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STRATEGY REFLECTIONS ON EGYPT

March 1980

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The views expressed herein are those of the author  
and do not necessarily reflect Agency policy.

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Annex I: Methodology Used in Calculating Labor Force Projections

## Summary

This is not a finished strategy paper. Rather it is a first effort to sketch out a strategy which integrates our three main concerns: political stability, economic growth and equity. The strategy advocated herein calls for an "employment focus" by which is meant not only job creation, but more broadly, placing employment (the number of jobs, the type of jobs, their productivity, their geographic dispersion, who gets them, their relation to education, the income streams derived from them) at the intellectual center of our approach to Egypt's problems. The major thrust of the paper is that by focusing on employment we can not only promote our political objectives, but at the same time promote equitable growth. The concern with employment is buttressed by an analysis to the effect that in the coming year Egypt's labor force will be increasing at a very fast pace, and that it is unlikely that the economy will be able to generate a sufficient number of jobs. In the final sections of the paper, an effort is made to approach problems in population, agriculture and industrialization from an employment point of view.

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## I. The legislative Framework for ESF Programs

Section 531 of the Foreign Assistance Act reads:

" The Congress recognizes that under special economic, political or security conditions the national interests of the United States may require economic support for countries or in amounts which could not be justified solely under Chapter 1 of part I. In such cases, the President is authorized to furnish assistance to countries and organizations on such terms and conditions as he may determine, in order to promote economic or political stability. In planning assistance intended for economic development under this chapter, the President shall take into account, to the maximum extent feasible, the policy directions of section 102."

We note that the act does not say that all ESF funds have to be used for economic development. It does however, assume that there is an important link between economic development and political and economic stability. And it says that of assistance intended for economic development, "to the maximum extent feasible" the President should take into account the policy directions of section 102.

This wording provides a good deal of latitude. It is rather imprecise about what is and is not intended. The committee reports that accompanied the legislation provided somewhat more guidance. The House Committee on International Relations report spoke of the "economic and development goals" of ESF programs and expressed an intention to "reinforce efforts in the Congress to make these programs consistent with the goals of the 'New Directions' policy guidelines." The report stated that the Committee recognizes that in the early years of the Egypt, Syria and Southern Africa program

the need to obligate large sums of money within a limited time frame made funding of large scale infrastructure projects attractive. It went on to state that "AID should in the future orient a greater number of projects to meeting the basic needs of the poorest sectors of these countries." It specifically mentions more funding devoted to "alleviating hunger, lowering the infant mortality rate as well as the birth rate, and improving health standards." However, this emphasis should not detract from "the security and political goals which remain the primary purpose for which the assistance is furnished."

The Senate Foreign Relations Committee report:

- states that it is the intention of the committee that "these funds be used to the maximum degree possible for development purposes,"
- recognizes that even for the poorest countries assisted by ESF there are "legitimate development purposes such as improving transportation and communication infrastructure which could not be funded through the major functional development accounts."
- states that programs designed to meet the basic needs of the poor majority should be given special emphasis,
- states that "though the justification for ESF is political, this should not detract from the developmental uses of ESF".

We might summarize as follows:

1. The fact that economic aid is given through the ESF account signifies that there is some particular interest of the U.S. in the economic or political stability of the country. It also suggests that the amount of money involved is greater than would have been given if assistance was solely through the Development Assistance accounts.
2. To the maximum extent possible such economic aid should be used to contribute to the economic development of the country. However, it is not necessary that all funding be developmental. If there is some special non-developmental use of the money which would make an important contribution to the economic/political stability objective this appears to be authorized. But the overall thrust is that the money be used developmentally.
3. Of that money which is used developmentally, the general thrust is that it should be used in accord with policy guidelines identified in section 102 of the FAA. The legislation says this should be done to the "maximum extent feasible." The committee reports do not provide full guidance as to how to interpret this phrase. The House report clearly indicates that it was necessary to fund large infrastructure projects in the early years of the

Egypt program; but it sees this as of less necessity at the time of the report (4/28/78). The Senate Committee report specifically mentions communication and transportation infrastructure as "legitimate purposes"; it does not explain how to reconcile that statement with its view that "new directions criteria of section 102 (be applied) to the maximum extent feasible."

Nonetheless, it is generally clear that the new directions guidance of section 102 is to be the general guide. There is flexibility with respect to the use of funds for non-development purposes and for the use of funds for development purposes not in accord with section 102, but the general orientation is that 102 should apply.

Section 102 can be thought of as doing two things, a) defining the basic purpose of our assistance, and b) specifying certain modalities which should be emphasized in efforts to achieve that purpose. In thinking about ESF programs and the "maximum extent" to which it is feasible to apply the 102 guidelines, it is important to distinguish:

1. Features of the country situation which make it infeasible to pursue the basic goal of development assistance.
2. Features which make it infeasible to fully utilize the modalities identified in section 102.

The section states that:

"the principal purpose of United States bilateral development assistance is to help the poor majority of people in developing countries to participate in a process of equitable growth through productive work and to influence decisions that shape their lives..."

The section then identifies numerous specific modalities for accomplishing this purpose. They include:

- expanding access to economy through institutions at local level
- increased participation in decision making
- increased labor intensive production and use of appropriate tech.
- increased investment in small towns and rural areas
- democratic participation in government decision making
- collaborative style in relations with host countries
- high priority to activities which directly improve lives of the poorest
- concentration of resources in countries which most effectively use aid to meet BHN of poor through equitable growth
- focus on areas of food production and nutrition, rural development and generation of gainful employment, population planning and health, environment and natural resources, education, development administration and human resource development
- participation of women in national economies
- use of private sector e.g. educational institutions, cooperatives, credit unions, voluntary organizations

- encouraging private US investment in economic and social development programs
- regional cooperation
- cooperation with other donors'
- concentration on projects not involving large scale capital transfers.\*

In what follows it will be argued that there is a good fit between the political objectives of our assistance to Egypt and the development goal of assisting the poor. Indeed, even with respect to the specific modalities for achieving this goal, there is a reasonably good fit between what we might be doing in Egypt and the approaches identified in section 102.

Our basic position is that it is not only feasible to target our efforts towards "insuring that the poor participate in equitable development through productive work" but that such an approach would best serve our political interests as well.

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\* In a recent report the House Appropriations Committee expressed considerable dissatisfaction with the Egypt program because of "perceived" failings along just these lines.

The Committee was concerned that:

- the program seems to lack a long term development perspective
- the emphasis on infrastructure may result in a perception that the major beneficiaries are not the poor.
- Egyptian and donor development efforts are not reaching the poor.
- neither we nor the Egyptian Government is giving the same emphasis to rural development as is given to heavy industry.
- neither the GOE nor AID have committed significant funds to population control efforts.
- AID projects in the rural areas have been of questionable merit and have not committed significant resources to helping small farmers with credit, extension services or capital saving technology.
- little AID money was going to provide employment in the rural areas.
- little money has gone for vocation and agricultural training.
- little money has gone for self help and community involvement.

## II. U.S. Political Objectives in Egypt:

The primary U.S. political objective for which ESF funds are provided is the political stability of the present Egyptian government. Economic stability in Egypt is primarily of import in so far as it contributes to this political stability. It is not essentially an end in itself, and it might be argued by some, that in the long run greater political stability can be promoted by undertaking economic measures which might involve major economic upheavals. The primary U.S. interest that points to political stability as a central objective is our concern with the foreign policy orientation of the Egyptian Government. In particular we have an interest in its willingness to remain at peace with Israel and to participate with Israel in negotiations which, it is hoped, will lead to a comprehensive Middle East peace. These negotiations, it is believed, have the greatest chance for success with the retention in power of the present Egyptian government. They are most likely to succeed when domestic conditions in Egypt are stable, and when there is widespread support for Sadat's efforts. It should be recognized that this concern has a particularly short time horizon. This is not to suggest that the U.S. interest in political stability in Egypt is short term, but that the present heart of this interest, creating the best possible atmosphere for the autonomy talks, is short run, essentially the next two years. Furthermore, because of Egypt's size, and military strength and because of the strategic importance of the region to the U.S., we will have a continuing interest in the maintenance of friendly relations with any Egyptian government.

The short term stability objective is controlling in the sense that if there was any program decision which would seriously compromise this short term objective it would and should be rejected. And similarly, if there was any program decision which could make a major contribution to this objective it should be taken. This said, it should be noted that when we are discussing strategy options for Egypt (e.g. 1982-1986 program options) we are operating in a time frame which hardly makes contact with the short term political objectives. The beginning of fiscal '82 is over a year and a half away.

For the most part, what our strategy discussion is relevant to is the mid-term and long-term stability of the GOE and of long term relations with the United States. In thinking about the longer term we should be thinking about the creation/maintenance of economic conditions which will:

- contribute to the political stability of the Sadat regime
- reinforce the decision to align Egypt primarily with the West
- deepen and broaden the extent to which there is popular support of these policies.

Specifically, the economic conditions that would promote these objectives include:

1. A gradual increase in real disposable income
2. Low inflation or some form of protection from inflation
3. Security of employment and the absence of significant unemployment

4. A general sense of the equity/social justice of the economic structure and of economic changes .

Because of the scale of our involvement in Egypt it is relevant to consider how our actions will contribute to transformation of Egyptian society. Several underlying perceptions should be made explicit:

1. We cannot merely think of our role as one of keeping on good relations with the present government or of keeping the present government in power. These are basic objectives, but they are insufficient for several reasons. First, it should be recognized that there is an inherent instability to the political situation which we cannot eliminate. Policy swings and international orientations in Egypt can be rather sweeping and sudden. Witness the decision to dispel the Soviet advisors after vast commitments of economic and military aid on their part, and after considerable Soviet support during three wars.\*

Egypt's perception that its interests lie primarily in close relationship to the United States is subject to change. Not the least of the factors outside of our control is the behavior of the Israeli Government. We cannot assure that the Israelis will be sufficiently forthcoming in the

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\*Indeed, in certain ways the Soviet involvement was considerably greater than ours should or will be - at one point there were over 20,000 Soviet advisors in the country and Soviet pilots were even said to have flown air defense missions. While the Soviets did not provide everything that the Egyptians wanted, their contributions were not exactly meager (e.g., the Egyptians received missile systems that were denied to the North Vietnamese)

autonomy talks to confirm the general policy line Egypt has pursued. Similarly, we cannot say what the future holds with respect military conflicts between Israel and other Arab countries and how such eventualities (e.g., another movement into Lebanon, conflict with Syria) will impact on Egypt.

Furthermore there is the obvious fact of possible changes in Egyptian leadership. Sadat is 62 years old, and even with the best of luck, will not be around forever. Moreover, there is always the possibility of assassination, a relatively frequent event in Middle Eastern politics.

What this suggests, then, in view of the great and still growing importance of Egypt to the United States, is that we cannot afford to limit our objectives to good relations with the current regime and to helping that regime stay in power. We should consider approaches to our involvement which would minimize the harm to relations with the United States in the event that any of a variety of unpredictables should come to pass. From a political point of view our strategy should seek to minimize risks, and should develop fall-back positions in case of the unexpected.

Egypt is going to be going through major economic and social transformations in the coming years. Perhaps the major driving force behind these transformation is population growth. To take a single example, 20 years ago 57% of the Egyptian labor force

was engaged in agriculture; by the end of the century it is likely that no more than 20% will be in agriculture. Cairo presently has a population in the 8 million range, and in the next 15-20 years may well reach the unimaginable size of 15 million. We should recognize that these changes are going to occur, and we should recognize that inevitably they will cause dislocation. Our efforts should not exacerbate the situation, but rather should help to minimize the sense of dislocation and upheaval. It is important that the United States be broadly identified with the Egyptian commitment to social justice, and with efforts to raise the standard of living for the average Egyptian. In dealing with a society that is coming out of a socialist phase, and is very much at the center of East-West competition, it is of central importance that we not appear as the stereotypic capitalist nation. Both our security and equity interests could be compromised by an approach which gives dominant importance to maximizing the shift to what will no doubt be termed "capitalist resurgence": (i.e. expansion of the private sector, especially of large firms; shifting public sector assets back to private ownership; elimination of subsidies on basic commodities; cutbacks in spending for social objectives; "rationalization" of the economy which results in the visible rise of a new class of wealthy Egyptians.)

2. We should not overemphasize the extent to which we want to elevate growth of GNP at the expense of other social/economic values. For there to be a general feeling of economic well being there needs to be a sustained increase in real disposable family income. However, if this is in the context of a general rise in physical quality of life and if there is an absence of a sense of "being left behind" as others somehow take advantage of a changing situation, the actual rate at which family income increases, need be surprisingly low. For instance, I would suggest that if the pace of change is such that each family has twice as much real disposable income to spend than the previous generation had (for adults, twice as much as they had when they were children) that with a general rise in physical quality of life, this is quite sufficient. It will mean more than a doubling of the amount available for non essentials. A generation-over-generation doubling, if we take the generational span (the average age difference between parents and children) to be 25 years, will occur with a growth rate of 2.8%. Furthermore, if the average size of the family is smaller, this level of growth will have an even greater impact. And if the family increases the number of wage earners (e.g. if increasing numbers of women enter the paid labor force), this can occur with relatively low levels of productivity growth.

In this context, it should be recognized that in recent years, Egypt has had a real growth rate (of GNP) of about 9%. Given its population increase rate of about 3%, real growth of per capita income has occurred at about a 6% rate. At this rate, per capita GNP would

double in 12 years. However, if only more modest growth can be sustained, so long as there is a broadly shared sense of social equity and general social improvement the economic sphere will be functioning adequately. And from a political viewpoint, it will be contributing to rather than undermining stability.

3. It should be remembered that, Egypt is a unique situation for the United States and for our foreign aid effort. For U.S. foreign policy objectives it is probably the most important country to which we are giving foreign aid. It is the only poor country to which we are giving aid on a scale which can significantly impact on conditions throughout the country. It is by far the major ESF recipient to which section 102 policies are applicable. In short, it represents a unique point at which there is a coming together of resources, development problems, and security interests; Egypt is the place where the relevance of the New Directions development philosophy to security concerns will be tested. It is the place where we have to answer the question, "What kind of economic development approach will most dispose the developing country towards a broad and deep attachment to the values we represent?" We are clearly concerned here for the long term, and I would hazard the guess that so long as we remain on good terms politically with the Egyptians we will be providing substantial amounts of economic aid.

The broad outlines of our strategy proposal are:

1. Avoid major destabilizing policy shifts. (This may mean not pushing the Egyptians as hard as we may like on the issue of subsidies).

2. Continue large amounts of PL 480 assistance.
3. Retain flexibility with regard to future CIP so as to respond quickly to emerging situations.
4. Clarify the populist equity values inherent in our program; seek to have the program perceived as (and, in fact, be) broadly beneficial to the interests of the Egyptian people rather than too closely identified with any specific individuals or class.
5. Seek to avoid any deterioration in the distribution of income.
6. Seek to provide a significant physical quality of life floor for all.
7. Promote the development of democratic institutions particularly on the local level.
8. Emphasize job creation
9. Pay careful attention to the use of available capital so as to insure that productivity levels are broadly in line, and that job creation does not take the form of make-work.
10. Emphasize the importance of limiting population growth, make full use of indirect ways of approaching issue through improvements in the socio-economic status of women.
11. Plan for the limitation of migration to Cairo.
12. Emphasize policies to channel available incomes away from conspicuous consumption/luxury consumption and into investment.

13. Give special emphasis for the development of an effective tax system, both on incomes and on capital gains.
14. Proceed rather cautiously with expansion of the private sector, emphasizing job creation, small-scale operations, ease of entry, and profit sharing.

As will become clear, the heart of the strategy is the focus on employment. This will need to be more than mere "job creation." In the next section we will offer a fuller sense of what this "employment focus" might entail. While employment will be the main focus, the strategy will also call for emphasis on population and on BHN activities.

### III. Equity, Poverty, and Employment

Before proceeding to a discussion of what is meant by an "employment focus," there are three key features of Egyptian economic life that will be discussed. They are important aspects of the Egypt situation, and there seems to be some intra-AID disagreement about the facts. Our viewpoint maintains the following:

1. Egypt is a society which has had a major concern with economic equality. While significant steps towards achieving these ideals were achieved, Egypt never became broadly egalitarian. Major disparities in income and wealth remained. Recent Egyptian history suggests that there has been some movement in the direction of increasing inequality.

2. Closely related to #1 is the fact that significant poverty is present in Egypt, but it is not at all uniform. It can only be dealt with through a combination of efforts which raise incomes and increase public investments in key areas. Recent economic trends do not show progress in eliminating this poverty.
3. Egypt has a considerable failure to fully utilize its most abundant resource: labor. Because of recent population growth, the problem, dangers, and opportunities associated with utilization of labor supply will take on an even greater significance in the future.

A. The Distribution of Income and Wealth:

We are interested in a) the present distributive pattern, and b) movement towards or away from greater equality. It may be thought that if there is a high degree of equality, it is not too serious if there is some movement towards greater inequality. However, from the point of view of political stability it is probably the case that whatever level of inequality or equality exists quickly becomes the reference point. Certainly international comparisons are beside the point. The key stability issue is whether people believe that there is a general movement towards or away from social justice.

The Present Distribution

The World Bank has provided information on the distribution of rural and urban incomes.

Roughly, the rural household income distribution was:

bottom	16%	got	4%
next	23%	got	12%
next	23%	got	18%
next	20%	got	22%
top	18%	got	45%

In urban areas the distribution was:

bottom	18%	got	5%
next	17%	got	8%
next	22%	got	15%
next	25%	got	26%
top	18%	got	45%

In rural areas average household income for those in the bottom 5th was in the range of 100LE per household. For households in the top 5th average income was almost 1,000 LE. (1974/75)

In urban areas the average household income for the bottom 5th of households was around 200 LE and the average for top 5th households was over 1,600 LE.\*

While these figures are far from the most inequitable that one might find, they do not show a broadly egalitarian society. Within urban or rural regions, average families in the top 1/6 of the population have ten times the income of average families in the bottom 1/6. This can provide for a sharp awareness of social

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\*These disparities are somewhat less when adjustments are made for household size.

disparities. Moreover, if we compare the income levels of the bottom quarter of the rural population, with the top quarter of the urban population, the difference in income is in the range of 15 to 1. Of course, the top 1/4 of the urban population does not represent substantial wealth. It is only when one starts looking at very small segments of the population that one finds very high incomes. Our point is not that most of Egypt's income is in the hands of a few, but rather that over the broad span of the population the differentials are quite significant.

#### Trends in Distribution\*

a) Saad Eddin Ibrahim in his paper "Social Mobility and Income Distribution" (Draft) prepared as part of the Egyptian Income Distribution Research Project gives an overview of recent Egyptian economic history from the point of view of equity. He identifies five phases:

1. The Hesitation Phase: 1952-56 - Concern was with consolidation of power and establishing legitimacy for the new regime. Land Reform Law aimed at weakening the landed aristocracy. The landed aristocracy, but not big capitalists at this point, lost a substantial part of its economic power base. The beneficiaries of this loss were the landless and small peasants near the bottom of Egypt's class structure.
2. The Consciousness Phase: 1956-60 - Escalation of awareness of economic issues. 1) national planning begins; 2) Egyptianization of most foreign interest including the Suez Canal Company, banks and insurance companies;  
3) laws reducing

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\*A full understanding of trends in distribution of income should take into account the fact that inflation impacts on different economic groups in very different ways. The fact that price controls and subsidization has held down the cost of items which account for a major share of the expenditures of low income groups (e.g. food) means that an inflation index based on their market basket would show less inflation than one for the economy as a whole. So far I am aware the quantitative significance of this has not been studied.

rents and fixing rules for rent levels 4) expansion of agricultural cooperatives.

-- Impact of these measures led to exodus of thousands of foreigners; positions are thus opened for Egyptian professionals. Moderate expansion of industrial activity creates greater demand for managers, engineers and skilled and semi-skilled manpower. Gains all achieved by the less well to do strata, particularly in urban areas because of urban rent controls; urban landlords lose.

3. The Socialist Transformation Phase: 1960-66 - Far reaching measures: a) expansion and consolidation of public sector b) the nationalization of: all big business in industry banking, insurance, construction, import-export, and tourism brings 80% of non-agricultural activities under state control. c) Second Land Reform Law limits land ownership to 100 feddan per family d) second rent control law reduces urban housing rentals by another 25% e) constitution stipulates that 50% of seats in all popular elective bodies go to workers and peasants. f) decreed that there be mandatory election of at least two workers to boards of directors of all companies and the appropriation of 25% of annual profits for workers in companies, g) initiation of new policy of employing all university and trade school graduates in state or public sector jobs. Public education expands at all levels.

--- "In terms of income, occupation, education and power, the third phase resulted probably in the biggest change in Egypt's stratification system in this century."

4. The Stagnation Phase: 1965-1970 - Serious military defeats, drain of Yemen War, termination of American aid. Loss of Suez canal revenues, displacement of nearly one million people from Suez canal cities. Investment in socio-economic development declines sharply. Egypt's rate of growth was not more than 1% annually. (per capita GNP levels decline).
  
5. The Socialist Retreat Phase: 1970- Nasser dies, Sadat comes to power, the October War occurs and the Open Door policy is enacted. The open door calls for revitalizing the private sector, opening the door to foreign investment, revoking certain aspects of the Land Reform Law, and indirect measures of currency devaluation. The impact on class structure is not clear. "There are indications, however, that some elements of the pre-revolutionary upper middle class are resurfacing. Upward social mobility is accomplished through private sector activities or through migration to oil rich Arab countries. Strata with fixed income seem to have suffered most in this phase." (page 11).

He offers the following analysis of household expenditures over these years:

Table 2  
 Percentage Distribution of Household Consumption Expenditure  
 1958/59 - 1964/65 - 1974/75

Percentage of Expenditure According to	1958/59		1964/65		1974/75	
	Rural*	Urban**	Rural*	Urban**	Rural*	Urban**
Lowest 20%	6.4	5.6	7.0	5.9	5.8	6.3
Second 20%	11.3	9.9	11.9	11.7	11.3	10.7
Third 20%	15.7	13.6	16.1	15.3	15.7	15.8
Fourth 20%	22.8	23.2	22.4	20.2	21.9	17.3
Top 20%	43.9	47.7	42.7	46.9	46.1	50.9
(Top 10%)	28.2	27.9	27.5	28.2	31.0	(29.3)

Source: \*Samir Radwan, The Impact of Agrarian Reform on Rural Egypt, Geneva: ILO, 1977, p.43 (Table 4.4).

\*\*Computed from Sample Household Budget Survey, Cairo: CAPMS, for 1958/59, 1964/65, and 1974/75.

The table shows a movement towards greater equity between 1958 and 1964, and then a movement towards greater inequality after 1964/5.

b) In a similar vein Ibrahim El-Issawy in his paper on Egypt's Income Distribution and Economic Growth, also written as part of the Income Distribution Project, describes the period from 1973/74 up to the present (1979) as one, "in which growth has been rapid, except in agriculture, and inequality tended to increase sectorally and inter-sectorally. This is the Infatah era which witnessed a slackening of inequality-reducing measures and encouraged private enterprise to contribute to growth regardless of distributional consequences. The subsidization program appears to have played a significant role in protecting the standards of living of the poor (though inflation negated a large part of the benefits), as well as in supporting growth."

... Growth policies contributed to the increase in inequality through the neglect of agriculture, the lack of employment growth in agriculture and its slow growth in industry, the changed character of the services sector, and the acceptance of inequality-promoting terms of foreign aid."

c) Radwan\* provides data on the distribution of rural household expenditures for 58/59, 64/65, and 74/75. Though these may not be comparable to other statistics they offer a view of the trend in distribution. (Of course, the distribution of expenditures is

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\*Samir Radwan, Agrarian Reform and Rural Poverty, Egypt 1952-1975, I.L.O., Geneva.

less unequal than that of income, as it ignores higher savings and taxes paid by the more well off.)

1958		1964		1975	
% households	% expenditures	% hholds	% exp.	% hholds	exp.
1.38	.19	.27	.02	2.0	.2
10.57	2.64	3.06	.50	4.7	.6
25.7	9.12	7.9	1.89	8.2	1.4
40.27	17.82	15.60	4.93	16.0	4.0
64.90	38.33	38.08	17.52	27.2	9.2
79.49	55.38	57.05	32.34	39.0	16.3
87.59	67.56	70.74	46.00	51.5	25.5
92.00	75.68	79.89	57.14	61.7	34.3
96.18	85.27	90.29	73.02	70.6	43.1
		96.83	87.08	81.9	56.3
				86.3	62.6
				92.8	74.6
				95.8	81.6

This data suggests that between 1958 and 1964 there was movement towards greater equality, but that between 1964 and 1974 there was a reversal. Thus,

- in 1958 the top 3.82% got 14.73		
1964	3.17%	12.92%
1975	4.2%	18.4%
in 1958 the bottom 40% got 17.8%		
64	38%	17.5%
75	39%	16.3

in 1958 the top 20.51% got 44.62%		
1964	20.11%	42.86%
1975	18.1%	43.7%

While his data is somewhat different, this conclusion, that there has been a "tendency to growing inequality after 1964/65" is also supported by Harik\*.

While there seems to be widespread agreement that in recent years there has been some movement towards greater income disparity, these conclusions should not be taken as definitive. Some of the material cited is still in preparation; the data base is not very solid; and there is some disagreement as to how significant any recent shifts towards greater inequality are. Moreover, from a stability/sense-of-injustice point of view, it is not statistics, even accurate ones, which are of the greatest importance. Rather it is the popular perception of what is occurring that is of most significance. It is also worth remembering that it is not easy to tell from aggregate figures exactly what distributive changes are occurring. It is possible to have a society in considerable turmoil with some people gaining quite significantly and others losing quite significantly but with the overall pattern of income shares remaining unchanged. It may well be that this is what is happening. Certainly the casual observer can get the impression that important changes in income are occurring. For instance, one

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\*Iliya Harik, Socio- Economic Profile of Rural Egypt,"  
March 15, 1979. P.95

is struck by the increase in the number of automobiles. Given import duties of 100% or more, each new car represents savings of \$10,000 and up. In the Cairo area it is estimated that there are a quarter of a million cars and that the number is increasing at 15,000 to 20,000 a year. Given that typical wages for unskilled labor are in the 400-1,000 LE range, and for skilled labor in the 700-2,000 LE range, it is clear that for the average Egyptian, acquiring a car is totally impossible. (If one saved 10% of a \$1,000 LE salary, it would take over 60 years to save enough to buy a car). Nonetheless, such accumulation is occurring. No doubt remittance income is a factor.

When you put together the changes in visible wealth, the high rates of inflation, and the underlying gradual shift in the distributive pattern, you have a basis for accepting the conclusion of many commentators on the Egyptian scene: most Egyptians feel that there is a movement towards greater inequality. *Dick*

In addition to income we should also consider the distribution of wealth. Unfortunately we have no general information about this. Most private wealth consists of land ownership. The most valuable land, of course, is in the urban areas, and we have no information on its distribution. There has, however, been considerable study of rural land ownership, and it is frequently believed that Egypt's revolution created great equity with respect to rural land ownership.\*

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\*Actually our information is on land holdings, which covers both ownership and tenancy, but rents are low and tenancy reasonably secure.

The World Bank provides data which compares the pre-revolutionary situation in 1952 to the situation in 1965:

	1952		1965	
	% owners	% area	% owners	% area
under 5 feddans	94.3	35.4	94.5	57.1
5-10 feddans	2.8	8.8	2.4	9.5
10-20	1.7	10.7	1.9	8.2
20-50	.8	10.9	.9	12.6
over 50	.4	34.1	.3	12.6

The change was not at all insignificant. It was most marked for the very small landowner and the very large. Roughly the same proportion of owners (94%) had plots under 5 feddans, but the average size of these plots increased from .8 feddans to 1.2 feddans, a 50% increase. At the other end of the spectrum the number of owners with plots above 50 feddans remained relatively constant. However, the size of the average holding in this category fell from 174 feddans to 84 feddans, a decline of almost 50%. The share of total land going to that 5% of land holders with plots in the 5-50 range remained largely unchanged.

However, even with the 1965 distribution it was still the case that the top 5.5% of owners held 43% of the land, and that the top 1.2% held over 25% of the land.

It is often pointed out that if all the land was divided equally, the holdings would still be small. This is quite correct. If

the 6,462 feddans in 1965 were divided equally, among all that presently hold land, the holding would be only 2 feddans. However, compared to the average holding in the less than 5 feddan category, this would represent a 66% increase; a larger relative increase than was accomplished by the revolution.

The above statistics can be rather misleading because they only refer to land holders. Thus, they leave out these at the very bottom of the distribution, the agricultural laborers that hold no land at all. This group is very large, and when they are added into the analysis, the distributive pattern changes significantly. The following chart is taken from Radwin's Agrarian Reform and Rural Poverty, Egypt 1952-1975:

Decile distribution of landholdings in Egypt, 1950 and 1961

Decile	Percentage share in landholdings	
	1950	1961
1	0.0	0.0
2	0.0	0.0
3	0.0	0.0
4	0.0	0.0
5	0.0	1.0
6	0.0	2.54
7	2.31	6.21
8	16.05	9.62
9	12.03	15.67
10	79.61	64.96
Gini coefficient	.889	.800

Viewed from this perspective Radwan sees the land reforms of the 50's as quite limited in scope. He says, "...by the 1960s and after the important phase of agrarian reform, land was flagrantly unequally distributed in Egypt. The table shows that in 1961, while the bottom 40% of the rural population had no land and half the population controlled only 1%, the top 10% controlled about 65% of the land. We believe that the situation must have worsened during the late 1960's and the 1970's in view of the fact that landlessness has increased, the supply of arable land remained more or less constant, and the land distribution programme during that period involved only marginal proportion of available land." (page 25)

Radwin also provides estimates of the number of landless families as a percentage of agricultural families:

1950	59%
1961	40%
1965	40%
1970	43%
1972	45%

He views landlessness as an increasing problem.

Radwan's conclusions about what has happened since 1961 are not universally shared. Iliya Harik in his recent study of rural Egypt concludes that the share of land under control by holders of 3 feddans or less has increased. Harik (page 96) notes however, that this finding appears to be at variance with his examination of incomes which concluded that since 1964 there has been a widening gap. He suggests, "This could be explained in part by the fragmentation tendency which created some 690,000 new near landless

farmers with less than one feddan each, and some 487,400 more in the group managing 1 to 3 feddans. In contrast income of medium to large size farms may have increased on the average with increasing shift among members of this group toward cultivation of vegetables and fruits."

Regardless of the specific figures, there is no doubt that even given the land reforms of the revolution, land ownership remained quite unequal. While from the perception of the American, almost all Egyptian farmers tend to be thought of as "small farmers", from the perception of the Egyptian, it is the relative differences which count. The difference between someone with 25 feddans and someone with 1 feddan is, no doubt, just as meaningful as the difference between someone with 1000 acres and someone with 40 acres. Moreover, it should be remembered that the value of Egyptian farm land is quite high, in fact it seems to be considerably higher than much American farm land. It is not unusual to hear of prices of several thousand dollars an acre. Thus, the wealth of someone with 10 feddans can be quite striking.

In addition, though we have no hard figures, it is widely believed that the value of land has been going up at a rate considerably greater than the general rate of inflation. Thus, for the great bulk of rural Egyptians with either no land or very small quantities, the possibility of acquiring land is rapidly receding.

Again we are not saying that Egyptian inequality is great from a worldwide perspective, it isn't. Egypt does not have the vast disparities in wealth holdings that one can find in some less developed countries. Nonetheless, the differences are great. Certainly, they are sufficient to dispel any tendency to be sanguine about distributional issues.

## B. Poverty

Poverty may be thought of as a level of socio-economic well being. This well being is affected primarily by two factors: 1) the individual's level of private consumption 2) the impact of public investments. These factors cut across the distinction between income and physical quality of life. Often income levels themselves are major determinants of physical quality of life levels. On the other hand, because of the significance of goods and services not purchased privately, (e.g. education, sewage systems) relatively high income levels are neither necessary nor sufficient to produce decent levels of economic well being.

### 1. Income

1978 per capita income in Egypt was \$400. To put this in perspective compare this level to that for other countries in the region:

Iraq	\$1,860
Algeria	1,260
Turkey	1,200
Jordan	1,050
Tunisia	950

Syria	930
Morocco	670
Yemen (N)	580
Yemen (S)	420
Egypt-----	400
Sudan	320
Afghanistan	240

On a per capita basis Egypt is one of the poorest countries in the middle East.

Because of the low level of per capita GNP, the implication of an unequal distribution of income, is the presence of of considerable absolute poverty.

The World Bank suggests that per capita absolute poverty income levels for 1978 be set at:

Urban	\$120	or	80 LE
Rural	86		59 LE

According to the Bank, the percentage of the population living in absolute poverty is estimated to be:

Urban	21%
Rural	25% (1977)

Other commentators set poverty levels at higher points and show substantially more people in poverty.

Radwan offers the following picture of the trend in rural poverty:

Table 4.3

An estimate of the rural poor in Egypt,  
1958/59, 1964/65 and 1974/75

1. Household income corresponding to poverty line (Egyptian pounds)	<u>1958/59</u> 93	<u>1964/65</u> 125	<u>1974/75</u> 270
2. Total population (000s)	25 832	30 139	36 417
3. Rural population (000s)	15 968	17 754	20 830
4. No. of rural families (000s)	3 224	3 345	4 166
5. Families below poverty line:			
% of rural families	35.0	26.8	44.0
No.	1 160 640	903 150	1 833 000
6. Population below poverty line:			
% of rural population	22.5	17.0	28.0
No.	3 592 800	3 018 180	5 832 400

His figures show a major increase in rural poverty between 1964/65 and 1974/75.

Iliya Harik challenges these numbers on the grounds that poor families are larger than non-poor families. While he shows a similar percentage of poor households, he shows vastly more poor individuals: living in poverty. However, he believes there has been some recent improvement.

Comparison of Estimates of the Number of Rural Poor Households  
and Rural Poor Individuals

Indicator	Radwan's Estimate	Hanik's Estimate
Percent of rural house- holds below poverty line	44	39
Number of households below poverty line	1,833,000	1,428,000
Percent rural population below poverty line	28	44
Number individuals below poverty line	5,832,400	9,165,000
Per capita poverty line used	LE 54	LE 50

Note: in our estimate the percentages are rounded to the nearest percent and the number of households and individuals are rounded to the nearest thousand.

These figures are aggregates for the entire rural area. They disguise the fact that poverty is much more common in some areas than in others. In Lower Egypt 50% of the households (in 1975) had incomes below 250 LE/year. In Upper Egypt, 63% of the households were below this level. If one focuses on individual governorates, the disparities are still wider.

2. Physical Quality of Life

Physical quality of life in Egypt (again, on the average) is somewhat higher than might be expected looking only at per capita income levels:

Life expectancy at birth.....52 (1973)

Infant mortality.....108/1000 (1974)

Per capita calorie supply as % of required	113% (1974)
% of population with access to safe water	75%
Adult literacy rate	44% (1976)
People per physician	1,193 (1976)
School enrollment as % of pop in age group: (1975)	
primary (5-14 yrs) male 52%    female 34.1%	
secondary (15-19) male 68.4% female 38.6%	
post secondary        18.6%                    8.3%	

In the area of food, water and education average conditions in Egypt are better than might be expected for a country with its low level of per capita income. This is particularly true with respect to the level of secondary school enrollment and access to safe water. With respect to life expectancy and infant mortality, the situation largely corresponds to the low level of income.

The above statistics however, dealt only with averages for Egypt as a whole, not with relative poverty in Egypt.

Quality of life between urban and rural areas differs significantly:

- Illiteracy serves as an interesting guide:

In 1976 roughly 80% of rural females over age 10 were illiterate.

In urban areas 46% of females were illiterate.

For males 48% in the rural areas were illiterate while only 25% in the urban area were illiterate.\*

Urban/rural differences also emerge when looking at source of potable water:

	(%'s)			
	Urban	Rural	Cairo	Alexandria
Tap in dwelling	61	4	70	78
Tap outside dwelling but in building	9	2	11	12
Source outside building	10	58	17	9
Without any source	12	36	2	-

Source: Institute of Medicine, Health in Egypt p. 53

John Fields and George Ropes of MIT have made a good beginning to the much needed investigation of the distribution of physical quality of life levels in Egypt. The following chart taken from their paper, "Development in the Egyptian Governorates: A Modified Physical Quality of Life Index" provides a breakdown by governorates of three main components of quality of life. It also combines this information into a single physical quality of life indicator. As can be seen from the chart, there are dramatic differences between governorates. (see next page)

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\* ARAB Republic of Egypt, World Bank Vol VI p.7

A Modified Physical Quality of Life Index for the Egyptian Governorates  
in Internal Comparison, Plus Components

	<u>Internal PQLI*</u>	<u>Value</u>	<u>Score</u>	<u>Value</u>	<u>Score</u>	<u>Value</u>	<u>Score</u>
1. Port Said	95	48	100	60	88	87	96
2. Suez	78	60	86	56	78	65	69
3. Alexandria	77	103	35	63	95	90	100
4. Cairo	65	122	6	65	100	81	89
5. Damietta	57	85	56	51	65	50	50
6. Ismailia	51	74	69	49	60	30	25
7. Dakahlia	45	79	64	44	48	29	24
8. Giza	40	109	28	47	55	40	38
9. Kafr-el-Sheik	38	55	92	30	13	17	9
9. Gharbia	38	99	40	45	50	29	24
11. Behera	36	71	73	34	23	20	13
12. Sharkia	30	89	52	37	30	16	8
13. Kalyubia	28	118	18	46	53	20	13
14. Kena	27	75	68	29	10	12	3
15. Menufia	23	115	21	43	45	13	4
16. Assiut	22	98	41	31	15	17	9
17. Souhag	21	88	53	27	5	14	5
17. Aswan	21	132	1	44	48	22	15
19. Beni-Suef	18	106	32	32	18	12	3
20. Fayoum	15	97	42	26	1	12	3
21. Minya	15	103	35	29	10	11	1
EGYPT	39	98	41	43	45	34	31

Source: John Field and George Ropes, "Development in the Egyptian Governorates:  
A Modified Physical Quality of Life Index, Jan. 1979

In some areas almost everyone has access to pure water, in other areas almost no one does. In some areas infant mortality is well over 100/1000; in other areas it is as low as 48/1000. Furthermore, it is not unusual for a governorate to rank very high with respect to one aspect of physical quality of life and very low with respect to another. Thus, Cairo is scored a 100 for literacy, but only a 6 for infant mortality, and Kena is scored a 68 for infant mortality 10 for literacy and a 3 for pure water. What the chart makes clear, aside from the vast differences in physical quality of life, is the need for a careful matching of resources to problem areas.

A second chart puts the differences in PQL of Egyptian governorates into an international perspective. Here, the governorates are each treated as though they were separate countries. As can be seen from the chart, it is not very helpful to speak of The physical quality of life of Egypt. Depending on the area under consideration the PQL may be near that of Sri Lanka or of Haiti. We have almost as much difference inside Egypt as we have within the developing world as a whole.

A Modified Physical Quality of Life Index for the Egyptian Governorates  
in International Comparison (Drawn to Scale)

<u>External PQLI* by Governorates</u>		<u>Country Equivalents: PQLI</u>
		<sup>a</sup> Sweden (98), Argentina (85), Cuba (84), Sri Lanka (82), Lebanon (79), Chile (77)
1. Port Said	76	Guadeloupe, Kuwait (75)
2. Alexandria	70	Colombia (71), Phillipines (71), China (69)
3. Suez	66	Malaysia
4. Cairo	64	El Salvador, Dominican Republic, Bahrain (61)
5. Damietta	56	Turkey, Syria (54)
6. Ismailia	50	
7. Dakahlia, Giza	47	Jordan, Tunisia
9. Gharbia	44	Iraq (45), Libya (45)
10. Kafr-el-Sheik, Behera	42	Algeria (41), Morocco (41)
12. Sharkia, Kalyubia	39	Kenya, Pakistan (38)
14. Kena, Aswan	37	Papua New Guinea
16. Menufia, Assiut	36	Haiti, Sudan
18. Souhag	35	Bangladesh, Swaziland, Ghana, UAE (34)
19. Beni-Suef, Fayoum	33	Yemen (People's Republic)
21. Minya	32	Zaire, Qatar (31)
		Saudi Arabia (29), Yemen Arab Republic (27), Somalia (19), Guinea-Bissau (12) <sup>b</sup>

Having developed these PQLI for the Egyptian Governorates, Field and Ropes go on to explore the relationship between high levels of PQL and other factors. They make several interesting points about the Egyptian situation:

1. There seems to be no tendency for governorates high in value of their agricultural produce to be high in physical quality of life.
2. Similarly, high average per capita income derived from agriculture in governorates does not correlate positively with high physical quality of life.

They conclude,

"When viewed in terms of conventional economic development indicators - productivity and income - the economic performance of Egypt's rural governorates says nothing about living standards as measured by the PQLI. The reasons are not difficult to discern. Aggregate growth is one thing; distribution is another. Similarly, incrementally greater productivity and income have no necessary spillover effects on infant mortality rates, literacy and the availability of purified water."

They note however, that when one focuses on distribution of income one finds a significant relationship with PQL. "The larger the number of rural poor in a governorate, the lower the PQLI\*.

Finally, they determined that the higher the physical quality of life, the lower the birthrate in Egypt, and more significantly, that this pattern "withstands controls for agricultural productivity, rural income and urbanization. They state:

"The PQLI\* is not simply a blind for other kinds of change. On the contrary, it represents one kind of change (dispersed

benefits) that really counts in fertility reduction. We might add that neither our measure of agricultural productivity nor our measure of income derived from agriculture relates significantly to the birth rate at all. It would appear that, in and of itself, general economic growth in Egypt will have little bearing on fertility, much as it has little bearing on popular well being. What it is going to take for the birth rate to come down significantly and fast are improvements in the human condition, notably access to purified water, a dramatically reduced incidence of infant mortality, and expanded literacy: the ingredients of the PQLI\*."

Needless, to say, these conclusions are far from definitive.

Nonetheless, they do suggest:

- that distribution of income is not just an equity concern; it impacts on critical developmental problems (e.g. population)
- that in dealing with poverty in Egypt it will be insufficient to focus on overall economic growth in the rural areas, considerable attention will have to be paid to who benefits, and to the provision of public services.

C. Employment

The strategy which is being presented will place a major emphasis on employment. There are several reasons for this emphasis:

1. Egypt has significant underutilization of existing labor resources. These represent untapped potential for economic growth.
2. For the foreseeable future, Egypt's labor resources will be increasing at a very substantial pace. This increase should be viewed as a plus, as an expansion of productive inputs; however, it will be a challenge to take full advantage of this increase. If it is accomplished, increased labor resources will account for a substantial part of Egypt's future economic growth.
3. The prospect of increased unemployment raises dangers of political destabilization.
4. Employment, and especially employment in jobs with meaningful levels of productivity, is a powerful tool for promoting equity and for overcoming poverty. As such it can further enhance security objectives, as well as compliance with our legislative mandate.

5. The search for better jobs is the primary motivation for migration to major urban centers. Targeted employment creation/productivity enhancement can help in affecting migration flows.
6. In a tight labor market, more opportunities will be created for women. This is desirable both from the point of view of our population objectives as well as from our equity, and legislative compliance objectives.
7. Unless special efforts are made to increase employment, the expansion of employment resulting from expected economic growth will not be adequate to our objectives. (see pp. 55-57).

In short, employment is central to our objectives of growth, equity, stability, and restraining population growth.

#### Labor Force Utilization

Labor force is a two edged-sword. On the one hand, labor is a productive input. Expansion of employment implies an expansion of economic output. Indeed, growth in employment is often the primary cause of growth in output.\* On the other hand, growth in labor force raises the possibility that employment will not be able to keep pace, and that as a result unemployment will expand, bringing with it well known personal, social and political problems.

\*See in this regard the work of Edward Dennison of Brookings (Accounting for Economic Growth, Why Growth Rates Differ etc.)

The first question to answer is: "How well is Egypt using its existing labor resources?" I would suggest that the short answer is "poorly."

Failure to make full use of a country's labor supply emerges in a variety of ways. The most basic are:

- overt unemployment
- widespread part time unemployment
- disguised unemployment (e.g., redundant workers, make work jobs)
- low participation rates (potential labor does not enter the job market and thus is not even categorized as unemployed)
- underemployment (e.g., full time employment making minimal use of workers productive potential).

There is more agreement about the general picture of labor force utilization in Egypt than there is about the actual numbers. But even the general picture is sometimes unclear.

1. The Egypt country profile prepared by the U.S. Department of Labor in 1979 presents a rather dismal picture.

The Report states:

"Unemployment has not been measured accurately in Egypt. The Ministry of Planning estimates the unemployment at 1.5 million, or 11.5% of the labor force. Total unemployment and underemployment are estimated as high as 30 percent. For rural areas, one half the workers work an estimated average of 180 days per year."

"In the large cities, millions make a living by casual, unskilled labor, as street vendors, part time construction workers or in other marginal activities. The problem has become worse as population and labor force have grown faster than jobs."

"An estimated 350,000 new jobs would be needed each year to keep unemployment from rising. The Government has tried to avoid the problem of educated unemployment by guaranteeing a job in government or the public sector to all university graduates. In government and the public sector enterprises, employment is estimated at 20 percent to 25 percent above actual need."

Thus, there is disguised unemployment of major magnitude in the public sector, open unemployment on a major scale, and significant part-time-only employment in the rural sector. In addition, there is extensive very low productivity employment.

The report also notes that there are shortages in some skilled and technical areas and that seasonal agricultural shortages have been reported.

2. The Egyptian Government's 5 year plan 1978-82 shows the 1976 labor force at 11,107,000, and employment at 9,628,000. This implies unemployment of 1,479,000 persons. However, the plan also shows this same number (1,479,000) for overt and disguised unemployment. Because they do not explain what

by "disguised unemployment" it is hard to tell what they have in mind.

3. The World Bank's recent study puts 1976 employment at 9,628,000, the same number which appears in the 5 year plan. However, the Bank works with a much lower labor force number and reaches the conclusion that there is almost no overt unemployment. However, the study goes on to say of unemployment numbers, "They represent only the tip of the iceberg of the underutilization of labor, which is manifested more seriously in low-productivity employment and low rates of participation in the labor force, particularly among women." The report points out that "the labor force participation rate, unusually low by world standards, was actually on the decline in Egypt between 1947 and 1972, from 37 percent to 27 percent. In the 4 years to 1976 it staged a recovery, but at 31.5 percent it is still below participation rates for countries at a similar stage of development."

Labor force participation rates presented in the Bank study are: (on following page)

Table 1.5: LABOR FORCE <sup>1/</sup> PARTICIPATION RATES

Percent

Year	Females %	Males %	Total %
1937	7.9	65.1	37
1947	7.8	62.8	37
1960	4.8	55.2	30
1966	4.2	50.8	28
1970	3.5	49.5	26
1972	4.0	50.7	27
1976	9.2	52.9	31.5

Sources: Population Census 1937, 1947, 1960, 1966 and 1976, and Labor Force Sample Surveys, CAPMS.

1/ Defined as people age 6 and over.

Though somewhat overdramatic because it ignores non-civilian employment, the age distribution of the population and the fact that more children are in school, it remains the case that between 1947 and 1976 population grew 100 percent and total employment went up by only 38 percent. In agriculture there was almost no increase over the last 30 years.

Our conclusion then is that Egypt makes considerably less than full use of her most abundant resource: labor. Capturing these wasted resources should be a major source of growth.

#### Future Labor Supply

Egypt's potential labor resources are not static. Quite the contrary, they are growing rapidly. From our various points of view: growth, stability, equity, it is important to have a relatively good fix on just how great an expansion is taking place and of whether or not development policies will result in an increasing failure to utilize these resources.

A central point to focus on is the increasing number of people that will be entering the labor force. However, we should remember that the flow of people into the labor force is itself, in part, a function of

employment opportunities. The caveat to bear in mind is that labor force should not be equated with potential labor supply. Only when there are ample good employment opportunities will the labor force approximate potential labor resources.

Labor force numbers are a function of two factors, population size, and the rate of participation of the population in the labor force. Since entrants into the labor force over the next 15 years have already been born, we can get a relatively good fix on the population side. With respect to participation rates, we can be less certain. We do have age and sex specific participation rates; thus, we can deal with the fact that different groups in the population have markedly different participation rates. We also know that female participation levels have been increasing and we can expect this trend to continue. As economic projections go, labor force numbers are usually fairly solid. Thus, it might seem possible to get a rough consensus with respect to labor force size in the coming years.

Unfortunately, with respect to this crucial variable, growth in the labor force, the estimates jump all over the map. On one hand we have the U.S. Department of Labor profile which states that, "Because the population contains so many young people, the labor force is growing

rapidly, about 5 percent a year; double the population growth." On the other hand, the 1982 CDSS cites a figure of 2.2 percent as the level for projected labor force growth. It would be hard to overemphasize the importance and the extent of this difference. At a 5 percent rate of increase the labor force would double in 14 years. At a 2.2 percent rate it would double in 32 years. Starting from a present level of around 11 million, at 5 percent rate of growth, in ten years, the labor force would be 18 million; with a 2.2 percent rate it would be 14 million.

A development strategy based on the lower number and in fact generating only that number of new jobs, would be disastrous if in fact labor force expanded to 18 million. The implication would be overt unemployment of 20-30 percent.\*

Upon reflection, it appears that both numbers are seriously wrong. A more accurate figure can be obtained from the GOE 5 year plan. It showed the following projected levels of labor force: (on following page)

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\*In fact, this would not happen. Instead, large numbers of workers would find marginal forms of employment. While others would simply drop out of the labor force altogether.

LABOR FORCE (1,000's)

		<u>Percentage Increase From Previous Year</u>
1976	11,709	
1977	12,081	3.2
1978	12,463	3.2
1979	12,853	3.1
1980	13,250	3.1
1981	13,699	3.4
1982	14,152	3.3
1983	14,622	3.3
1984	15,093	3.2
1985	15,577	3.2
1986	16,071	3.2
1987	16,612	3.4

In order to test these numbers we have made our own projections using the following procedures:

1. We started with 1976 age and sex data on the population.
2. With the use of age specific death rates, we aged the 1976 population so as to get an age/sex specific population for the group 15-65, for the years 1981, 1986 and 1991.

3. We then utilized age/sex specific participation rates for Egypt for 1975 (this tends to bias the totals downwards since rates have been rising and rose significantly between 1972 and 1976.)\*

We arrived at the following figures for total labor force:

		<u>Compound Rate of Change</u>
1976	8,861	3.0%
1981	10,298	2.9%
1986	11,926	2.9%
1991	13,798	

We then recalculated the numbers assuming growth in the female participation rate (a doubling of the female participation rate by the end of the period). This is not as ambitious as it sounds. Our 1975 participation rates averaged 4.1 percent for women, as opposed to the 9.2 percent figure reported by the World Bank for 1976. Even a tripling of the 4.1 percent level is within the range of possibility for the period to 1991. Our results were: (see following page)

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\*Our numbers are also somewhat lower in absolute terms because we are using the 15-65 year age group rather than the 12-65 group used in the 5 year plan. This however, should not significantly affect the rates of change.

Doubled Female Rate

1976	8,861
1991	14,742

The impact of this growth in female participation is striking. Between 1976 and 1991, with a doubling of female participation, the total labor force grows at a compound rate of 3.4 percent.

Thus, depending on the assumption with respect to female participation, our labor force growth estimates range from 2.9 percent to 3.4 percent. The GOE estimate is 3.2 percent. They worked with a somewhat slower increase in female participation than we did with our high side estimate (3.4%).

Their numbers also assumed growth in the percentage of young people in school. While we recognized that there will be increases in absolute numbers of students in school, we did not assume increased percentages. All in all, we feel that our estimates provide a general confirmation of the GOE numbers as found in the 1978-82 five year plan. For our purposes then, we will accept their projection of 3.2 percent growth as a reasonable basis for strategy development.

The difference between 3.2 percent and 2.2 percent is quite significant. At 3.2 percent the labor force will double in 22 years; at 2.2 percent it will double in 32 years. As a final confirmation of the reasonable-

ness of the 3.2 percent level we note that the rate of natural increase of the population has been 2.3 to 2.8 percent in the last few years. It is not at all surprising that labor force growth will be somewhat higher.

### Employment Targets

Given our expected expansion of the labor force, we can proceed to develop employment targets for the coming years, and then raise questions about policies that will be needed to reach those targets. In developing targets we should bear in mind the following:

1. In order that overt unemployment does not expand, the growth in employment must, at a minimum, equal the growth in the labor force.
2. If we start from a position of significant overt or disguised unemployment and, if we want to impact on these problems, employment growth must be greater than labor force growth.
3. As part of our approach to population problems we are looking forward to sufficient tightness in labor markets so as to pull large numbers of women into the formal sector.

With the partial exception of the 3rd factor, these have been built into the employment projections found in the 5 year plan. However, from our point of view, these cannot be viewed as realistic projections.

Rather they must be viewed as targets, the achievement of which would promote key objectives of equity, growth and stability.

Our targets, the employment levels "projected" in the 5 year plan are as follows:

		<u>Percentage Increase from Previous Year</u>
1976	9,628	
1977	9,988	3.73%
1978	10,350	3.62%
1979	10,738	3.74%
1980	11,135	3.70%
1981	11,642	4.55%
1982	12,160	4.25%
1983	12,729	4.67%
1984	13,325	4.68%
1985	13,957	4.74%
1986	14,617	4.70%
1987	15,324	4.80%

Employment at these levels would be sufficient to reduce substantially the level of obvious and disguised unemployment cited in the plan. Note, however, that these numbers are for domestic employment. They assume modest expansion of the number of Egyptians working abroad. If for some reason these workers had to return to Egypt, then it would be necessary to raise the employment

targets. The GOE numbers between 1980-87 assume an increase in women in the work force at an annual rate of 4.5 percent. They are also based on the assumption of substantial increases of the numbers of young people in school and not working.

While it might be possible to refine these numbers further, they will serve quite well as reasonable employment targets. They call for growth in employment between 1976 and 1986 of 5.7 million, or about 60%. On an annual, compound basis this is growth at 4.3 percent.

At the beginning of the period an annual increase of 350,000 employed is called for. By the end of the period this has risen to 700,000 a year.

The key question is "can Egypt achieve this level of employment?" To put this into perspective, we should realize that in the 5 year plan, it was believed that this level of employment could be attained because of a very high growth rate.

In the plan the annual rate of growth of GNP was put at about 12 percent. In a recent paper presented to the Consultative Group, the GOE has revised downward its predicted growth rates for GNP. For the 1980-84 period the new figures show a 9.5% annual rate of growth.

Accordingly, the Consultative Group paper backs off significantly from the employment gains predicted in the 78-82 plan. The new figures are:

<u>Employment In New Paper</u>		<u>Employment Projected in 78-82 Plan</u>	
1979	10.4 million (actual)	1979	10.7
1984	11.9	1984	13.3

In the new paper, employment is expected to grow 1.5 million between '79 and '84, as opposed to the earlier prediction of a growth of 2.6 million. One might expect that the more limited rate of growth in employment (2.7 percent) would signify increasing unemployment in the face of labor force growth that was predicted at 3.2 percent. However, the new paper speaks of an average annual increase in the labor force for the 5 year period of 225,000 a year. This represents a labor force growth rate of 1.8 percent. Needless, to say, this is a phony number, significantly below population growth. The new employment projections represent the implicit prediction of a failure to keep up with growth in the labor force. Furthermore, it should be remembered that the GNP growth rate now being predicted for the coming five years, may itself prove to be overly optimistic. After all, 9-10 percent growth in real GNP is quite impressive!

In fact the current CDSS (1982) suggests that 8 percent growth would be more realistic. If this is so, then employment growth will be even lower.

From all this we reach the conclusion that Egypt is going to have to make very special efforts at job creation if it is to accomplish its objective of fuller utilization of the labor force. Indeed, special efforts will have to be made just to prevent a serious growth in unemployment. Left to itself, even with substantial economic growth the economy simply will not produce enough jobs.

#### "Employment Focus"

It is important to make clear that in calling for an "employment focus" we are not advocating a single objective, say, job creation, as the be all-and end all of development. Rather, we are urging that employment be seen as a central nub which is at the heart of economic/social activity and which will connect up with the central problems of the society. Our concern is with what might be termed "the employment pattern" (the number of jobs, the type of jobs, their geographic dispersion, who gets them, the relation between employment and education, the income streams derived from employment, etc.)

It should be clear that there are several different objectives:

1. increasing the number of jobs,
2. raising the productivity of existing jobs/  
insuring that new jobs are at reasonable levels  
of productivity,
3. insuring that all jobs provide an income stream  
sufficient to keep a small family above the  
poverty line.
4. reducing the income gap that exists between  
urban and rural areas, and between large urban  
centers and small towns,
5. achieving a general improvement in the equity of  
the overall distribution of income.

In addition one could list several systematic objectives:

- ensuring that there is equality of opportunity  
(access to necessary training including financial  
means, openness to job entry, etc.)
- ensuring that there is a reasonable fit between  
the kinds of labor skills in demand and the kind  
of training/education received.

It is important to remember that some of these objectives may compete with other objectives. Thus, it is not the case that for anyone of them we are interested in maximization. For instance, by spreading available

capital thinner and thinner, one could increase to higher and higher levels the quantity of labor required to perform a given task. To take an absurd example, by reducing the size of shovels or by making the cost of large shovels ten times as expensive as small ones, one could increase the number of workers, (or man-years) demanded. This, of course, would be foolish. The objective is not to use less and less capital; rather, it is to distribute the available capital in a manner which most successfully meets a range of social and economic objectives. Thus, alternatively, while one could raise the productivity of particular groups of workers to very high levels, this would reduce the average amount of capital available for the remaining members of the labor force, and would have detrimental implications for their income levels and for the overall distribution. In short, "job creation" "improving productivity". "achieving equity" are terms which indicate objectives, but they cannot be pursued blindly without awareness of interactions.

Secondly, it should be realized that while trade offs do exist and have to be made, it is often the case that two or more objectives can be advanced by a given decision. For instance, when factor prices are distorted as in Egypt, (capital is priced below its real cost to the economy, and labor is priced above its real cost),

the decisions that are made in the marketplace are not going to maximize the level of outputs. Correcting for distorted factor prices will result not only in increasing employment, it will also result in increasing output.

Thirdly, it should be recognized that the market, even when factor distortions have been eliminated does not automatically produce "correct" allocations of resources. This is so for two very different kinds of reasons. First, given a range of different objectives to be pursued, and a range of different views about their relative importance, there is no agreed-upon hierarchy of outcomes, and thus, there can be no "correct" allocation in principle. This is not to say that there cannot be widespread agreement that some results are superior to other results, but rather that given a significant range of differences in values (e.g., how important is equity? how important is economic growth once absolute poverty has been overcome?) There will be different "preferred" allocations. Secondly, there are a range of concerns of a political, social and economic sort which are often not taken into account in marketplace decisions because the relevant benefits or burdens do not impact on the marketplace decision-makers. These are generally referred to as "externalities". The favorite textbook example of an

externality is pollution, the cost of which the society as a whole has to bear, but which does not enter into the industrialist's decision when he does his cost, benefit analysis in determining whether or not to make an investment. With respect to employment creation in Egypt, many of the most important social and political factors do not enter into marketplace decisions. These include impacts on political stability, impacts on migration, impacts on overall distribution and impacts on population growth. The policy maker who wants to emphasize these concerns and sees them as importantly affected by specific employment/investment configurations will have to find policy tools for promoting the outcomes he seeks. They will not be achieved by the marketplace automatically.\*

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\*This is not to say that the marketplace cannot be used as a device for achieving desired outcomes. Economists speak of "internalizing the externality" of making a societal cost or benefit relevant to a marketplace decision maker. For instance, in the pollution example, text books point out that one could tax the polluter at a level commensurate to the burdens placed on the community from the additional pollution. Thus, his costs and benefits are brought into line with the society's costs and benefits. With respect to creating employment, if the society gets an extra benefit from additional employment, to some extent, one could seek to adjust the factor prices faced by the potential employer so as to skew his decisions towards activities which utilize relatively more labor, or towards an investment in certain regions rather than in others.

It is important to bear these considerations in mind because in Egypt we have been trying to promote private sector activity; we are keenly aware of the inefficiencies that have been associated with the public enterprises, and there may be a tendency to imagine that private sector decision making will automatically result in appropriate allocation decisions. This does not occur even if we have perfectly competitive, distortion free markets.

Employment Overview

The following table provides an overview of employment, actual and projected, as found in the 1978-82 plan:

Employment projections in 1978-82 plan by sector

	1976	%	1987	%	productivity (1975 prices) (pounds/worker)		Compound Annual	
					1976	1987	% incr.	Rate
Agriculture	4,223	44	5168	34	503	613	22%	1.8%
Mining & petroleun	46	.5	79	.5	11372	57340	404%	13%
Industry	1163	12	2295	15	3003	4431	48%	3.6%
Electricity	47	.5	107	.7	2085	3557	70%	4.9%
Construction	434	4.5	1099	7	1198	2315	93%	6.1%
Transportation, Communication, & Suez Canal	422	4.4	925	6	1229	2751	124%	7.5%
Commerce, Finance, Utilities, Housing & other services	3291	34	5667	37	838	1220	45%	3.4%
Total	9626	100%	15340	100%				

While we do not regard these numbers as realistic forecasts, we have taken the employment aggregate as an appropriate target.

We note:

1. There are only 3 broad areas of considerable employment: 1976

agriculture	44%
Commerce, finance, utilities, housing & other services	34%
industry	12%

The Commerce etc. category appears to be a "catch all" including some government workers and street vendors as well as diverse service workers.

2. Between 1976 and 1987 the plan projects an increase in employment of 5.7 million. The major increases are:

commerce, finance, utilities, housing & other	2.4 million
industry	1.1 million
agriculture	.9 million
construction	.6 million
3. The agricultural increase of .9 million is not fully credible. Moreover, because they show this expansion in employment, the rate of increase of productivity per worker is held down to annual rate of 1.8%. This is by far the lowest for any sector, and would imply a widening gap between agricultural incomes and non-agricultural incomes. If agricultural employment does not expand, then other sectors will have to expand even faster.

IV. Sectoral applications of an employment focused strategy:

In this section we will consider various sectors from the point of view of our strategy approach.

What follows is not a full discussion of the sectors, but rather the highlighting of certain specific applications of an employment focus to the sector.

A. Economic Status of Women/Population

1. There are several different points of contact between our "employment focused" strategy and issues concerning women and population growth:

- (1) In the long run population growth is the major force behind labor force growth. While for any given population size, growth in labor force (actually growth in employment) tends to increase real per capita GNP, growth in population expands the group among whom any given output level must be shared, and insofar as it results in an expansion of the labor force, it results in further dilution of per worker levels of productive inputs, (e.g. land, capital). In Egypt, past and present population growth is one of the major reasons for low levels of worker productivity and for low levels of per capita GNP.
- (2) Improving the economic status of women, in particular, improving the education, labor force participation rate and job status of women, can play an important role in slowing population growth.
- (3) Women themselves represent a key target group in an employment strategy, both as an economic resource presently underutilized and also from an equity standpoint.

Any development strategy for Egypt must give special emphasis to reducing population growth, and we assume that AID's program

will do so. In this section, however, we shall not discuss direct approaches to the population problem; instead we will focus on 2 & 3 above, on improving women's economic status as a way of impacting on population, and as a way of increasing economic output and equity.

2. Women's Economic/Educational Status and Population Growth

In industrialized countries there is a fairly straight-forward relationship between women's education and employment on the one hand and fertility on the other. Generally speaking, as education levels and employment levels go up, birth rates decline. In less developed countries there is a more complex picture. Not all increases in education are associated with increased economic activity. Not all forms of economic activity are associated with lower levels of fertility. Moreover, since larger families can necessitate female employment, it is often not easy to distinguish causal patterns and to separate statistical correlations from causal connections.

Nonetheless, it does seem to be the case that to the extent that female patterns of education and employment resemble those in industrialized countries, there is the expected reduction in family size. For instance, fertility levels may be high among rural women workers engaged in household centered production; however, they are relatively lower among women that work for wages outside the home. A recent study of Jordanian women shows the kind of relationship between education and size of family one might expect in any industrial society:

<u>Education</u>	<u>Number of respondents</u>	<u>Living Children</u>	<u>Additional children desired</u>	<u>Total children</u>
Illiterate	1,533	3.8	4.5	8.3
Primary	605	2.5	3.5	6.0
Preparatory & secondary	405	1.6	3.0	4.6
Higher education	30	1.6	2.2	3.8

The table indicates that higher education correlated with fewer children as well as the desire for smaller families. With respect to the desire for children, the number desired decreased even when women with secondary school education were compared with women with higher education. These numbers do not prove that increasing education will result in fewer births. It could be that the same factors that lead to women having more education also lead to their wanting and having fewer children but that increasing their education level per se will have no impact. There is no doubt that the causation is complex, that it works in both directions, and that other factors are also involved. Nonetheless, it is a reasonable assumption to make, that education itself contributes to the desire for smaller families as well as to the fact of smaller families.

The study also considered why women approve of family planning:

<u>Reasons for approval</u>	<u>Illiterate</u>	<u>primary</u>	<u>preparatory</u>	<u>above prep.</u>
mother's health	52%	41%	28%	28%
economic factors	24%	28%	32%	35%
adequate care for children	16%	22%	28%	23%
nation too large	.05%	.6%	.2%	2.5%

These are the percentages within each group that emphasized one or the other of the reasons listed. Of particular interest is that fact that in each group, economic factors for favoring family planning emerged as significant, and that as the educational level rose, this factor was more frequently offered as the primary reason. Indeed, for women with preparatory school education and above it appears to be the prevalent reason for approving of family planning.

One conclusion which is supported by this and similar studies is that the positive association of education with smaller families does not stop with primary school education. Thus, investments in higher levels of education may also provide additional gains on the population front.

With respect to employment, the literature suggests that it is not employment per se which is the key factor. Indeed, once we get into the details of the rural economy, it becomes clear that almost all women are actively engaged in economic activity even if they do not get paid for it. What seems to matter is the kind of employment, employment which gets the women outside the home, employment for which she gets paid, and which contributes to an altered sense of her role and identity.

#### 1. Female Employment

Female employment in Egypt is very low. The following shows the percentages of women aged 6 and over who were in the labor force in comparison to men.

	<u>females</u>	<u>males</u>
1937	7.9%	65.1%
1947	7.8	62.8
1960	4.8	55.2
1966	4.2	50.8
1970	3.5	49.5
1972	4.0	50.7
1976	9.2	52.9 *

Of course, to a large extent this ignores the fact that a great many Egyptian families are on farms, and that women's work on farms is generally not counted as employment. Nonetheless, the figures are so low as to demonstrate a clear failure to utilize a large chunk of potential resources. If we focused only on the 50% of the population in urban areas, it is doubtful that more than 15% of the women are employed. Yet this 1/4 of the adult population (women in urban areas) could, in principle, make a tremendous addition to Egypt's economic growth. For instance, if this group had employment rates equal to those of their American counterpart, the Egyptian workforce would swell by 1-2 million, an increase of 10 to 20%.

There are a variety of reasons why more women are not employed. These include:

- inadequate demand
- discrimination
- lack of proper training

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\* World Bank, op. cit. Vol VI, p. 5

- other responsibilities
- low wages
- cultural barriers

Without doubt, however, the most important factor is demand. When demand for labor is very strong it can overcome other factors, wages rise, cultural barriers are weakened, discrimination becomes less relevant and training can be provided. Unless aggregate demand is rising, measures to increase female participation in the work force, even if successful, will mean a substitution of female for male labor. Thus, one form of underutilization will replace another. The fact that female participation more than doubled between 1972 and 1976, rising much more significantly than male participation, is, no doubt, closely related to the major exodus of male workers for jobs abroad.

The following table provides information on the kinds of jobs held by women:

% Distribution of Economically Active Female  
Population 12-64 in Non Agricultural Sectors  
By Occupation and Industry Branch. Egypt 1976

<u>Women Economically Active in all Occupations</u>	<u>530,000</u> (100%)
Professional	26.1
Administrative Managerial	1.8
Clerical and related	20.1
Sales	6.3
Production process workers, Transport Equipment Operators and Laborers	8.8
Service Occupations (incl. domestic)	13.4
Not Classifiable (incl. unemployed)	23.5
 <u>Women Economically Active in all Industry Branches</u>	 (100%)
Extractive	.1
Manufacturing	12.5
Construction	.7
Electricity & Gas	.6
Commerce	8.9
Financing, Insurance, Real Estate and Business Service	2.2
Transportation	2.7
Public Administrative Services	48.8
Not Classifiable (incl. unemployed)	23.5

Source: I.L.O., op. cit.

Table taken from Youssef, op. cit.

We can note the following:

- A very large percentage of women are professionals, and most of the employed women work for the public administrative sector. This reflects the government policy of guaranteeing jobs to university graduates. It is also an area in which there is considerable labor redundancy. Thus, we have something of a conflict between our desire to see more women in the workforce and our interest in reducing redundancy in the public sector. We should not see this area as holding major potential in the future.
  
- The table does not include the agricultural sector, but as we have noted previously, there is little reason to expect increased labor demand in that sector, nor are they the kind of activities that tend to result in lower fertility rates.
  
- Interestingly, the table shows that roughly 9% of the women were production process workers, transport equipment operators and laborers. Viewed in terms of industry, 12.5% worked in manufacturing. Moreover, between 1960 and 1976 the percentage of employees in manufacturing that were women increased from 3.3% to 5.3%. This suggests that it is possible for women to hold blue collar jobs in Egypt. We should look towards the expansion of industry as one possible place for increasing numbers of women to find employment.

#### 4. Strategy directions

1. We should place considerable emphasis on the objective of increasing the number of women in the workforce. Progress in this area will contribute to a wide range of objectives: economic growth through fuller use of productive inputs, lower population growth rates, equity.
2. The primary factor to emphasis is increased expansion of the aggregate demand for labor. This should be coupled with activities specifically directed at obstacles facing women. Here as elsewhere we should give priority to the poor.
3. Specific targeted actions on the policy or project level might include:
  - insuring that women will be employed in all AID funded activities
  - specific training programs for women in labor shortage areas
  - targeting some part of our private sector encouragement activities on industries which tend to employ relatively large numbers of women
  - improving rate of female school enrollment, especially in rural areas, and in vocationally oriented curricula.
  - focussing on off-farm employment for women in rural areas, especially employment which builds on activities in which

- women are already active in home production (e.g. poultry, food processing, animal breeding, dairy production).
- providing women with small business administration skills.

B. Agriculture/Rural Development

1. Agricultural activity remains the single largest employment sector of the economy. Roughly 45% of the labor force is employed in agriculture. The income from this employment is generally low. It is in the rural areas (not just among those employed in agricultural activity) that we find the bulk of Egypt's poor, and most of those living in serious poverty. This applies not only to income levels but also to physical quality of life. A USAID strategy which focuses on poverty groups, employment levels and income streams will, of necessity, have to concentrate on the rural areas.

Though agriculture dominates the rural sector, it should not be thought that all employment is in agricultural activity. Iliya Harik provides the following breakdown.

Listed in order of greatest poverty (1974/75):

1. landless non-agriculturalists, self employed, but marginal jobs not connected to the land, manufacturing or livestock. Household income of LE 118.
2. agricultural wage laborers" (those with no other income) mostly casual laborers - household income LE 139.
3. near landless: manage less than one feddan of land;  
average household income is 187 LE, income from ag. production only a part of total income, other sources include livestock, poultry, bees.

4. self-employed non-agriculturalists - assumed to be craftsmen, barbers, small shopkeepers 213 LE/year.
5. non-agricultural wage laborers - 217 LE/year
6. farm operators managing 1-3 feddans - 238 LE/year
7. holders of 3-5 feddans - 291 LE/year

It is clear that the small size of holdings, low wages, and low incomes of the surrounding population are dominant factors in explaining the poverty of these groups. Directly related to the significance of land holdings and agricultural wages are productivity levels, and net income per unit of crop. For those that make their income by either selling to or servicing others, the general fact of low incomes in the surrounding population helps account for their low incomes.

2. Employment in agriculture has not increased significantly in decades.

The World Bank numbers are as follows: \*

Agricultural employment (1000's)

1947	4,086
1960	4,406
1966	4,447
1971	4,471
1974	4,212
1976	4,224

3. In the 1978-82 five year plan the GOE forecast a major increase in agricultural employment. They projected a rise from 4,233 in 1976 to 5168 in 1987. It is highly doubtful that such increases in employment will occur.

Egypt's land is relatively fixed. It is already very labor intensive. On the contrary, one might expect that there will be a gradual decrease in agricultural employment in the coming decade. A recent AID funded study on the mechanization of Egyptian agriculture indicated that over a 10 year period, mechanization would reduce total labor requirements from 772 million man years to 695 million man years (this includes increased demand coming from more intensified cropping). This represents a decline of 77 million man years or about 10%.

If the increase in agricultural employment forecast in the 5 year plan does not occur, the problem of utilizing the future expansion of the labor force is even more acute. The agricultural employment growth was expected to account for 17% of the total growth in employment. Needless to say, if there is actually a decline in agricultural employment, the problem will be even more pressing.

Because of the recent rise in wages and reports of shortages of agricultural workers in peak seasons, there may be a tendency to disregard the excess labor problem. In this regard the World Bank's comment is useful:

"It is starkly clear, however, that there is, in the aggregate, a surplus of labor available in the sector. Even if all of Egypt's 6 million feddans of farmland at full cropping intensity were put under three vegetable crops a year -- the most labor-intensive of all crops -- excess manpower would still exist. For with 4 million farmers and laborers, each able to give 300 man-days per year, a total of 1,200 million man days would be available. With 6 million feddans, all under labor-intensive vegetable production requiring 60 man-days

per feddan for each of three crops a year, no more than 1,080 million man-days would be required. This does not include women and children, and most of the crops actually planted require considerably fewer man-days per feddan." (p. 41 vol. 111)

The Bank study indicates that at peak periods demand may be up to six times greater than at slack periods. They suggest that there is a pattern of temporary labor shortages in some regions rather than an overall labor shortage throughout the year. They also note that in areas with shortages, mechanization is occurring rapidly.

REAL FARM WAGE RATES, 1966-1978

1966 = 100 for Each Index

Year	Man-day Wage Rate		Rural Consumer Price Index	Index Real Wages
	PT	Index		
1966	25.5	100	100	100
1967	25	98	102.3	95.7
1968	24	94.1	106.7	88.2
1969	25	98	114.6	85.5
1970	25.5	100	123.0	81.3
1971	25.8	101.2	124.0	81.5
1972	26.5	104.0	131.0	79.3
1973	28.5	111.7	141.2	79.0
1974	35.1	137.7	161.0	85.5
1975	46.5	182.4	180.6	101.0
1976	61.6	242.0	202.3	119.6
1977	76.0	298.0	222.0	134.0
1978	88.0	346.0 (Jan.-June)	256.2 (March)	139.0
1978	90.0	356.0 (July-Sept.)		

Source: Further Mechanization of Egyptian Agriculture, ERA 2000, April 1979

4. The preceding chart shows the pattern of agricultural daily wages since 1966. In nominal terms there has been a vast increase in wage levels. This however should not be taken too seriously. When adjusted for inflation, the pattern is quite different. Between 1966 and 1973 there was a steady decline in real wages. This pattern was reversed in 1974 and since then there has been a steady increase. Between 1966 and 1978 there has been a real increase of 39%. This corresponds to an annual rate of increase for the period of 2.7%. Furthermore, the inflation numbers used here are official numbers, and probably exaggerate the extent of the gain in real wages.

5. The wage level itself is very low. The 1978 figure of 90 piasters a day corresponds to about \$1.28 a day. Moreover, agricultural wage laborers do not find employment year round. The following table shows average annual wages both in current and in constant (1975) Egyptian pounds. These figures, which are not definitive, show that on an annual basis there has been a real decline following the major improvement in 1975. To reconcile this with the prior table showing daily wage rates, one might assume that part of the annual gain in 1975 came from an increase in the number of days worked, and that since 1975 this has slipped back towards earlier levels.

Regardless of the specific numbers associated with daily and annual wage income, it is clear that the households supported by agricultural income live in significant poverty.

Average Wages for Egyptian Agricultural Workers  
in Current and Real (1975) Egyptian pounds

	<u>wages for workers in agriculture<sup>1</sup></u>	<u>wages standardized to 1975 Egyptian pounds<sup>2</sup></u>
1959/60	30.2	53.7
1960/61	27.5	48.2
1962	32.5	57.4
1963	34.8	61.8
1964	37.9	64.7
1965	44.6	70.6
1966	50.8	74.3
1967	53.3	72.7
1968	51.7	72.4
1969	53.1	74.7
1970	53.9	71.9
1971	55.0	73.2
1972	55.4	72.8
1973	60.5	74.4
1974	70.8	76.1
1975	106.5	106.5
1976	107.0	99.4
1977 (est.)	107.6	91.2
1978 (est.)	108.0	79.9

<sup>1</sup> Data is from Chart 5 of the Egyptian Ministry of Planning Follow-up Report, 1977.

<sup>2</sup> Standardization was accomplished by using the Wholesale Price Index (line 63 for Egypt in International Financial Statistics Yearbook, 1979.

Source: Personal communication from Nazli Choucri, MIT, Feb. 1980.

6. A dominant factor in determining agricultural wages has been the relationship between agricultural employment and total rural population. The broad picture is informative.

	<sup>1</sup> <u>rural population</u>	<u>agricultural employment</u>	<sup>2</sup> total pop.
1947	13 million	4,086	19 million
1960	16 million	4,406	26 million
1966	18 million	4,447	30 million
1976	20 million	4,224	36 million

In explaining why wages have increased since since 1973, the factor most often cited is the vast increase in workers going abroad. Here as elsewhere quite different numbers are available depending on the source. But there is widespread agreement that the amount has been substantial, and consists primarily of working age males. Of course, migration from the rural areas has been going on for a long time. As the above table shows, between 1947 and 1976 the rural population grew 54%, while the total population grew 69%. Outmigration from rural areas is the basic reason for this difference. Rural fertility rates are not lower than urban rates; they are higher. Nonetheless, the outmigration since 73/74, brought about by the flow of workers abroad, has been sharp. However, the important point is that it is not expected to continue.

1. WB vol II p.40
2. WB vol. VI p.11

Indeed there are some observers who think that the total flow of workers abroad has already peaked.\* It would not be unreasonable to expect that the fundamentals of rapid population growth and stagnant agricultural employment will begin to reassert themselves in the years to come. Thus, it would be unwise to project agricultural wage trends of the past few years into the future.

This is unfortunate since considerable growth of real wages will be necessary before those families primarily dependent upon wage income will be above the absolute poverty level. Since poverty status is a function of size of household as well as income, there is no single wage level which is the minimum required. Nonetheless we can get a rough sense of the growth that would be needed. Let us assume that there are the equivalent of two income earners in the household and let us also assume that the household has six members. The World Bank puts annual 1976 agricultural wages at 107 LE. For two wage earners this is 214 LE. However, the Bank also uses for the rural sector an absolute poverty level of 80 LE per person. For a family of six, this would require an income of 480 LE. This in turn would require a real increase over the 1976 level of roughly 125%.

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\*See Birks and Sinclair, Aspects of International Laborer Migration in the Arab Near East: Implications for USAID Policy, May 1979.

## 7. Productivity

Several factors are at work. The first is growth in physical output. Land is relatively fixed, and output per feddan is high. Some observers feel that per/feddan yields in Egypt could be significantly higher. In its 1978 report the World Bank suggests that "a yield increase of 2% a year seems the maximum that can be expected for long-run sustained growth". This is based on general studies of agricultural growth which have indicated that 2% per feddan is about the maximum that developing countries have sustained since the 1940's. In the period 1950-75 Egyptian growth rates in yield per feddan were as follows:

Wheat	2.6%
Maize	2.3
Rice	1.7
Cotton	1.09

Again, this is physical yield per feddan. It does not speak to the issues of (a) prices, (b) yield per unit of labor input.

With respect to labor productivity, these yield increases have been obtained with relatively little change in labor inputs on the average. If yield per worker is to go up faster than the predicted 2% a year, it will be necessary to reduce the number of workers.

The other major factor affecting agricultural incomes are input and output prices, or net income per unit of output. The GOE has followed a pattern of controlling both input and output prices, but the balance has been against the agricultural sector. The extent differs from crop to crop and from year to year.\* But there is

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\* For cotton, which is an extreme case, the World Bank estimates that if in 1975 there were no subsidies on fertilizers and pest control and no taxes levied on output, net income per feddan would have risen 160 LE.

no doubt that improving the terms of trade for the agricultural sector would have a marked impact on rural poverty and on overall equity. Unfortunately, any substantial modification would add to the government budget deficit and would thus be difficult for the GOE to accomplish. We should not count on any major transformation in the near term.

*DICK*  
New Lands

In this section we will discuss how AID might approach the new lands issue. Our general conclusion is that we should view the new lands as a real possibility for substantial involvement provided that we are working with a small settler development model. We agree with the Mission's conclusion that priority should be given to completion of the old new lands developments, and we feel that these too should proceed along the small settler model. However, we feel that the new lands may indeed be a good investment from the point of view of our objectives. This is not to say that we should not proceed cautiously, but rather that we should proceed with the sense that there are some good opportunities in this area. Moreover, it does seem clear that the GOE will continue to invest in new lands development, and we should play an active role in shaping the nature of the development which will occur.

Given the importance of land holdings as a determinant of family income levels, and given the sharp decline in the land/population ratio in Egypt in recent history, it is not surprising that the

development of new lands in desert areas has great political attractiveness. There has been considerable interest/pressure to see AID become involved in this area. Recently, an AID funded study was completed <sup>PACIFIC ASSOCIATES/CONSULTANTS</sup> It examined the economic rationale for a variety of new lands developments. Its conclusions were largely pessimistic. In most instances, the economic value of the activity was judged insufficient to cover even the operating costs of the activity. There would be a net income loss which would necessitate some form of continued subsidization. The capital investments would never be paid off.

Because the new lands approach in theory is so attractive, it may be worthwhile to carefully examine the study, especially from the point of view we have taken: providing income streams for the poor.

Several points should be noted:

- given the wide range of values we are concerned with: equity, affecting migration, improving the lot of the very poor, political stability, and economic growth, new lands proposals should be considered within a rather sophisticated set of costs and benefits. Merely looking at traditional economic returns is not sufficient.
- from our point of view, we would want to focus on:
  1. The potential number of new farms that could be created; the number of landless or near landless agricultural families that could receive land.
  2. The size of the capital investment per family.
  3. The income streams that would be generated from activity on these lands in relationship to income streams that might otherwise be available to the target group.

4. The extent to which such activities would have to be subsidized, if at all.

If for a relatively modest one time investment, it is possible to create a large number of income streams sufficient to provide both a consumption level higher than otherwise available to the poor and to also pay the full costs of operating and maintaining the system, then the project would be quite interesting.

With this in mind let us look at some of the key features of the study. The study examined the economic and financial returns on 5 feddan plots under various systems of irrigation.

a. Financial returns.

Here, at least, the results were very encouraging. It was assumed that settlers would have 5 feddans and that over 10 years their yields would reach the target levels. These targets were assumed to be 80 percent of average Egyptian yields for the year in question. Settlers were also required to pay back with interest the cost of developing the land and of building their house. These costs amounted to 935 LE/feddan for a sprinkler system and LE 1600 for a house. The results were:

Year	100% of target yields net return	Less land & house payments	Profit
1	675LE	0	675
2	800	0	800
.			
.			
.			
10	1559	420	1139

Thus, the settlers could not only pay back the cost of the investment with interest, they could make a profit of 675LE in the first year and 1139LE in the tenth year. Given the low household incomes just discussed (most rural households have less than 300LE) this represents an astonishing financial success. In addition the settler ends up owning a valuable piece of property.

b. Economic returns

When the study shifted to economic returns it noted several important differences. First, the society was subsidizing the cost of energy involved in pumping the water. Secondly, the farm inputs were also being subsidized. Thirdly, the settler, on the financial calculation, obtained his water for free, as do all Egyptian farmers.

The most important of these factors was the difference between the economic and financial prices of energy and water. Electrical energy is sold in Egypt at .015LE/KWH to urban and at .0117LE/kwh to agricultural users. In contrast it was estimated, the economic price of power in 1978 was .04LE/kwh.

Water which was provided free in the financial analysis, was in the economic analysis given a price of .005 LE/m<sup>3</sup>.

In the economic analysis of the 5 feddan sprinkler fed farm the full costs were:

energy	84 LE/fd
water	29 LE/fd
other	
irrigation	16 LE/fd
replacement	<u>14</u> LE/fd

143 LE/fd. For five feddans this comes to 715 LE.

This is less than the value added which only comes to 610LE. Thus, we have an economic deficit; even on an operational basis there would have to be perpetual subsidization. The question that emerges however, is why is the value added for 5 feddan only 610LE. After all, the net return after 10 years was 1559LE. What accounts for the difference between value added and net returns? The major item is the economic value of the labor.

In the financial analysis we spoke of "profit". This represented the return that the settler was getting for his labor. In the economic analysis, when calculating "value added" the value of factor inputs was subtracted from the value of outputs. Thus, the value added figure is the result of subtracting the value to the society of the settler's labor (as well as other input values) from the value of the output. If the settler's labor is valued highly then value added will be low. If the settler's labor is valued at a low level, then value added will be higher.

As it turns out the study valued the settler's labor rather highly: at 900 LE. Given the existence of significant unemployment and underemployment in the agricultural sector, one could argue that the economic cost to the society of this labor is zero. That is, that no loss occurs in other areas if the settler works the land. In that case, the value added would more than double, and the investment would yield a positive return. One could also argue that some

price in between zero and 900 LE was appropriate.

Rather than approach the issue in this way, one might simply ask, "What income would the settler receive if he was not receiving any of the subsidies for water, or energy just discussed?" As we noted, these costs came to 715 LE for the five feddans. If we add these costs to the settler's bill, his net return after 10 years falls from 1,559 to 844 LE. This of course does not include payments on the house and land, but those can be considered as separate purchases that he can choose to make or not. If he doesn't make them then he will not own the house and land. All he should have to pay on an on-going basis is the interest and upkeep. This 844 LE income is three to four times as high as the present income of many rural families.

One way of approaching the decision would be to simply let the market decide. That is, create the employment opportunities, on a limited basis. Require that the settlers pay full cost for their inputs including energy and water, give them market prices for outputs, let them deal themselves with the question of housing and see if there are any takers. Given that the resulting income is high, it would be surprising if no one was interested.

Our conclusion, then, is that when viewed from the point of view of providing superior income streams to the poor, settling new lands, may be an attractive investment. The basic investment for the

irrigation system would be in the neighborhood of 5,000 LE for the 5 feddan plot. Compared to other forms of job creation this is not high. Given a potential of several million feddans of new and old new lands, settlements could provide improved income for several hundred thousand families. It would not eliminate the problem of landlessness, nor would it eliminate poverty in rural areas, nor end rural outmigration, nor provide food self-sufficiency. Nonetheless, it could make a useful contribution in dealing with all of these problems.

c. Strategy Directions

1. Targeting

The rural sector should not be viewed as all of one piece. Income levels vary considerably. Wage levels close to major cities are much higher than wage levels in more remote areas. Physical quality of life also differs considerably. Our efforts should give emphasis to the worst off areas.

Furthermore, there are major disparities with respect to the income and wealth of the rural population. Our efforts should give top priority to those living in absolute poverty.

2. Off Farm Employment

The rural population will continue to expand. There is little reason to expect that agricultural employment will expand. Thus, if there is not to be increasing underutilization of labor, there will have to be very

significant growth in off farm employment. This will require conscious efforts to locate industry in rural areas.

3. Migration

There is little likelihood that rural out-migration will stop. However, it is not expected that net migration abroad will continue to any significant extent. Thus, out-migration from rural areas will become a still more serious problem for the cities. It cannot be assumed that efforts to stem migration will be successful. Indeed, recent research indicates that many development efforts so intended often have opposite effects. Nonetheless, it remains true that the search for better employment is the dominant factor behind migration. Moreover, given rural poverty we have no option but to seek to improve conditions in rural areas. If these improvements tend to actually increase migration, the alternative is not to abandon the rural areas, but rather to get beyond that point at which you have made it easier for people to make the transition to urban centers, but have not sufficiently improved the conditions of rural life so as to give them any real incentive to stay. Thus, if we are concerned with the migration issue, within the context of improving rural life, we should be wary of limited efforts. This suggests that it might be wise to concentrate resources, to plan for a wide range of improvements in selected geographic areas.

4. Mechanization

Mechanization represents something of a dilemma. Given the already high per feddan output and the limitations on land, mechanization in Egypt will have less impact on total output than in most places. Indeed, some commentators have suggested that it will have only a negligible impact. Furthermore mechanization will have the effect of replacing or displacing significant numbers of agricultural workers, a key target group for AID. In the absence of mechanization, wages for this target group will rise more rapidly, and this should be viewed as a positive development. On the other hand, mechanization will increase labor productivity for those that remain employed in agricultural activity. The ideal situation would be the development of enough attractive non-agricultural jobs such that mechanization only served to pick up the slack if workers could not be found to do agricultural work at wages sufficient to provide for minimal needs. So long as wage levels are below this level, AID should be careful to avoid doing anything to increase the rate of mechanization.

5. Decentralization

In the effort to expand economic activity in rural areas, increased use should be made of the local governmental structures. AID should consider programming

in this area through the use of a block grant approach similar to that employed in the U.S. A variety of policy priorities and directions would be established. Localities would submit proposals that would be centrally reviewed to insure that they fall within the general guidelines, and if so, substantial resources should be provided to local government units.

6. New lands: Continued exploration of investments in the new lands and in the old new lands should be encouraged. However, this should be done only in the context of the small settler model.

C. Industrial Sector

1. As noted earlier the industrial sector provides 12% of Egypt's employment. During the 1976-87 period the five year plan (1978-82) forecast that this share would rise to 15% and that in absolute terms 1.1 million more jobs would be created. Moreover, productivity was also expected to grow at a 3.6% rate. The employment increase of 1.1 million represents 19.7% of the employment growth forecast for the period. The plan devotes 26.8% of total investment to the sector (LE 3,150 million). It divides this into LE 2412 for the public sector (77%), and LE 709 for the private sector (23%). The plan indicates that there are three priorities:

1. replacement and maintenance
2. public sector projects underway
3. new projects.

It indicates that the public sector will concentrate on replacement/maintenance and projects underway, while the private sector will concentrate on new projects. With respect to projects underway, we are told that progress is lagging, that only 13% are nearing completion, and another 14% are half finished. The past investment in these projects comes to LE 671 million and planned investment will increase by LE 1.1 billion. (1975 LE)

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We are not told how much is planned for replacement and maintenance, but using these very crude distinctions, if we figure a total of

LE 3,150 for the period, and LE 1,100 for those underway, and LE 709 for new projects, this would leave LE 1,341 for maintenance and replacement. Thus, net industrial investment in the period would come to LE 1.8 billion.

We note that the 1.1 million additional employees is for the period 1976-87, that is, for eleven years. During the period of the plan, 1978-82, employment in the industrial sector was forecast to expand from 1,342,000 in 1978 to 1,629,000 in 1982. This is an increase of roughly 300,000 jobs. In trying to relate this increase in industrial employment to net investment in the sector, we are missing a number of important pieces of information. For instance, we do not know how many of the projects will be completed by the end of the period; nor do we know what figure to use for repair and replacement in the private sector. As a working assumption we ignore the carry in of investment in projects started prior to the plan period; we assume that this will be balanced by investments made during the period but not yet producing jobs. With respect to private investment, we will arbitrarily take a figure of 10% for repair and replacement. This gives us a working figure of LE 1.7 billion for new net investment in employment yielding investments. This comes to 5666 LE per job. Since these are 1975 prices, if we assume that the inflation rate has been roughly 14% for the period, the figure is 11,300 LE/job in 1980 prices. This translates into roughly \$16,000 per industrial job.

As we have noted, agriculture cannot be expected to produce the employment growth forecast for it. We do not want to see expansion of government in the bureaucracy. With respect to the public sector industrial enterprises, we would look forward to an increase in the number of employees needed, though this need not result in new entrants because of redundancies that presently exist.

This then leaves private sector industry and the construction sector to pick up the bulk of the remaining employment. In the plan, a major piece was taken (3.4 million of the 5.7 million) by the catch all category which include many low paying marginal jobs. The sector is a catchall however, which includes tourism, financial services and other legitimate areas of expansion. As a whole, however, it is a low productivity sector, with 1976 pounds/worker identified as 838 (1975 LE).

Thus, our conclusion is that it is primarily industry, public and private that will have to be looked to as a source of jobs.

2. In the plan the industrial sector output grows from 3,710 in 1976 to 10,171 in 1987. This is growth at 10.2% annually. Employment in the sector grows at 6.4% and productivity grows at 3.6%. In the Consultative group paper, we don't have exactly the same definitions of sector boundaries. The sector is now identified as "industry and mining" rather than just industry. Output growth between 1979 and 1984 is 60%, or 9.8%/yr. Thus, the paper continues to show industrial growth in the same range as in the plan.

3. The problem from the point of view of achieving the employment targets, is not merely one of how to achieve the employment target for industrial employment given the lower overall growth rate. Rather, it is how can the industrial sector increase its employment sufficiently so that it will employ significantly more than was anticipated. And in particular, how can it do this with little prospect of higher levels of investment than those forecast in the plans. Indeed, while the plan forecast an increase in investment to 28% of GNP by 1982, the new paper speaks of 25-26% and this is at lower levels of GNP.

4. Factor prices/aggregate investment

In order to generate more employment we can seek both an increase in the aggregate level of investment for the sector, and we can seek a shift in factor prices that will skew investment choices towards labor intensive activities and technologies.

With respect to factor prices, it is clear that capital is too cheap and labor too expensive. What is not obvious, is a) what the levels for these input prices should be, and b) how they can be achieved.

a. What should the prices be for labor and capital?

Capital: The starting point is to note that the present interest rate is in the 10% range. This is significantly less than the rate of inflation. Thus, the borrower does not even repay the real cost of the loan. With negative

real rates of interest, not only will investments be skewed towards capital intensive choices, but there is no guarantee that private investment will yield a net benefit to the economy even if they are profitable for the investor.

At a minimum, the interest rate (i.e. the price of capital) should be somewhat higher than the rate of inflation. Unfortunately, we do not have an accurate understanding of what the current rate of inflation is. The recent Economic Trends Report (Airgram - A-08) says that inflation is between 25% and 30%. It also indicated that the official price indices show inflation at about 11%. The Economic Trends Report also reports that growth in the money supply is at a 30% rate. If this is correct and if we assume that the velocity of money is constant, then a 10% growth rate of real GNP would imply a 20% inflation rate. All in all it would seem reasonable for the interest rate to be no lower than 25%.

It might be thought that with higher interest rates, the total amount of investment that will occur will decline.

Several points should be made:

There may be some particular investments which are no longer profitable at this level for the interest rate. However, we should not be sorry that they are eliminated. On the contrary, since the higher interest rate reflects

the real cost of capital to the society, these eliminated investments were taking more from the economy than they were returning. They were profitable only because the investor was borrowing his funds at subsidized prices.

It is not at all inevitable that higher interest rates mean less aggregate investment. To the contrary, higher interest rates to borrowers will mean increased interest rates for savers, and thus an increase in investable funds. Given the fact that interest rates are presently below the rate of inflation, and the fact that in a free market the interest rate would rise to at least this level, it is reasonable to conclude that in Egypt, desired investment (at low interest rates) is higher than actual investment which is equal to actual savings. Furthermore, we should not overlook the importance of final prices. It is often the case that these are controlled at low levels. Insofar as final prices are allowed to rise, increasing the interest rate should not reduce financial profitability. Moreover, a rise in final prices will make it possible to raise interest rates to public sector companies without increasing their subsidization.

Labor: The price of labor should also reflect its social opportunity cost. When there is significant unemployment whether overt or disguised, labor can be obtained for a new investment, at little loss to the economy. The same is true when there is significant underemployment. In an idealized competitive market this fact is reflected in the low wages paid to labor. However, in Egypt government employment as well as minimum wage regulations, keeps wages higher than

they would otherwise be. Thus, a move to appropriate factor prices would involve lower wage levels.

Moreover, factor prices should not only reflect the direct economic contributions made by the inputs, they should also reflect externalities, that is, pricing should reflect social costs and benefits, not merely a narrow range of economic benefits. For instance, the fact that tight labor markets will help to draw women into the workforce and thus impact on population growth is a positive externality that is achieved by labor intensive production. Similarly, the fact that when there is unemployment it is generally the least educated and the most disadvantaged that suffer suggests that a concern for equity should also be reflected in factor prices. The relationship between unemployment and political instability is yet another factor. In short, there are a broad range of very important concerns that suggest that capital should be priced even higher or labor priced even lower.

b) Is it possible to realign factor prices?

In terms of achieving employment generation, there is little doubt that a significant shift in relative factor prices would be helpful. Nonetheless, one shouldn't be too optimistic about the likelihood of such changes taking place. With respect to labor, this means lowering wages. This itself conflicts with equity concerns and political stability. It is very doubtful that it would occur, and is hardly a policy that would be in line with U.S. interests.

One possibility which does exist is to subsidize the use of labor. This could be done by use of methods similar to the employment tax credit that we have in the United States. However, such devices can be costly and their effectiveness requires further study. With respect to interests rates, perhaps there is more possibility of adjustment, though it is doubtful that rates in the 25% to 30% range could be obtained. One factor is religious opposition to

high interest rates, but perhaps this could be overcome by talking about repaying the real value of what was borrowed, and of protecting people's savings against inflation. The spread between what is paid savers and what is charged to borrowers could be cast in terms of specific fees for the service of the financial intermediary. It would of course, be an enormous accomplishment to raise interest rates to the rate of inflation. AID should develop a clearer sense of what it wants to accomplish in this area, what the costs and benefits would be, and what approaches might exist that would overcome religious opposition to high rates.

Other than actual factor prices, investments can be chosen on the basis of shadow prices. Thus, for AID supported investments, and for GOE initiated investments, it would be possible to test economic viability based on factor prices at appropriate levels. If capital is priced sufficiently high and labor sufficiently low, this would permit capital intensive investments only in areas which had very high rates of return (in relation to market prices). An obvious example would be oil production.

However, because of all the uncertainties which plague cost-benefit calculations, and because investment decisions and technology choices are often made on other grounds with the cost-benefit study serving as justification/rationalizations, this is no substitute for actually having factor prices at appropriate levels.

In all this, it is important that we not lose sight of the fact that AID is itself an investor of enormous magnitude. For instance, if the entire \$750 million proposed for 1982 were invested in employment generating activities at an average of \$2,000 per job, this would result in 375,000 jobs. That is more employment than was added to the entire Egyptian economy in 1978. Viewed from another perspective, we identified net industrial investment at roughly LE 1.8 billion (1975 prices) for the period 1978-82. For that same period, total U.S. economic aid to Egypt will be at least as great. The point is obvious, our resources are of a scale, just by themselves, to have a significant impact on Egypt's employment situation. We have not used our resources in this way in the past, but the possibility exists.

5. The Public Sector

Because most of the investment which does occur, occurs within the public sector, AID should not turn its back on GOE investment choices. This is, of course, not to say that we should or should not, make major investments in the public sector. Rather the point is that most of the investment which is going to occur, will be in the public sector, and the battle for labor intensive investments will most probably be won or lost in that sector, and we should try to affect those decisions.

The public sector (1974) produced 75% of industrial output; in 1976 it produced 85% of capital goods, as opposed to the 15% produced in the private sector. The private sector in contrast produced 79% of leather products and woodworking. This one category alone constituted 26% of private sector industrial output. More generally, 80% of private sector production is for consumer goods, while only 32% of public sector production is for consumer goods. The public sector enterprises are larger and significantly more capital intensive. In 1974, there were only 10 private sector firms with more than 500 employees. The average private sector firm contains only 5.3 employees. The vast majority of these firms 97% are in the artisan category. In 1974 of gross fixed investment, the private sector accounted only for 4%. This was down from levels in the 10% range, and since 1974 there has been an increase, with 15% of total gross fixed investment going to the private sector in 1979 and 85% to the public sector. The overview is:

	<u>Public</u>	<u>Private</u>	
% of indust. employ:	46	54	(1974)
% of indust. prod.	69	31	(1979)
% of investment	85	15	(1979)

Of course, it should not be thought from this that there is something inherently capital intensive about public production, or labor intensive about private production. Indeed, it is the public sector which has the redundant worker problems, making it appear more labor intensive than it actually is. The main reason for the differences in labor intensity, is the fact that it was the large capital intensive firms which were nationalized; the vast set of private, small labor intensive shops with 4 or 5 employees, which account for 80% of private sector employment were not nationalized.

Our point, however, is that the public sector has, and will continue to take the lion's share of investment, and it is there that major changes in labor intensity should be sought. USAID's role in bringing this about might involve some direct investment, but most important would be changing the perceptions of Egyptian decision makers with respect to their options and with respect to the severity of the employment problem. Along these lines we should:

1. Develop a presentation on the need for employment which is similar to the rapid presentation on population problems.
2. Contact for a study of labor intensive industries and technology choices that would at the same time correspond to Egypt's comparative advantage. Studies of this sort have been done for other countries and have proved useful.
3. Attempt to establish an institutional mechanism, perhaps in the ministry of planning, which would be charged with this problem of steering Egypt's public sector investment choices towards more intensive avenues.
- 4.. Make sure that all feasibility studies that we finance whether for public sector or private sector investment pay special

emphasis to technology choices and industry/product choices which will expand employment opportunities.

## 6. The Private Sector

With respect to the private sector, there is a problem that remains unsolved, the relation of private sector expansion to our equity and stability concerns. In short, how can we promote private sector development without at the same time heightening both the perception and the reality of economic disparities? The problem for AID is brought out forcefully in a consideration of some of our efforts to date to stimulate private sector development. In the Private Investment Encouragement Fund, AID provided both loan and equity capital, which was routed to private sector entrepreneurs. In this project we sought to stimulate investment in part by providing capital on exceedingly favorable terms. Because we would loan foreign exchange and accept repayment years later in Egyptian pounds (based on the present exchange rate) we in fact provided for a major subsidization of capital. Beyond this, we arranged for the resale to the private sector of equity participation without any specification of the terms for the sale.

And finally, perhaps because of a desire to get something going quickly and the relative ease of dealing with large firms, we set a minimum size of several million dollars for loans. This in fact ruled out all but perhaps a few dozen of the 100,000 plus private sector firms (a firm seeking to double its plant and equipment and having 500 employees and <sup>\$</sup>2,000 of fixed capital per employee, would only need a loan of \$1,000,000.) In 1974, there were

only 10 firms with more than 500 employees. \$3 million for plant and equipment would suffice to double a 500 person establishment using \$6,000 of capital per worker. Thus, we subsidized the expansion of a small group of the largest private sector firms in Egypt. Moreover, we did so with little emphasis to labor intensive production. In short, our efforts were rather pure "trickle down" and will result in the "rich getting richer".

We have coming on line a project that will deal with the smaller size firms, but once again it is unlikely that we will be successful in reaching down to the 97% of the private sector firms that employ less than 10 persons. Thus, once again, by Egyptian standards we will be aiding the larger and richer establishments.

It should not be thought that the concern with the equity impacts of private sector expansion is merely the reflection of a "New Directions" development philosophy, or a concern that arises only out of a fear for political instability. Rather, it should be seen as a problem at the heart of the current Egyptian economic structure. Within AID there are many who would like to see a major expansion of the scope of the private sector. This includes the return to private hands of many of the companies that were nationalized during the 1950's and 1960's. Many Egyptians recognize the inefficiencies and inadequacies of the public enterprises. However, so long as the choice is one between public ownership and rather traditional concepts of private ownership, the equity concerns which underlay the nationalizations will prevent the kind of private sector expansion

that is desired. No Egyptian leader will want to be seen as undoing the revolution. And here too, we should not want any Egyptian government to embark on a course of action that would leave it open to widespread popular opposition. (A recent survey indicates that 60% of the urban population opposed the "open door policy", primarily on the grounds that it benefitted only a small group and was harmful to the "masses")\*

In searching for mechanisms to achieve equity in the context of private sector expansion, we should remember that in our own private sector there is a significant divorce of management from ownership. It is generally the case that managers of our major corporations have little or no equity interest in the corporations. Thus, the efficiencies (if they be so) of private sector activity do not require that equity be concentrated in the hands of the few that manage the company. With this in mind, it should be possible to widen the ownership base of Egyptian concerns. Egypt already has some ideological commitment to the idea of worker participation and ideas along these lines should be pursued vigorously. What would be desirable would be a model of private sector development which was distinctly Egyptian, just as Yugoslavia's socialism is distinctly Yugoslav with its emphasis on worker participation, and direction. It is worth remembering that within the framework of capitalist economies, the United States occupies an extreme position with respect to the isolation of workers from some form of participation in management and ownership. In the Scandanavian

\*Blackton memo of Sept 5, 1979

countries and in West Germany there is considerable movement towards forms of organization that would break down the sharp distinctions between worker and management and between labor and capital. Of note are recent studies of productivity which indicate that companies which have forms of co-determination and co-ownership have rates of growth of productivity significantly above those of firms organized under more traditional lines.

Moreover, if a model of private ownership could be developed which would nonetheless have widespread participation it might prove to be an alternative to the present mode of operation of the public sector. Thus, we might think in terms of convergence, an effort to seek greater managerial autonomy in the public sector which continues to maintain its ownership by the state (supposedly as a proxy for the population as a whole) and on the other hand a movement towards wider ownership of private units which are presently autonomous. Thus, we could build into our investment stimulation various equity widening devices. One idea is the ESOP, the employee stock ownership plan, of the sort in use in the United States. A second would be to consider some mechanism whereby U.S. aid would be translated into mini grants, to individuals for equity participation in Egyptian industry. (With the state as proxy, this is presumably what we do when grants or concessional loans are provided to the public sector activities.) The development of workable mechanisms for doing this is a formidable challenge, but one with potentially very high pay-offs.

D. Education and Training

## METHODOLOGY USED IN CALCULATING EGYPTIAN LABOR FORCE ESTIMATES

The purpose of these calculations was not so much to generate one specific set of AID/W labor force projections but rather to develop a sense of the ball park in order to determine whether it was reasonable to accept the GOE projections.

1. We started with 1976 population data by sex and age group.

Source: Egypt: The Effects of Population Factors on Social and Economic Development, Resources for the Awareness of Population Impacts on Development (RAPID), The Futures Group, 1979.

2. With the aid of age specific death rates, we aged the population to arrive at estimates for the years 1981, 1986, and 1991.

Source: Population Increase in the UAR and Its Deterrents for Development, Table 1.4: Death Rates for Different Age Groups 1947-1960; Central Agency for Public Mobilization and Statistics, Cairo, 1966.

We reduced the 1960 death rates by sex and age group by 25% to reflect the fact that in the aggregate the death rate declined from 16.9 in 1960 to 10.6 in 1978.

When aging the population group 0-4 years of age from 1976 to 1981, we used the death rates for the 0-4 age group for one year and the death rates for the 5-9 age group for four years to reflect the fact that in the second, third, fourth and fifth years of this age group there were no infants and progressively fewer young children. We recognize that in doing this we were probably underestimating the losses from the 0-4 age group but, on the other hand, we thought that this was counterbalanced by the fact that:

- (a) in aging the group 5-9 years of age we used the death rate for the 5-9 group for 5 years, even though members of this group were moving progressively into the 10-14 age group for which the death rate was lower;
- (b) for all age groups, all of the losses for deaths over 5 years were calculated against the same base figure for population rather than against a population base that was declining year by year.

3. We then applied 1975 labor force participation rates by sex and age group to our estimated working-age population for the years 1976, 1981, 1986 and 1991.

Source: 1978 Yearbook of Labour Statistics, International Labor Office, Geneva, 1978.

Using 1975 participation rates tends to bias downward our estimates of the labor force in future years because the participation rates have been rising over time.

4. Our labor force estimates also tend to be low because our working-age population includes the 15-65 age group rather than the group 12-65 years of age.
5. We arrived at the following figures for the Egyptian labor force:

<u>Year</u>	<u>Egyptian Labor Force (thousands)</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>
1976	8260	601	8861
1981	9598	700	10298
1986	11111	815	11926
1991	12856	942	13798

  

<u>Period</u>	<u>Compound Annual Growth Rates - %</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>
1976-1991	2.9	2.9	2.9

6. We then recalculated the labor force figures to take account of a gradual rise in female participation rates. We assumed that participation would double by 1991 (from the rates we used in calculating the 1976 labor force). We then calculated the compound annual growth rates implied by this change..

<u>Year</u>	<u>Egyptian Labor Force (thousands)</u> <u>(Female Participation Rates Doubled)</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>
1976	8260	601	8861
1991	12856	1886	14742

  

<u>Period</u>	<u>Compound Annual Growth Rates - %</u>		
	<u>Males</u>	<u>Females</u>	<u>Total</u>
1976-1991	2.9	7.8	3.4

EGYPT  
POPULATION/LABOR FORCE  
1976

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Population		Working Age Group				Labor Force					Total Labor Force
Age	(000s)	Age	(0000s)	Male	Female	Age	Male Labor Force	% Econ Active	Female (000s)	% Labor Force	
0-4	6138	15-19	3754	1877	1877	15-19	902	48.1	79	4.2	
5-9	5079	20-24	3202	1601	1601	20-24	1050	65.6	189	11.8	
10-14	4443	25-29	2760	1380	1380	25-29	1296	93.9	145	10.5	
15-19	3754	30-34	2355	1178	1178						
20-24	3202	35-39	1987	994	994	30-49	3674	98.8	156	4.2	
25-29	2760	40-44	1693	847	846						
30-34	2355	45-49	1399	700	700						
35-39	1987	50-54	1178	589	589	50-59	1040	97.4	26	2.4	
40-44	1693	55-59	957	479	479						
45-49	1399	60-64	736	368	368	60-64	297	80.7	6	1.6	
50-54	1178										
55-59	957										
60-64	736										
65-69	552										
70-74	348										
75+	278										
<b>Total</b>	<b>36904</b>		<b>20021</b>	<b>10011</b>	<b>10011</b>		<b>2260</b>		<b>601</b>		<b>2261</b>

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EGYPT  
PROJECTED WORKING AGE GROUPS  
Adjusted for Death Rates for Different Age Groups

Age Group	Population 1976 (000)			Population 1981 (000)				Population 1986 (000)				Population 1991(000)			
	Total	Male	Female	Age Group	Total	Male	Female	Age Group	Total	Male	Female	Age Group	Total	Male	Female
0-4	6183	3092	3092	5-9	5858	2927	2931	10-14	2899	2910	15-19	2876	2894		
5-9	5079	2540	2540	10-14	5038	2516	2522	15-19	2496	2508	20-24	2472	2492		
10-14	4443	2222	2222	15-19	4414	2204	2210	20-24	2183	2196	24-29	2159	2179		
15-19	3754	1877	1877	20-24	3724	1859	1865	25-29	1838	1851	30-34	1818	1837		
20-24	3202	1601	1601	25-29	3172	1583	1589	30-39	1566	1577	35-39	1540	1557		
25-29	2760	1380	1380	30-34	2734	1364	1370	35-39	1341	1353	40-44	1319	1336		
30-34	2355	1178	1178	35-39	2322	1159	1163	40-44	1140	1148	45-49	1107	1128		
35-39	1987	994	994	40-44	1960	978	982	45-49	950	965	50-54	922	948		
40-44	1693	847	847	45-49	1655	822	833	50-54	798	819	55-59	748	793		
45-49	1399	700	700	50-54	1368	680	688	55-59	637	666	60-64	597	645		
50-54	1178	589	589	55-59	1122	552	570	60-64	517	552					
55-59	957	479	479	60-64	913	449	464								
60-64	736	368	368	65-69	666	324	342								
65-69	552	276	276	70-74	499	243	256								
70-74	348	174	174	75+	210	107	103								
75+	278	139	159		168	86	82								

36904

Age Group	Death Rates 1960		Est. Death Rates (Reduced by 25%)	
	Male	Female	Male	Female
0-4	61.1	62.1	45.8	46.5
5-9	2.5	1.9	1.9	1.4
10-14	2.2	1.5	1.6	1.1
15-19	2.5	1.8	1.7	1.3
20-29	3.0	2.1	2.2	1.5
30-39	4.4	3.3	3.3	2.5
40-45	7.8	4.5	5.8	3.4
50-59	16.5	8.4	12.4	6.3
60-69	32.0	19.1	24.0	14.3
70+	102.4	109.5	76.8	82.1

EGYPT  
 PROJECTED LABOR FORCE  
 ADJUSTED FOR AGE - SPECIFIC DEATH RATES  
 1981

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Age Group	Working Age Group			Male Labor	% Econ Act	% Female Labor Force			Total Labor Force	
	Total	Male	Female			(000)	(000)	%		
15-19		2204	2210	1060	48.1	93	4.2	186	8.4	1) 10298
20-24		1859	1865	1219	65.6	220	11.8	440	23.6	
25-29		1583	1589	1486	93.9	167	10.5	334	21.0	2) 10998
30-49		4323	4348	4271	98.8	183	4.2	365	8.4	
50-59		1232	1258	1200	97.4	30	2.4	60	4.8	
60-64		449	464	362	80.7	7	1.6	15	3.2	
				<u>9598</u>		<u>700</u>		<u>1400</u>		
<u>1986</u>										
15-19		2496	2508	1201		105		211		1) 11926
20-24		2183	2196	1432		259		518		
25-29		1838	1851	1726		194		389		2) 12741
30-49		4997	5043	4937		212		424		
50-59		1435	1485	1398		36		71		
60-64		517	552	417		9		18		
				<u>11111</u>		<u>815</u>		<u>1631</u>		
<u>1991</u>										
15-19		2876	2874	1383		121		243		1) 13798
20-24		2472	2492	1622		294		588		
25-29		2159	2179	2027		229		458		2) 14742
30-49		5784	5858	5715		246		492		
50-59		1670	1742	1627		42		84		
60-64		597	645	482		10		21		
				<u>12856</u>		<u>942</u>		<u>1886</u>		