

## Employment planning in Egypt: An insurance policy for the future<sup>1</sup>

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If a correct prediction of the present labour market and employment conditions in Egypt had been made ten years ago, the authors would in all probability have been ridiculed and told to go back to the drawing board. Nobody, in fact, made forecasts at that time that even remotely resemble actual developments and it is hard to see how anybody could have visualised what was in store.

That would have required predictions of the oil price increases from 1973 onwards and the subsequent development of the Arab OPEC countries, entailing tremendous investment expenditures and demand for foreign labour. That the accumulations of the Arab OPEC countries would have profound implications for international capital markets and flows was understood at an early stage of the accumulation process. That they were to have a no less profound impact on the labour markets in neighbouring poor countries and induce international labour movements on a large scale was only slowly realised as the emigration flow grew from a trickle to a torrent, draining local labour markets and transferring a substantial slice of the OPEC revenues to the working population of fringe countries all the way from Morocco via Egypt, the Sudan, Yemen and Jordan to Pakistan. It was essentially the repercussions of this process that unpredictably transformed the stagnating Egyptian economy of the late 1960s and early 1970s with its massive underemployment into a high-growth economy with shortages dominating important sections of the labour market.

Spill-over of OPEC revenues was not the only factor influencing the Egyptian labour market after 1973. The emergence of Egypt as a minor oil exporter, combined with increasing Suez Canal revenues, helped finance a strong expansion of government expenditure for all purposes, and some foreign investment and aid added to the picture.

The common feature of all these sources of foreign exchange, expansion of production and demand for labour is that they are exogenous to the

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economy and largely outside the control of the Government. They were never designed to create balanced domestic expansion and did, in fact, achieve the opposite, with profound labour market maladjustment as a consequence. In addition, the present situation is obviously highly vulnerable to adverse external developments.

From a policy point of view, the current problem is, accordingly, not to create employment opportunities generally, but rather to match existing labour supply with demand and to draw up contingency plans to hedge against possible setbacks in the future.

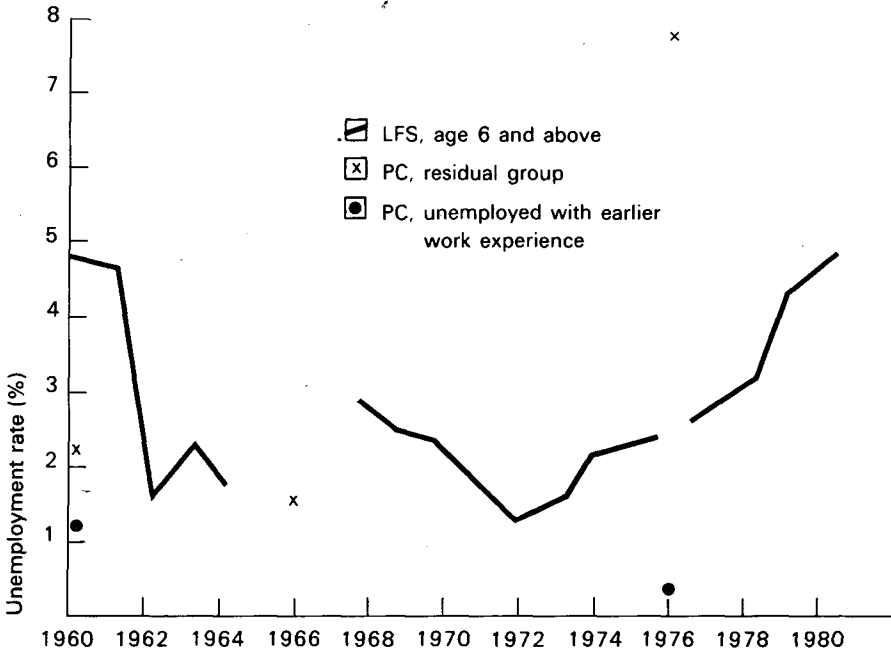
## **I. The state of the labour market**

Although it should be obvious that a country with a labour force of some 10 million cannot supply about a million emigrant workers and absorb another million into the Government and armed forces in less than a decade without straining the labour market, no matter what labour surplus may have existed at the beginning, these imbalances are not easy to pinpoint statistically.

The figure in this article shows the existing information on unemployment. The picture is not an easy one to interpret. The strong expansion under the First Five-Year Plan (1960-65) was accompanied by a fall in the unemployment rate as measured by both population censuses (PCs) and labour force surveys (LFSs). That the unemployment rate (as measured by the LFSs) should be higher in 1968 than in 1964 is also to be expected because of the stagnation of the economy. The fall from 1968 to 1972, with the subsequent increase up to 1980, however, seems to run counter to logic. With perhaps a million workers (10 per cent of the labour force) emigrating after 1973 and the domestic GDP growth rate soaring, measured unemployment (LFSs) edged up from 1.5 per cent in 1972 to 4.4 per cent in 1979 and 4.7 per cent in 1980. A residual, non-specified group in the PCs, usually identified with the unemployed, increased from about 1.5 per cent in 1966 to 7.8 per cent in 1976.<sup>2</sup> Detailed breakdowns, however, indicate that the rising measured unemployment rates should be seen as indicators of increasing labour market maladjustment rather than of a generally slackening labour demand, since the rising flood of young, inexperienced jobseekers, many of whom are graduates from secondary and higher education, has according to the PCs been accompanied by a tightening of the market for experienced workers.

Vacancy statistics do not exist, but two sectors have experienced enormous increases in relative wage rates that can only be explained by labour shortages. These are construction and agriculture. Compared with wage rates in private establishments as a whole (ten employees and over), which increased by about 75 per cent from 1970 to 1976 and perhaps by another 25 per cent between 1976 and 1979, those in agriculture rose by 235 per cent from 1970 to 1979, while construction worker wage rates

Unemployment rates, 1960-80



Source: Based on data from the labour force surveys (LFSs) and population censuses (PCs).

increased by almost 375 per cent from 1970 to 1977 and perhaps reached the 500 per cent mark in 1979. Public-sector wages increased by a modest 75 per cent between 1970 and 1979.

There is no doubt that construction was the pace-setter in this process. While employment in construction more than doubled during the 1970s, agriculture lost about one-tenth of its employed labour force. Table 1 summarises employment developments during the 1970s.

This is a remarkable picture by any standards, and it indicates profound structural change. Manufacturing, construction and the Government more than absorbed the full net increase in employment, agriculture lost a substantial part of its labour force while the "other" category, which includes most of the informal sector, was practically speaking stagnant and relatively lost in importance as an employment outlet. The forces active in creating this unusual development have been emigration and government employment policies.

During the early years of emigration to Arab OPEC countries, the flow consisted mainly of skilled construction workers. Despite a loss that may even have exceeded the total construction labour force in 1971, the construction sector none the less more than doubled its employment during the 1970s, absorbing and training large numbers of agricultural workers. This

Table 1. Employment of the resident labour force, 1971-79

Sector	Number of persons ('000)		Increase, 1971-79		Annual compound rate of increase, 1971-79, %
	1971	1979	'000	%	
Total employed <sup>1</sup>	8 252.5	9 565.3	1 312.8	15.9	1.8
Agriculture, fisheries, etc.	4 469.5	4 002.0	-467.5	-10.5	-1.4
Mining, manufacturing, etc. <sup>2</sup>	1 063.2	1 620.4	557.2	52.4	5.4
Construction	193.2	448.5	255.3	132.1	11.1
Government administration, etc. <sup>3</sup>	1 270.5	2 200.0 <sup>4</sup>	929.5	73.2	7.0
Other <sup>5</sup>	1 256.1	1 294.4	38.3	3.1	0.4
Total labour force <sup>1</sup>	8 405.6	10 023.5	1 617.9	19.2	2.2

<sup>1</sup> Not including the armed forces, which increased from 378,000 in 1971 to 445,000 in 1979. <sup>2</sup> Mining, quarrying, manufacturing, electricity, gas, etc. <sup>3</sup> Not including authorities and public enterprises. <sup>4</sup> Approximate figure: 1978 = 2,065.3. <sup>5</sup> Trade, transportation, communications, finance, other services, unspecified.

Source: Central Agency for Public Mobilisation and Statistics: Labour force surveys, and Central Agency for Organisation and Administration: *Development and employment in government administration, 1965/66-1978*, Data Services No. 11 (Cairo, Information Centre, 1979), p. 15.

process was accompanied by the sharp increase of construction worker wages, pulling agricultural wages along in its wake. Productivity suffered, especially in terms of quality in construction; yet, from a purely organisational point of view, the replacement and expansion of the construction labour force is an extraordinary feat to which both private entrepreneurship and government training and recruitment efforts contributed. The loss of labour in agriculture during recent years, partly to domestic construction, partly directly abroad through emigration, may to some extent have been made good through increased work by the family, including women and children (not picked up by the LFSs); none the less, agriculture is undoubtedly suffering production losses, and this fact, combined with the strong relative and absolute increase of agricultural wages, points to the necessity of structural change in Egyptian agriculture in the direction of less labour-intensive cultivation patterns and methods. Indeed, this structural change appears already to be on its way and may be an irreversible phenomenon.

In absolute terms, government (administration proper and public services) absorbed more labour than any other sector; in relative terms it was second to construction only. The expansion of the Government is closely related to the guaranteed employment schemes for military conscripts and graduates from secondary education and upwards. The former, in force from 1973 to 1976, served to overstaff the Government with illiterate employees and drain the countryside of young, able-bodied males. The latter, which has been in force since 1966, has had the pernicious effect of overstaffing government administration with formally educated but vocationally entirely unskilled employees in relatively high wage grades.

The Government's wage policies have been marked by restraint ; public-sector wages (including those in public enterprises) have lagged considerably behind both consumer prices and private-sector wages ; in fact, medium grades (including new graduates) and higher echelons have suffered substantial real wage declines, although the lowest grades have experienced a substantial real wage increase. Second jobs (in principle illegal but in practice very common) have to some extent compensated for the decline in real wages, the ease with which they are obtained being indicative of the tight labour market situation outside the public sector.

The negligible increase of employment in the traditional private service sectors and the informal sector may partly reflect government employment policies. In the absence of the guaranteed employment scheme for graduates, many might have found their way into services and informal occupations, perhaps never caring about obtaining the educational certificate which now serves as the entrance ticket to government employment. The second jobs of government employees are mostly located in such occupations and do not appear in the statistics. To an unknown extent, employment increases in these sectors are therefore underestimated. Even so, the trends noted are probably the most striking indication of the generally high level of employment in Egypt.

Another noteworthy feature of table 1 is the large share absorbed by mining, manufacturing, etc. Almost half the absolute increase in employment took place in this sector. This may be partly explained by overstaffing in public enterprises, to which the guaranteed employment scheme for graduates applied until 1978. Most of the increase, however, was in productive employment in the private sector, which leads one to the conclusion that small-scale manufacturing must have been much more important in this regard, since most large enterprises are publicly owned.

## **II. Labour market prospects**

Given the situation just described, it is clear that employment policies have to be highly labour-market-oriented and selective, but before they are discussed we have to look into the prospects for the future.

Employment prospects depend much upon the ability of the economy to adjust to changing external circumstances. There are good reasons for believing that its capacity to absorb surpluses of labour may have declined, despite the dynamism of certain industries in the private sector, and that possible setbacks are bound to have much more serious consequences for employment than they had in the past. A number of structural changes point in this direction : the wage structure is probably becoming more rigid, the informal sector is shrinking, if not absolutely, then certainly in relative terms, and the ability of agriculture to serve as the great labour reservoir and labour market regulator may be gone forever. Furthermore, modernisation tends to

substitute open unemployment for the underemployment which prevailed in traditional low-productivity occupations, and this is becoming increasingly the case in Egypt.

Greater wage rigidity is closely related to the increasing share of public-sector employment in total employment. Government and public enterprises together employ about one-third of the total resident labour force under a system which links individual wages to formal education status ("certificate-pricing") and formal seniority, with little or no regard being paid to individual occupation, specialisation or qualifications. A reserve price for labour is thus established which must have a pervasive effect on the downward flexibility of private wages in urban areas. Without radical changes in government employment and wage policy, a future decline in labour demand relative to supply is bound to be accompanied by increased reliance by youngsters on the public employment guarantee and hence an aggravation of government overstaffing or open urban unemployment with little effect on private-sector wages.

The relative decline of the informal sector not only reflects the improving general employment situation and modernisation but is also a consequence of important developments under the *infitah* ("open door") policies of the late President Sadat, resulting in increased exposure to competition from foreign consumer goods. Although the negative effects of these developments on domestic production have so far been concealed by the general employment boom, in the case of a setback it is doubtful whether the informal sector supplying traditional goods and services will be able to recover, let alone expand.

Most important for future employment is, however, the structural change in agriculture. We have earlier pointed to the decline in the agricultural labour force. In a sense this is a normal conjunctural phenomenon. Agricultural employment and wage statistics for the post-war period show clearly that agricultural employment has tended to move counter-cyclically, thus serving as an employment buffer for the rest of the economy. The strong decline of agricultural employment and the accompanying very strong rural wage increases since 1973 are probably more than just a cyclical adjustment phenomenon, however. Changing cropping patterns and increasing mechanisation make it unlikely that agriculture will reabsorb lost labour, since the high wage level enjoyed by migrants from agriculture during spells of emigration and work in domestic construction, with some accumulation of skills and funds, makes it unlikely that they will return as hired rural labour at the substantially lower pay which would result from an economic downturn. The overwhelming probability is that they will remain in urban areas waiting for employment at high wages.

It is against this background that a number of uncertainties regarding future employment take on particularly serious proportions. The uncertainties are of a nature that defies prediction and hence they call for contingency planning and hedging.

Egypt's potential employment problems are formidable. Without emigration, the labour force might increase by some 2.5 per cent annually. Raising compulsory education from six to nine years, with increased ratios of effective school attendance, will reduce the rate of labour force growth for some years to come, but after 1990 the sharp rise in the birth rate prevailing since 1975 will greatly increase the flow of new entrants to the labour market. Higher labour force participation of females, which is a natural consequence of improved education, works in the same direction.

The future of emigration thus takes on special significance. For the present domestic employment conditions to prevail, not only a continuation but an acceleration of the net flow of emigrants is required. This is not likely to happen. The present huge investment projects in Saudi Arabia may soon pass their construction stage, and competition from Asian labour is keen. The market for experienced farm labour in Iraq will sooner or later be saturated. Declining OPEC revenues and liquidity problems associated with the oil glut in some OPEC countries may lead to a cutback in investment plans and demand for foreign labour. Political uncertainties cannot be discounted easily either. Everything considered, a reversal of the emigration process cannot be excluded, in which case Egypt would face not only the blocking of the most important employment outlet of the 1970s plus a return flow of emigrants seeking employment, but also a serious decline in foreign exchange earnings. The very developments that could cause a drop in labour demand from the Arab OPEC countries might adversely affect Egyptian oil export revenues and thus aggravate this decline. A disaster situation with a massive return of emigrants and a collapse of foreign exchange earnings is thus a possibility that should not be ruled out.

While remittances from emigrants, oil exports, Suez Canal revenues and earnings from tourism have until recently made Egypt's current foreign exchange position reasonably comfortable, long-term prospects are not very bright without new oil finds. Domestic oil demand is likely, sooner or later, to outstrip domestic production, even with tighter fiscal and monetary policies. Without new foreign exchange earning industries, Egypt is likely to run into severe difficulties before the end of the 1980s; indeed, prospects are already clouded. It is against this background that employment policies should be formulated.

### **III. Employment and poverty**

The analysis has so far not touched upon the implications of these changes in the labour market for income distribution and poverty; a task to which we now turn.<sup>3</sup>

Long-term trends in income distribution are difficult to establish, but evidence from household expenditure surveys suggests that, despite the persistence of a wide rural-urban income gap, income distribution in Egypt up to the mid-1970s may have been less unequal than in other developing

countries at similar stages of development; that rural income was more equally distributed than urban income; and that, between the mid-1960s and the mid-1970s, the distribution of urban income improved slightly, while that of rural income perhaps showed some improvement during the period 1958/59–1964/65 and apparent deterioration in the following decade. Table 2 sums up these trends.

How has income distribution developed since the mid-1970s in both rural and urban areas?

Two factors assume primary importance as determinants of changes in both distribution and poverty in the rural areas: access to productive assets, notably land, and employment entitlements. Recent developments in rural Egypt can be largely explained by changes in these two factors. Thus we find that the trend towards more unequal distribution of land ownership and size of land-holding in recent years to a large extent explains similar trends in income disparities. The Gini coefficient of concentration of land-holdings increased from 0.46 to 0.55 between 1974/75 and 1979. This was accompanied by the emergence of very small farms at the bottom of the scale and the reappearance of large land-holdings at the top. In 1965, small-holders (below 5 *feddans*<sup>4</sup>) represented 95 per cent of owners and had 57 per cent of the land, while large landowners (over 50 *feddans*) represented 0.3 per cent of owners and controlled 12.6 per cent of the land. By 1977, each group kept its relative position in terms of percentage of owners, but the share of land of small-holders decreased to 52 per cent while that of large landowners increased to 14.5 per cent. The average farm size for small-holders decreased from 1.2 *feddans* to 0.9 *feddans* during the same period. This pattern of land-holding has important implications for employment generation. Small-holdings may act as a “trap” for family labour, particularly adult males, who, although they are idle during the slack season, have to be available during the peak season and thus cannot look for stable employment elsewhere. The result is a higher incidence of underemployment in this category. Data generated by the Farm Management Survey carried out in 1977 show that, on average, “the head of the family is working around 90 days per year, which means that he is employed for one-third of his time”.<sup>5</sup> A paradoxical situation thus exists in which underemployment coincides with rising agricultural wage rates. Moreover, small farms are less able to benefit from technological change or to shift to more profitable crops. The net result of all these characteristics (subdivision of land-holdings, underemployment and lack of technical progress) is low incomes for very small farmers. Finally, pressure on the land (which has long been constant in supply but is now actually diminishing by some 60,000–70,000 *feddans* a year, or 1 per cent of total cultivated area, as a result of the urban construction boom), together with labour shortage, has led to the emergence of some types of land tenure—such as sharecropping—which may reinforce the trend towards greater inequality. All these changes point to the need for a fresh look at agrarian reform.



Table 2. Indicators of income distribution: Gini coefficient of household expenditure, selected years

Year	Rural	Urban	Nation-wide
1958/59	0.37	0.40	0.42
1964/65	0.35	0.40	0.40
1974/75	0.39	0.37	0.38

Source: Derived from annual family budget surveys.

Employment is another determinant of income distribution. The new features of the labour market have to be borne in mind when any agrarian policy is devised. Prominent among these are the effects of the tight labour market on rural wages. On the one hand, this must have led to an improvement in the lot of rural wage earners, who represent 10-15 per cent of the total rural labour force or 25 per cent of the agricultural labour force. On the other hand, the increase in wages may be partly responsible for the growing trend towards mechanisation, especially of ploughing and irrigation, as reported in a recent survey.<sup>6</sup> The effect of wage behaviour on future employment opportunities should therefore be borne in mind.

Another factor affecting rural income distribution is remittances from emigrant workers. Although its net effect is unclear owing to the absence of information, if the experience of other countries with substantial emigration (e.g. Turkey) is anything to go by, remittances affect income distribution in two ways. First, they may improve it if the migrants were landless peasants, as is often the case with Egyptian migrants to the Arab OPEC countries. On the other hand, remittances may worsen income distribution within the lower income groups, since those who do not receive remittances will be relatively worse off than those who do. Finally, recent changes may have affected the nature of the poverty groups. Certainly wage earners are no longer "the poorest of the rural poor", rather, poor households are those with little or no diversity of income sources, whereas even a very small farmer with a migrant member in the Gulf may be relatively well off. It appears therefore, that—apart from the disabled and the old—the poor are those with very small farms who cannot escape from them and those working in the low-productivity tertiary sector in the villages.

The picture of income distribution in urban areas is much more complex, and many aspects of it remain blank. Two general observations may be made at the outset. First, urban income distribution during the period up to the mid-1970s must have been more skewed than the data in table 2 suggest. These data relate to household expenditure and thus give little indication of surplus wealth obtained from, say, private business profit, especially in the real-estate sector. Secondly, it is likely that the net result of the *infatih* policy has been more unequal distribution since 1975.

This general picture of inequality hides interesting changes in the relative position of different socio-economic groups. Evidence suggests that the construction boom plus the flow of remittances from migrants may have improved the lot of many wage earners, but government officials and university graduates newly appointed in the public sector or administration have suffered a sharp drop in their real incomes due to rapid inflation. Table 3 shows these trends clearly.

#### IV. Labour market policies for high employment

The problems facing Egyptian employment planners are complex. To some extent they are country-specific; to some extent they are shared by all developing countries. Their solution requires a mixture of investment policy, educational policy, land reform and, above all, labour market policy, taken in a wide sense so as to include wage policies. As a minimum, a solution to the employment problem should include the following range of policies, which should be pursued simultaneously:

- (1) hedging against possible foreign exchange shortfalls;
- (2) contingency plans to handle possible massive returns of emigrant workers;
- (3) retraining and relocation of unproductive and redundant government employees;
- (4) co-ordination of investment and educational policies so as to match current and future demand and supply of labour by skills and occupations;
- (5) agrarian reform to cope with underemployment on very small farms, which already exists and may take on serious proportions in an employment crisis.

We shall deal with these briefly in turn.

##### Hedging against foreign exchange shortfalls

Hedging against foreign exchange shortfalls serves as an insurance policy against the uncertainties described in section II so as to permit effective demand to be kept at a level sufficient for high employment to be preserved and the basic need for security of income to be met. From a long-term point of view, it requires the creation or expansion of foreign exchange earning industries (export industries or import-substituting capital goods industries); accumulation of exchange reserves can at most serve as a short-term, risk-averting device.

If they are to serve their purpose, these industries should be financed out of current consumption so that investments are both redirected and increased. Furthermore, they should have short recoupment periods and manufacture a wide range of products; both of these requirements tend to

Table 3. Index of real wages of wage and salary earners in public and private establishments, ten employees and over, 1970 and 1976 (1966 = 100)

Category of employee/establishment	1970	1976	Nominal weekly earnings (piastres), 1966
<i>Wage earners</i>			
Male	111	126	335
Female	115	140	226
<i>Salary earners</i>			
Male	102	90	795
Female	96	85	545
<i>Ownership</i>			
Public	104	105	446
Private	106	135	340

Source: Gerald Starr: *Wages in the Egyptian formal sector*, paper solicited by the employment mission (Geneva, ILO, forthcoming; World Employment Programme research working paper; restricted).

imply labour-intensive technologies. If the industries are public, no special incentives for such investments should be needed. If they are private, the right incentives have to be created. Unlike the International Monetary Fund and the World Bank, we do not believe that a depreciation of the current (spot) exchange rate is a proper device for this purpose, as it inevitably increases current construction costs without necessarily improving the relative position of expected future earnings on the export commodity market. Gestation periods are normally very long, so that long forward purchases by the Central Bank of foreign exchange from the new industries at preferential rates (with guaranteed premiums over future spot rates, for instance) may be a much better device.

Agricultural investments would in many ways be ideal. They will usually be beneficial over a wide and variable range of products and have short recoupment periods (in the case of fertilisers, pumping devices and other machinery, at least). It is more difficult, however, to give export incentives (such as long forward contracts) to small cultivators than to big corporate businesses, and other solutions must be found. Since, on the other hand, the development of agriculture is in any case overdue and it can be redirected to produce for the domestic market at short notice, if required, it may be the best available proposition for the suggested hedging policy.

Increased export orientation is but one of the reforms needed in Egyptian industry. Government investment policies have for the last decade been excessively oriented towards the production of durable consumer goods. These goods are not competitive in either price or quality with Japanese and European products and they serve to satisfy a demand that

both balance of payments considerations and income equalisation policies require to be cut back seriously. Industries producing cheap clothing, based on the existing cotton textile industry, might, for instance, be more viable and employment-creating.

### Contingency plans for returned migrants

A massive return of emigrant workers would in all probability lead to a strong increase in urban unemployment, for reasons already stated, and it would therefore be imperative to create urban employment on a sufficient scale as a second element in the "insurance policy" outlined above. Construction work would be the natural choice. Massive residential building programmes with infrastructure construction and land reclamation could absorb very large numbers of skilled and unskilled construction workers and, if they were based on traditional technologies and domestically produced building materials, the foreign exchange requirements might be modest. Large parts of both Cairo and Alexandria are badly in need of reconstruction, repair and maintenance; the unsatisfied demand for housing is enormous and, for the next few decades, family formation will be as rapid as ever. If such construction works are to be started as soon as possible following an unexpected return of emigrants, contingency plans must be prepared in advance and ready for immediate implementation.

### Relocation of government employees

Two decades of public employment programmes, from Nasser's employment drive in 1961-62 to the guaranteed employment schemes for conscripts (1973-76) and graduates (1966 to the present day), have resulted in severe overstaffing of the public sector. In a labour-surplus economy such schemes might be considered a form of unemployment benefit that combines a guaranteed income with social status and thus has a socially stabilising effect. The drawbacks are tremendous, however. The effects on work morale and discipline in government offices are disastrous and, with the country developing from a labour-surplus to a labour-shortage economy, the production forgone is enormous. With some 10 per cent of the labour force unproductively employed in the Government, the loss to the national income may be even larger considering that the people concerned are often among the better educated.

Ironically enough, alongside the general plethora of administrative personnel, there are acute scarcities of technical skills in the government sector. In both health and education services the potential shortages are very great; buildings are the binding constraint in the education system at the moment, but once existing plans for their expansion are implemented, potential shortages of staff will become all too real.

Underemployed government employees enjoy, of course, the same security of employment as any other government employees (indeed, it is impossible to say which employees are surplus to requirements) and dismissal would in any case be socially inconceivable. Educated government employees could, of course, be transferred to health and education services, but retraining is clearly necessary for this to be meaningful. In addition, incentives would have to be created for government employees to seek it; here the public pay system, which in its present form offers no such incentives, would need to be restructured so as to offer attractive premiums to skills and occupations in short supply (health personnel and teachers). With sufficient retraining programmes established within the public service, the overstaffing-cum-shortage problem could in the authors' opinion be solved within the present decade as far as government employees with secondary and university education are concerned.

The Government unfortunately also employs large numbers of illiterate or semi-literate personnel with no real functions to perform and no access to training or education facilities. Admittedly, presidential wage policies during the last decade have greatly favoured the very lowest grades in government service; they and the country might have been better served, however, by training and education that would have permitted them to move upwards in the existing grade system. Be that as it may, overstaffing in the lowest wage grades is a difficult problem to handle. A hiring freeze would at least prevent the problem from growing and permit the existing surplus to be slowly absorbed through natural attrition. Appropriate training programmes for the upgrading and transfer of such employees should be initiated.

### **Co-ordination of investment and educational policies**

To avoid perpetuating the present overstaffing or confronting the government sector with intractable training and retraining problems, the guaranteed employment scheme would have to be abolished as soon as possible. However, while a hiring freeze for the lowest grades might even improve the current labour market situation, the immediate abolition of guaranteed employment for graduates would exacerbate the existing imbalances between demand for and supply of specific skills and abilities and increase unemployment and social dissatisfaction. Generally, graduates are not easily employable elsewhere, although the prospect of guaranteed employment in the Government has probably served to establish a reserve wage below which they are unwilling to look for work in other quarters. With guaranteed employment abolished, not only would graduates (and their parents) have to scale down their ambitions, but they would probably also reconsider the value of formal higher education from an employment point of view. This brings us to the great issue in the present-day Egyptian economic debate, namely how to ensure that the education and vocational training

system will be able to supply the specific skills demanded by investment and production plans.

Reorientation of investment and educational policies takes years to implement; a decade may be a realistic estimate. Likewise, students and their parents would probably be slow in responding to a new and different pay structure and a radical change in educational requirements. The market forces cannot be relied on to solve overnight the employment problem that would arise if guaranteed employment for graduates were suddenly abolished. Some kind of transitional system would have to be instituted.

The writers have proposed that the Government should announce unequivocally that guaranteed employment will be entirely abolished after, say, five years. Until then, employment would continue to be guaranteed, but only on condition that the graduate accepted training and possible re-education with later transfer to a job for which the necessary skills had been acquired. The Government would accordingly have to dimension the retraining and re-education system to be set up so as to take care of the existing stock of overstaffing and process the additional flow of graduates until the deadline announced. Only one intra-governmental retraining and re-education system would thus be required. It would be temporary and should be phased out once the restructuring of the general education and pay system is successfully completed.

Although the guaranteed employment schemes have deprived students of the incentive to seek employable skills and educational institutions of the incentive to supply them, the Ministry of Education has been aware of the problem. A recent programme document from the Ministry, preparing the introduction of the new compulsory nine-year elementary schooling, acknowledges the need for the education system to satisfy the demands of the labour market. It would be wrong, however, to place the burden of adjustment one-sidedly upon the formal education system. Considering the inability of manpower planning at the national level to predict the detailed requirements of specific skills (occupations), it appears obvious that vocational training should be decentralised and located within the industries—and even the enterprises—in need of these skills. Only at the industry or enterprise level it is possible, with some degree of certainty, to predict the need for them and to give new entrants the practical training needed. Decisions about the direction of vocational training and the manner in which it should be organised should be left in the hands of management in existing industries and the planners of new industries. The centralised education system under the Ministry of Education would thus at all levels—elementary (basic), secondary (general as well as technical, commercial and agricultural), and university—concentrate on providing students with the general knowledge and skills needed as a basis for vocational training.

Quite apart from being the only practical way of making the supply of skills meet the demand, the proposed decentralisation has the advantage of directing state expenditure on vocational training to the right place, that is

the enterprise or industry benefiting from such training. Vocational training would in this way become part and parcel of the investment planning of the country. Traditional methods of investment planning based on sectoral capital-output and capital-employment ratios are of little help when it is a question of making decisions about employment at various skill levels and the vocational training needed for developing such skills. Explicit consideration of training requirements for alternative technologies will undoubtedly affect both the total volume and the distribution of the investments required to employ the growing labour force and increase its productivity. Project evaluations along the lines recommended by the United Nations Industrial Development Organisation (UNIDO),<sup>7</sup> for instance, are therefore needed, with the costs of vocational training for the purposes of the individual project included in its flow of costs, the productivity of the training taken into account in the flow of outputs, and labour costs evaluated at (shadow) wages corresponding to productivity in alternative employment without training. The social net benefits of specific vocational training would thus in principle be correctly evaluated and both the technologies and the training best adapted to the conditions of the labour market would be selected.

Important problems of incentives arise with both general education and vocational training, even when they are financed entirely by the taxpayer. In the case of vocational training, in particular, it might be thought that, once it is attached to public enterprises and financed by the general public, wage and salary rates would no longer need to reflect formal qualifications. There would be no need to compensate for parents' "investments" in the training of their children and hence to create incentives for them. However, investment in education is not the sole consideration involved, since the Egyptian economy will probably continue to be a mixed one, with public and private enterprises existing side by side in the same industries and competing for the same scarce skills. With workers free to change employment and move to private industry, private enterprises may be willing to pay for the increase in labour productivity related to formal education and training. To be able to keep their trained labour force and also to give others an incentive to absorb training, public enterprises have thus to transfer the benefits (increased productivity) of vocational training in the form of higher wages and salaries to those who have undergone it. Market wages have thus to prevail in the public sector.

### **Agrarian reform**

A final phenomenon not without its incidence on the labour market situation is the increasing number of very small farms. The distribution of both ownership and holdings (cultivation units) shows a clear deterioration since the mid-1960s, to some extent reversing the redistribution achieved through successive land reforms. From our point of view the really serious trend in land distribution is the sharp increase in the number of farms of less

than 1 *feddan*, which do not generally offer sufficient employment for all family members. Despite the demands from other sectors, both at home and abroad, underemployment in peasant agriculture may be on the increase and productivity on the decline. Restructuring of agriculture will have to take this fact into account, allowing for consolidation of very small farms and creating alternative employment opportunities for the farm population made superfluous.

## V. Conclusions

External events, largely related to the oil price increases of 1973 and 1979, profoundly changed the Egyptian employment situation during the 1970s. Formerly a stagnant labour-surplus economy, Egypt developed with astonishing speed into a high-employment economy with serious labour market imbalances where shortages of skilled and unskilled manual and technical labour now coexist with increasing surpluses of educated workers. A reversal of the external events responsible for this metamorphosis could easily and even more abruptly reverse the employment situation. Repercussions from the current oil glut, temporary though they may be, clearly indicate the vulnerability of Egypt's high-growth, high-employment economy. Therefore, determined efforts to rectify existing labour market maladjustments and the mismatch of labour force skills with productive requirements should be accompanied by contingency plans to hedge against possible external events that might seriously threaten the general foreign exchange and employment position.

The mismatch of available and required skills should be solved through reforms of the pay systems in the public sector (government and public enterprises) and the systems of general education and vocational training and the introduction of appropriate incentives. A shift of the resources of the general educational system so as to lay increased emphasis on elementary and technical secondary education should be undertaken, combined with a complete reorientation of university studies. Because no reliable methods for centralised planning of the detailed occupational and skill composition of the labour force exist and only industries and enterprises can predict occupational and skill requirements with any certainty, vocational training should be decentralised to industry and enterprise level.

A special problem is the massive overstaffing of the public sector as a consequence of guaranteed employment for graduates. Since overstaffing in some branches is accompanied by shortages in others, wage reforms in the public sector should be accompanied by special intra-governmental retraining and re-education programmes. The employment guarantees could be phased out over a five-year period, provided that the necessary educational and training reforms were undertaken.

Parallel with these measures, agriculture will need to be restructured to eliminate underemployment and increase productivity.



In order to hedge against adverse external foreign exchange and employment developments, the investment programme needs to be stepped up and reoriented. Industries earning foreign exchange over and above current needs should be established. Should the additional foreign exchange earnings not be needed to compensate for unexpected shortfalls they can always be used for expanding domestic consumption. If they are accompanied by a reversal of the emigration flow, contingency employment programmes, carefully planned in advance and concentrated on the construction sector, should be set in motion. All of the above policies would help to protect the working population against the uncertainties of external developments and should be an integral part of any basic-needs strategy the Government may adopt.

## Notes

<sup>1</sup> The views set forth in the present article reflect those of a report by the authors: *Employment opportunities and equity in a changing economy: Egypt in the 1980s*. A labour market approach. Report of an inter-agency team financed by the United Nations Development Programme and organised by the International Labour Office (Geneva, ILO, 1982).

<sup>2</sup> There are many problems in the data. For a detailed discussion see Hansen and Radwan, op. cit. See also I. H. El-Issawy: *Employment inadequacy in Egypt*, paper solicited by the employment mission (Geneva, ILO, forthcoming; World Employment Programme research working paper; restricted).

<sup>3</sup> For details see Hansen and Radwan, op. cit., pp. 95-138.

<sup>4</sup> 1 feddan = 1 acre (0.4 hectares).

<sup>5</sup> A. A. Goweli: *Some features of agricultural labour employed in Egypt*, paper solicited by the employment mission (Cairo, 1980; mimeographed).

<sup>6</sup> M. M. El-Salhy, O. A. El-Kholei and M. Abbas: *Evaluation of the IBRD Agricultural Development Project of Menoufia and Sohag Governorates*. The situation before the project (Phase I) (Cairo, Ministry of Agriculture, 1981; mimeographed).

<sup>7</sup> *Guidelines for project evaluation* (Vienna, UNIDO, 1972).