources: a limited and even declining arable area in the face of a continuously growing population and urban expansion. Demands on the agricultural sector are increasing while output is decreasing and the gap is widening. On the other hand, the agrarian structure operates within a set governmental agrarian policy, a policy which was devised piecemeal and thus has not been able to address effectively the encountered sectoral constraints, let alone face the challenges of the 1980s.

The government's agricultural policy, like most other policies, attempted to tackle the two fundamental issues of equity and efficiency. Value judgements on the performance of the agrarian policy will not add to our understanding of the situation. What is more instructive is to try to analyse how this state policy has tried to accomplish its declared aims and the tools used to meet these ends.

From the start, the agrarian policy gave more weight to equity considerations while assuming that this would not jeopardise efficiency considerations. Equity objectives were to be accomplished by a variety of means. The unequal distribution of the land resources was handled with the proclamation of the agrarian reform. The provision of goods and services was to operate under State directives through a consumer subsidy programme. Efficiency in the allocation of resources was attempted by mandatory rules of production. Acreage allotments,

compulsory quotas and consolidation schemes were all used to attempt to direct agricultural resources in the direction of the government's overall development plans. The State perceived a minor role for prices in influencing output. Production decisions were seen by the administration as being independent of prices since allocation of resources was already set by the State directives.

This agricultural policy, set in the 1960s, had to face the challenge of growing demand resulting from increasing population. The initial round of gains began to fade away and by the early seventies the problem re-emerged in a more acute form. Shortages were patched with *ad hoc* decisions. No fundamental changes in agricultural policy were put forward and its rationale was not questioned. The administered pricing system became regressive, leading to a more inequitable distribution, and was reinforced by State directives. The developments of the mid-1970s on the national (open door policy), Arab (oil price boom) and international scenes magnified the challenge. More demand was placed on the sector, which suffered from shrinking resources (land and migrating labour) as a result of a change in the income distribution and consumption patterns in favour of land-intensive products (meat and food).

A pricing system was used which became regressive and production incentives were distorted. A shift took place, as indicated earlier, in land resources, diverting them away from traditional agricultural cash crops in favour of orchards, fodder and vegetables. In addition, the allocative flexibility of land resources resulted in a deterioration of the income differentials, favouring the large and medium sized farmers capable of diversification, leaving the small peasant locked in the 'traditional cash crop trap'.

In sum, the adopted agrarian policy did not completely succeed in reducing inequalities; the distribution of land was not radically changed and the access of the landless to land did not increase. Their sources of income remained restricted to labour income. Migration to Arab oil-producing countries might have helped some farmers, but it has also worsened the situation of the great majority of the rural population. A growing rate of inflation found its way to the countryside via its effect on the cost of living, which is not serviced by the urban-based consumer subsidy programme.

The agrarian system is in need of speedy reform if it is to overcome existing problems and cope with future demands. At the top of the reform priority list is the agricultural pricing policy. The confusion of the role of prices in planning agricultural production needs to be avoided

if greater efficiency is to be achieved. Producers' incentives via the price mechanism should not be overlooked. Emphasis should be placed on the allocative function of prices for producers. Distributional questions as they pertain to consumers are another issue. Hence, producer prices should not be depressed, as this will lead to inefficient production outcomes. Consumer prices, however, should be used with distributional considerations in mind and may be handled by lowering consumer prices. Financing the gap between the two sets of prices becomes a government concern and sources of financing this gap should be sought in the fiscal policies at the disposal of the State. The inefficiency of the taxation system should not be used as a valid reason for seeking an easy solution to eliminating the allocative function of producer prices. Such easy solutions only result in further problems and require more government legislation in the pricing and allocational sphere of agricultural production.

Closely related to the problem of agricultural pricing policy is the issue of land taxes. Taxation of agricultural land has been by far the most neglected issue in Egyptian agriculture. In recent years, land tax has been under discussion and some attempts have been put forward to raise its level or at least bring it into effective existence. Land taxes based on a reassessment of the market rentals of land have been suggested. The imposition of this tax on the basis of a realistic assessment of the present-day value of the produce of land would result in a budget revenue which can be used to finance the consumer-producer price gap. It would also lead to a re-allocation of income from the large landlords in favour of the small farmers. The issue of having to leave the collection of land taxes unaltered due to the shortage of administrative machinery should not be used to delay such a reform.

Notes

1. For a detailed discussion of the agrarian question and policies in the 1980s see B. Hansen and S. Radwan: *Employment opportunities and equity in a changing economy: Egypt in the 1980s: A labour market approach* (Geneva, ILO, 1982); and A. Richards and P. L. Martin: *Migration, mechanization and agricultural labour markets in Egypt* (Boulder, Colorado, Westview Press, 1983).

2. See World Bank: *Arab Republic of Egypt: Issues of trade strategy and investment planning*, Report No. 4136-EGT (Washington, DC, 14 January 1983), p. 409.

3. *Ibid.*

4. *Ibid.*, p. 407.

5. *Ibid.*, p. 104.

6. *Ibid.*, p. 18.

7. This increase in straw value is such that some observers have indicated that the price of a certain weight of flour is cheaper than an equivalent weight of straw or bran and that this has resulted in producers starting to use wheat and its products in feeding livestock and poultry. Dr Y. Wally: 'Strategy of agricultural development in the eighties', Arab Republic of Egypt, Ministry of Agriculture and Food Security, unpublished report, no date.