

Some Issues in Middle Eastern International Migration

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Recent Middle Eastern migration has created new challenges to both labour-importing and labour-exporting countries. A main concern of the labour-importing countries is demo-economic in nature: how to achieve a desired rate of economic growth without creating an adverse balance between expatriate and national populations. The first part of the paper attempts to provide a conceptual frame for such policy analysis illustrated by the case of Kuwait. The second part examines some negative externalities of recent farmers' emigration for Egyptian agricultural productivity.

In this paper, two controversial issues related to the consequences of Middle Eastern international migration are examined. The first has to do with its effect on the development policies of the labour-importing countries with a special reference to the case of Kuwait. The second relates to its effect on the growth potential of the labour-exporting countries with special reference to recent development in Egypt's agricultural productivity. But first a brief note on the analytical nature of international labour migration in the Middle East and on the public view of emigrants as export commodities.

THE DIMENSIONS OF MIDDLE EASTERN INTERNATIONAL MIGRATION

In contrast to other sources of population change, international migration has certain features which make it unique in policy terms. policies dealing with the flow or stock of migrants require policy decisions by at least two governments. Attempts by any one government to influence its own nationals to emigrate or to attract

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immigrants will be constrained by national and international legal obligations [12], as well as by policies of other governments regarding their own interest; international migration flows being more responsive than either fertility or mortality to short-run changes in the socio-economic environment, their effect on the growth and structure of the labour force is more immediate. Furthermore, the process itself is not easily predictable. Migration flows are seldom unidirectional but tend to generate a sizable flow of return migration induced by the initial flow of out-migration. Once started, migration develops its own momentum through information networks and the social and financial supports established and provided by earlier migrating friends and relatives. The momentum may persist for short periods even in the face of changed economic conditions since the factors that produce it effectively lower the costs of relocation. However, the determinants and consequences of international migration will vary among countries, depending on their respective labour-market conditions and the various policies they pursue. Countries, however, may be grouped into three major categories, listed below, with the reasonable assumption that economic objectives and policy measures regarding the management of international migration will vary accordingly:

- Labour-importing countries – mainly capital-surplus, oil-exporting countries;
- Labour-exporting countries; and
- Labour-exporting countries with a sizable inflow of foreign labour, e.g. Jordan and Yemen.

These categories are well illustrated by the countries of the Middle East.

Since the early 1970s, international labour movement has been playing a pivotal role in the economic-growth experience of the oil-exporting countries of the Middle East. Such movement has generated socio-economic repercussions that go far beyond the immediate boundaries of that region. In 1975, the number of migrant labourers working in 10 oil-exporting countries in the Middle East was 1.884 million (Table 1). This is a sizable labour flow in both absolute and relative terms, i.e. relative to the population size of the labour-importing countries.¹ The projected total manpower requirement in those countries was estimated to increase by about 40 percent and the demand for expatriate labour by 54 percent (Table 2). As is evident from Table 2, the projected demand cuts across all skilled and unskilled categories. This persistent high level of demand for expatriate labour will have important socio-economic and demographic implications to both the labour-importing and the labour-exporting countries. From the labour-importing countries' point

¹For a recent assessment of the situation in the Arab region, see Birks and Sinclair [4], Sirageldin and Socknat [25] and Sirageldin *et al.* [27]. For a more general statement, see King [16; 17].

Table 1
Immigrant Labour in the Middle East and North Africa by Source and Destination, 1975

Source	Destination										Total
	Algeria	Bahrain ²	Iran	Iraq	Kuwait	Libya ²	Oman	Qatar	Saudi Arabia	United Arab Emirates	
Egypt	1.0	1.2	—	2.3	37.6	175.0	5.3	2.7	95.0	12.7	332.8
Jordan	.4	.8	—	3.1	47.7	13.0	2.6	1.7	175.0	6.4	250.7
Morocco	.3	—	—	—	.1	1.8	—	—	—	—	2.2
Oman	—	1.5	—	—	3.7	—	—	1.5	17.5	7.0	31.2
Somalia	—	—	—	—	.2	—	.1	—	5.0	1.6	6.9
Sudan	—	.5	—	—	.9	7.0	.2	.5	35.0	1.8	45.9
Syria	.4	.1	—	.2	16.5	15.0	1.5	.4	15.0	3.4	52.5
Tunisia	.2	—	—	—	—	29.0	—	—	—	—	29.2
Yemen Arab Rep.	—	.9	—	—	2.8	—	1.0	1.6	280.4	3.5	290.2
P.D.R. Yemen	—	.4	—	—	8.7	—	—	1.0	55.0	1.5	66.6
Europe and North America	6.1	4.4	35.0	.7	2.0	28.0	3.6	9.2	15.0	9.1	113.1
India	.3	9.0	4.4	.3	21.5	2.0	24.8	19.8	6.0	73.0	161.1
Pakistan	.1	6.7	2.4	.9	11.0	5.0	20.2	14.5	25.0	94.0	179.8
Others	1.0	3.9	140.2 ³	.9	58.7	19.2	7.9	8.9	49.5	31.8	322.0
Total	9.8	29.4	182.0	8.4	211.4	295.0	67.2	61.8	773.4	245.8	1,884.2

Continued—

Table 1 - (Continued)

Source	Destination										Total
	Algeria	Bahrain ²	Iran	Iraq	Kuwait	Libya ²	Oman	Qatar	Saudi Arabia	United Arab Emirates	
% of Total Employment	.2	38	2	1	71	33	39	83	39	89	

Sources: For Algeria: Ministry of Labour.

For Kuwait: The 1975 census.

For Libya: Ministry of Planning and Scientific Research.

For Saudi Arabia: J. S. Birks and C. A. Sinclair, *International Migration Project, Country Case Study: Saudi Arabia*. University of Durham, England, 1978.

For Bahrain: Estimates based on 1971 census and 1976 arrival/departure statistics.

For Iraq: Estimates based on "Foreigners in Iraq by Sex and Nationality, 1974" statistics.

For Iran: Estimates of the Ministry of Labour.

For Oman, Qatar, U.A.E.: Author's estimates derived from available information on population, employment, work permit and other related published data.

See also Ecevit [13].

¹Jordanians and Palestinians.

²End of 1976.

³Includes 120,000 Afghan workers and others from the Gulf States.

(-) Nil or insignificant.

Table 2
Eight Arab Labour-Importing Countries:¹ Manpower Requirements, by Occupation, 1975, 1980, and 1985

Occupations	1975		1980		1985	
		Percent		Percent		Percent
Professional and technical						
Total manpower requirements	110,200	100.0	202,600	100.0	297,300	100.0
Available supply of nationals	42,300	38.4	57,200	28.2	82,700	27.8
Expatriates required	67,900	61.6	145,400	71.8	214,600	72.2
Other professional						
Total manpower requirements	250,100	100.0	399,600	100.0	563,400	100.0
Available supply of nationals	116,100	46.4	143,700	36.0	184,600	32.8
Expatriates required	134,000	53.6	255,900	64.0	378,800	67.2
Technician						
Total manpower requirements	190,300	100.0	334,300	100.0	476,600	100.0
Available supply of nationals	113,500	59.6	123,200	36.9	151,200	31.7
Expatriates required	76,800	40.4	211,100	63.1	325,400	68.3
Other subprofessional						
Total manpower requirements	249,700	100.0	361,500	100.0	490,200	100.0
Available supply of nationals	194,300	77.8	237,500	65.7	324,200	66.1
Expatriates required	55,400	22.2	124,000	34.3	166,000	33.9
Skilled: office and manual						
Total manpower requirements	923,500	100.0	1,353,100	100.0	1,750,100	100.0
Available supply of nationals	497,700	53.9	530,400	39.2	638,900	36.5
Expatriates required	425,800	46.1	822,700	60.8	1,111,200	63.5
Semiskilled: office and manual						
Total manpower requirements	1,752,100	100.0	2,077,700	100.0	2,685,800	100.0
Available supply of nationals	1,280,500	73.1	1,470,800	70.8	1,816,100	67.6
Expatriates required	471,600	26.9	606,900	29.2	869,800	32.4
Unskilled						
Total manpower requirements	2,735,000	100.0	3,523,200	100.0	4,042,900	100.0
Available supply of nationals	2,305,300	84.3	3,031,200	86.0	3,492,600	86.4
Expatriates required	429,700	15.7	492,000	14.0	550,300	13.6
Total manpower requirements	6,210,900	100.0	8,252,000	100.0	10,306,400	100.0
Available supply of nationals	4,549,700	73.3	5,594,000	67.8	6,690,300	64.9
Expatriates required	1,661,200	26.7	2,658,000	32.2	3,616,100	35.1

Source: [25] based on *Interim Report: Assessment of Migration Situation in 1975 and Preliminary Projections of Labor-Importing Country Manpower Requirements to 1985*, World Bank (1979).

¹Algeria, Bahrain, Kuwait, Libya, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

of view, their demand for labour seems to have been based primarily on economic grounds, i.e. to meet some economic growth targets. Demographic concerns were given secondary policy considerations. Similarly, the response of the labour-exporting countries was mainly based on assessing the economic consequences of the expected flows, e.g. the effects of workers' remittances on foreign-exchange constraints. An implied view for the labour-exporting countries is that emigration is an export industry that needs encouragement and even development. This seems to present a naive policy perspective that could have negative consequences to those countries' development potentials.

PUZZLES IN A LABOUR-IMPORTING COUNTRY: THE CASE OF KUWAIT

In many development plans of the Arab labour-importing, oil-exporting countries, a desired ratio of expatriates to nationals is usually assumed.² From a policy point of view, the maintenance of such ratio becomes an objective in itself. But the determinants or implications of such "given" ratios are neither adequately specified nor derived in the plans methodology. For example, it is obvious that changing or maintaining a given population ratio implies the manipulation of one or more of the three basic components of population dynamics: net external migration, fertility, and/or mortality. An analysis of these alternative means is often missing. A more fundamental deficiency is the lack of clarity of the stated objective. There are alternative meanings to the term "desired parity". For example, parity could be sought in terms of three alternative formulations: (i) the proportion of foreigners in the total population, (ii) the proportion of foreigners in the labour force, or (iii) the proportion of the total value added by expatriate labour. Each formulation implies a different socio-economic consequence and calls for a different policy strategy.

Building on an earlier analysis [22, pp. 167–171], it is possible to illustrate the relationship between these alternative formulations with the help of some simple identities. Thus, the following relations could serve as a basis for the discussion:

$$R_1 = R_2 \times (R_3 \div R_4) \quad \dots \quad \dots \quad \dots \quad (1)$$

$$R_5 = (R_6 \times R_2) \quad \dots \quad \dots \quad \dots \quad (2)$$

²For an illustration of the application of such models to the case of the Arab oil-exporting countries, see [20].

where³

- R_1 = the ratio of national population to the expatriate population;⁴
- R_2 = the ratio of national labour to the expatriate labour;
- R_3 = the proportion of the expatriate population who are in the labour force: interpretable as a crude participation rate for expatriates;
- R_4 = the proportion of the national population who are in the labour force: interpretable as a crude participation rate for nationals;
- R_5 = the ratio of the total value added by national labour to that added by expatriate labour; and
- R_6 = the ratio of the value added per national worker (i.e. average productivity of national workers) to that added by expatriate worker.

The first relation, which may be labelled the socio-demographic linkage, simply states that the population ratio (R_1) is equal to the labour ratio (R_2) weighted by the relative participation rates (R_3/R_4). The second relation, which may be labelled as the economic linkage, indicates that the value-added ratio (R_5) is equal to the labour productivity ratio (R_6) weighted by the labour ratio (R_2). Although these two relations are purely definitional, they illustrate some important policy implications.

Equation 1 indicates that a given labour ratio can be compatible with various combinations of population ratios depending on the values of the labour-participation rates of nationals and expatriates. These relations are illustrated in Table 3. If the crude participation rate of expatriates (R_3) is equal to 0.4 and that of nationals (R_4) is equal to 0.2 (Panel (a) of Table 3), then the population ratio will equal unity if the labour ratio R_2 (nationals to expatriates) is equal to 0.50. Indeed, other things being equal, the population ratio will double ($R_1=2$) if the labour ratio reaches unity ($R_2=1$). If, on the other hand, expatriates bring with them many

³These are weighted ratios. They should be expressed in terms of sectors and years, and, for expatriates, in terms of origin. Thus, R_1 may be calculated as follows:

$$R_1 = \frac{\sum_i w_i r_{1ij}}{\sum_i w_i (PN_{ij}) \div \sum_i w_i (PE_{ij}) \sum_i w_i (PN/PE)_{ij}}$$

where PN_{ij} = the total national population, i.e. workers and their dependants in the i th sector, in the j th year;
 PE_{ij} = the total expatriate population in the i th sector, in the j th year; and
 w_i = weights indicating the relative size of the i th sector.

⁴"Nationals" refers to residents who already possess the nationality of the labour-importing country.

dependants,⁵ their crude participation rate (R_4) will depress the population ratio if not compensated by an increase in the labour ratio (R_2), as illustrated in Panel (b) of Table 3.

Table 3
Population Ratio (R_1) for given Labour Ratios (R_2) and
Crude Participation Rates (R_3 & R_4)

Ratio of Kuwaiti* to non-Kuwaiti Labour (R_2)	Non-Kuwaiti Crude Participation Rate (R_3) is equal to			
	0.40	0.35	0.30	0.25
(a) If Kuwaiti Crude Participation Rate (R_4) = 0.20				
0.25	0.50	0.44	0.38	0.31
0.50	1.00	[0.88]	0.75	0.63
0.75	1.50	1.31	[1.13]	0.94
1.00	2.00	1.75	1.50	1.25
(b) If Kuwaiti Crude Participation Rate (R_4) = 0.30				
0.25	0.33	0.29	0.25	0.21
0.50	0.67	0.58	0.50	0.42
0.75	0.98	0.87	0.75	0.63
1.00	1.33	1.16	1.00	0.83

*Indeed the ratio of National to Expatriate labour (R_2) could be easily converted to the proportion of Nationals in the labour force. Thus, let the latter = (R'_2). Then, $R'_2 = R_2/(1+R_2)$. For example, if $R_2 = 0.25$, the value of $R'_2 = 0.20$.

Indeed, the ratio of national to expatriate labour (R_2) is a weighted average across age and educational labour groups. Since age and education are basic determinants of family size, a given value of R_2 may be consistent with different values of (R_3), depending on the occupational and educational mix of the expatriate labour. For example, for the same value of R_2 , say equals 0.25 (in panel (a) of Table 3), the value of R_1 will be more favourable (i.e. higher) if the expatriate labour is relatively educated or old, since they will more likely have a higher crude participation rate (R_3). The education mix of expatriate labour should have a significant effect on productivity and output. Accordingly, a main concern should be in the relation between the labour ratio (R_2) and the relative contribution to total output (R_5).

⁵It is assumed that no change occurs in the unemployment status of the expatriate population.

Table 4, based on equation 2 above, presents the relative contribution of national labour and expatriate labour to the total value added (R_5) for given combinations of labour ratios (R_2) and of relative labour productivity (R_6).

Table 4
The Value-Added Ratio (R_5) for given Labour Ratios (R_2) and
Relative Productivity (R_6)

Ratio of Kuwaiti to non-Kuwaiti Labour (R_2)	Relative Labour Productivity (R_6) is equal to			
	0.50	0.60	0.70	0.80
0.25	0.13	0.15	0.18	0.20
0.50	0.25	0.30	0.35	0.40
0.75	0.38	0.45	0.53	0.60
1.00	0.50	0.60	0.70	0.80

The message of Table 4, although self-evident, is illustrative. It states that, other things being the same, the great reliance on foreign critical skills, with relatively high productivity – e.g. an R_6 equals 0.50 – will reduce the relative contribution of local labour to the total output. Thus, a policy objective that attempts to maintain relative output (R_5) at 0.50 would require a labour ratio (R_2) that equals unity, if relative productivity (R_6) is equal to 0.50. But, as Table 3 illustrates, a labour ratio (R_2) that is equal to unity could imply different values for a population ratio (R_1) depending on the values of the crude participation rates, (R_3) and (R_4). Thus, the present accounting framework could serve as a base for checking the internal consistency of a given policy design.

The previous discussion provided a general *accounting* framework that links some international migration policy objectives (R_1 or R_2) with demographic and economic factors and options. The following example is mainly illustrative of the use of such framework for Kuwait. In a recent study of forecasting sectoral employment in Kuwait, some estimates of labour ratios, population ratios and crude labour-participation rates were provided [31]. In that study, forecasts of sectoral employment were performed with two independent methodologies: (a) the input-output method (I-0), and (b) the sector shares method (SSM). Both forecasts produced very similar results. Table 5 presents some of the findings for low, medium and high growth scenarios based on the findings of the input-output method (I-0).

In this simulation exercise, it is assumed that the crude participation rate (R_4) of the Kuwaiti labour will increase by about 13 percent during the decade of the Eighties – from 0.196 to 0.222 – while that of the non-Kuwaiti labour (R_3) will

decline by about 18 percent during the same period – from 0.373 in 1980 to 0.305 in 1990. Given these assumptions, it is expected that the population ratio (R_1) will exceed unity by 1990 in the low- or medium-growth scenarios and reach 0.969 in the

Table 5
Estimates of Population Ratios (R_1) and Labour Ratios (R_2),
given Crude Participation Rates (R_3 , R_4) for
Different Growth Scenarios

Growth Scenarios Based on (I-0)*	R_1	R_2	R_3	R_4
1980 Estimates				
Low-Growth Scenario	0.883	0.464	0.373	0.196
Medium-Growth Scenario	0.880	0.462	0.373	0.196
High-Growth Scenario	0.873	0.458	0.373	0.196
1990 Estimates				
Low-Growth Scenario	1.058	0.773	0.305	0.222
Medium-Growth Scenario	1.012	0.739	0.305	0.222
High-Growth Scenario	0.969	0.709	0.305	0.222

Source: Based on [31].

*The Input-Output model (I-0) may be summarized in terms of the following three-equation system:

$$(I-A)X = F \quad \dots \quad (1)$$

$$V = BX \quad \dots \quad (2)$$

$$F = HR \quad \dots \quad (3)$$

where

A = the matrix of technical coefficients;

X = a vector of sectoral gross output;

F = the final demand vector;

V = a vector of sectoral value added (i.e. (V_j) for sector j), defined as the difference between gross output of sector j (X_j) and intermediate inputs delivered to sector j ($\sum a_{ij} X_j$);

B = diagonal matrix with $(1 - \sum a_{ij})$ elements on the diagonal and zeroes elsewhere; and

R = a vector representing the breakdown of GDP by its basic components.

By combining the three-equation system and rearranging, the value-added vector (V) is determined as follows:

$$V = B(I-A)^{-1}HR \quad \dots \quad (4)$$

Accordingly, sectoral employment (L) is calculated with the following equation:

$$L = V/Y \quad \dots \quad (5)$$

where

Y = a sectoral productivity vector.

high-growth scenario. The labour ratio (R_2) would increase by about 40 percent in the low-growth scenario and by 35 percent in the high-growth scenario during the decade. These estimates are consistent with the bracketed values in Panel (a) of Table 3. That table, however, indicates what alternative values for R_1 and R_2 could be obtained if R_3 and/or R_4 were assumed to change differently. The projected values of labour ratio (R_2) could also indicate possible ranges for relative value added (R_5). As Table 4 illustrates, an $R_2 = 0.50$ indicates a range of relative output between 0.25 and 0.40 depending on the value of relative labour productivity (R_6). For an increased value of R_2 , projected in the range of 0.75, the relative value of R_5 increases accordingly. A crucial factor in the scenario is clearly R_6 .

To summarize, the basic parameters of a desired population parity are clearly interrelated. It is possible to influence the labour ratio (R_2) as well as the non-Kuwaiti crude labour participation rate (R_3) through a migration policy. Thus, given a policy objective of some desired balance stated in terms of one or more of the above-mentioned parameters, it is possible to analyze the consequences of alternative migration strategies. But it is important to consider the role of relative productivity (R_6). An attempt to change R_6 has implication for both the design of a migration policy and a national policy of human capital formation. Other factors, however, may not be immediately related to a migration policy. For example, a large component of the Kuwaiti crude labour force participation rate (R_4) may be related to changes in the female labour force participation and to changes in fertility.

The question then is whether these ratios are sensitive to policy intervention. In the simulation exercise it was assumed that the Kuwaiti crude labour force participation rate (R_4) will increase by 13 percent during a period of ten years. R_4 increases if relatively more people work. Women are one segment of the labour force that is not adequately represented, partly because of traditions, lack of skills, and the presence of high fertility. None of these can change in the short run without an active policy of social reform. But the assumption seems to be in the right direction. A policy that attempts to reduce R_4 through increasing fertility in Kuwait is clearly against the tide. Here the identity of the TFR ($C = C_m \cdot C_c \cdot C_a \cdot C_i \cdot TF$) should be useful as a general guide [8].

In Kuwait the TFR is about 7.0. It is high but still lower than that in some other communities. For example, the Hutterites of North America have a TFR around 10. Then a Kuwaiti planner and demographer would ask why Kuwait cannot reach that level. Kuwait is a healthy society (TF is high) and marriage is universal. Then what are the means to increase the TFR from 7 to 10 in order to manipulate R_4 . An objective examination of such possibility for the case of Kuwait should point out which one of the TFR components could be influenced by policy. If these components are moving in the opposite direction, given the dynamics of society,

could a policy be formulated to go against the tide? Is it feasible, and at what cost? The direction of social change in Kuwait seems to exert a downward pressure on fertility. For example, the number of living children ever born to Kuwaiti women in age group 40–44 varied between 6.6 for illiterate women and 4.3 for women with secondary education, and 2.9 children for those with university education [14]. Given the current high school enrolment of Kuwaiti girls, the future seems to be towards a decline rather than an increase in R_4 . Other trends seem to influence fertility negatively, e.g. age at marriage (C_m) seems to increase and female labour force participation also shows a significant upward trend. On the other hand, lactation behaviour seems to decline (i.e. C_i increases) with a positive effect on fertility. Indeed, discouraging lactation has undesirable health and psychological consequences. Accordingly, a policy that attempts to increase R_1 by influencing R_4 should consider the expected trend in R_4 and the negative consequences of altering that expected path. The social cost of such policy needs careful evaluation.

Influencing the non-Kuwaiti crude labour force participation rate has its own limitations. An R_3 of 0.4 is relatively high. It can be increased, however, through contractual arrangement, e.g. duration and the number of dependants allowed. For example, labour is being imported as part of a contract with a specified job and duration. This novel system, being labelled as the “camp approach”, is essentially a contract to import semi-finished goods to be completed in the host country using foreign labour and technology. It minimizes interaction between local and foreign labour forces and reduces the diffusion of new skills to local workers. It seems that attempting to influence R_3 through either of these two strategies could produce negative externalities.

A direct and efficient way to increase R_1 is to implement a more liberal naturalization policy. At present, Kuwait has a restrictive policy. The policy is being debated. But demographic concern is only one of many factors to be considered. The long-run vision of achieving an optimum size of a Kuwaiti population that is in balance with the long-term development potential of the country's resource endowment, which is also internally integrated, whose value system is consistent with the heritage of an Arab society and that is socially and politically in harmony with the larger society of the Arab World, is indeed complex to design. There is an understandable cautionary attitude to use naturalization as a demographic policy tool for influencing R_1 .

Another policy option is to induce changes in R_2 and R_1 by influencing the rate of growth of economic activities and the degree of its labour intensity. Slower economic growth seems to be the current strategy – a response partly to a weakened international demand for oil and partly to demographic considerations.

To summarize, the labour-importing countries, faced with recent unfavourable demographic realities, will actively develop population policies that are consistent

with their socio-economic plans. The flow of labour immigration is a tool that can be manipulated on relatively short notice. The economic cost of such policy is *relatively* simple to estimate. The labour-exporting countries, on the other hand, should not take the current pattern of international migration as given. Past growth in labour demand has been a function of changes in national and international conditions. It was not difficult, then, to predict these trends. But, as we have seen, the demand for expatriate labour is becoming increasingly the outcome of a complex socio-political decision processes. These are difficult to predict, even when using the best tools in the economist's bag. Relying on the economic returns of emigration (remittances) as a critical resource for long-term planning could be risky. There are additional costs, however. These will be examined next.

PUZZLES IN A LABOUR-EXPORTING COUNTRY: THE CASE OF AGRICULTURE IN EGYPT

Now we can examine the case of labour-exporting countries. It is an interesting subject where the emphasis has shifted dramatically from a concern with the negative aspects of the brain drain to an attempt to maximise the drain of human resources regardless of their skill content. Contrast, for example, the concern of Bhagwati [3] or Zahlan [33] with that of Ecevit [13] or the World Bank [30]. The current emphasis is to maximize the emigrants' remittances, especially their foreign exchange content. This is a dramatic shift of social concern. It is almost a 180-degree shift. It implies a novel econo-demographic policy – a policy that could have unexamined implications for the stability of the socio-economic system. It also raises difficult conceptual issues. An important question is the validity of perceiving human resources as an export commodity. I think this view needs reflection. If workers are export commodities, then society should be willing to treat them as such. There should be an R&D activity that searches for the “best” available technology to produce these exportable human resources at minimum cost. There should also be a system of quality control that screens out those who do not meet the minimum “export standards”. Fiscal and monetary policies should be developed to ensure that the production of these exported skills are sensitive to relative local and international “prices”, to maximize foreign exchange earnings in the long term. And, as an accounting procedure, their “value” should enter the foreign trade statistics. One may even consider whether it is more “profitable” to export these human resources at younger age or at older age, e.g. the export of children may produce higher *net* discounted returns. More to the point, once exported, society may have to give up its claim of “ownership”, just like the case of any other traded (non-public) good!

The purpose of these remarks is not to be sarcastic, but to indicate the non-emotional implication of this emerging public perception of human resources as an export commodity. The history of social science – and that of economics is no exception – indicates a heavy metaphorical tendency. Putty clay, a marriage market, turnpikes and human capital are illustrative examples. Indeed, “metaphorical thought” is a distinctive mode of achieving insight [6]. Children, like durable goods, and emigrants, like exportable goods, imply that both do not have their own opinion. Yet the metaphor provides us with implications that, in its absence, may not have been foreseen. We must be careful not to end up believing that what we invented is the undisputed reality.

Indeed, the process of current emigration is not strictly comparable with the export-goods metaphor on another fundamental account. Most of the migrants return back, with an average duration of 2-3 years—probably as net consumers in their native lands. Emigrants may also be viewed as social capital whose services are exported. The capital good itself (i.e. the emigrant) is being rented out. It is moved temporarily to the importing country and returned home at the end of the contract period. Conditions of the contract may include provisions for penalties in case of misuse (e.g. abnormal depreciation) and credit in case of additions (e.g. training). The scope of these conditions and their effective implementation will depend on the relative “power” of the negotiating parties. The social accounting implication of this view could be worked out in principle. But the societal welfare implications of viewing human resources as pure capital goods need careful reflection. At this point, it will suffice to quote Neil W. Chamberlain on the issue:

It is the implicit ethical foundation for this supposedly objective formulation which bothers me. While purporting to ethic and value free, in the sense that it takes purposes and preferences as given and confines itself to drawing conclusions on the strength of the price and data which are generated, human capital analysis harbors ethical persuasions . . . Capital, including human capital, is integrated into a production system and controlled for purposes which lie outside itself . . . We do not think of capital as having wishes and needs which are independent of the production process of which it is part . . . We are in danger here of repeating the intellectual excesses of the scientific management movement of the turn of the century. Under the leadership of Frederick Taylor, it treated workers purely as instruments in a production process . . . [10, p. 233].

The subject is evidently complex. Our purpose in this brief discussion is to narrow the focus. The present attempt is to deal only with one sector (agriculture) and with one issue (productivity) and to concentrate on one country (Egypt). It

needs no reminder that there are other equally important issues. These issues deserve a lengthy footnote.⁶

Egypt has a limited arable land area. At present, the cultivated area is about 5.9 million feddans, with a cropped area of about 11 million feddans. In 1907, the cultivated area was about 5.4 million feddans so that there has been an increase of 0.5 million feddans compared with about 32 million people added to a population of 12 millions at the beginning of the period [2]. During the past 20 years, about 900,000

⁶Some of the important economic consequences of emigration to the labour-exporting countries include the following:

Remittances: The flow of workers' remittances is the most widely recognized immediate benefit of international migration. It augments scarce foreign exchange earnings and provides for a potential source of additional savings and capital formation.

There are negative elements associated with remittances, however. They are uncertain and unpredictable, generate inflation, provide for a value system that may not be conducive to development, e.g. conspicuous consumption, and a potential for expenditure in non-productive activities (e.g. speculative activities that may raise the price of farm and non-farm land). On balance, it is not evident whether the flow of remittances would have a net benefit in the longer run.

Employment: Emigration could influence employment in many ways:

- (a) the outflow of the unskilled, the underemployed and the unemployed should improve the labour market situation – but migration selectivity usually goes the other way;
- (b) remittances may fuel demand for home goods and services that may generate employment – but there is an associated loss of output as a result of labour out-flow; and
- (c) public welfare expenditure may be reduced and, accordingly, released for other production investment – but additional expenditure will be needed to train those local workers to replace those who left, causing an additional loss of output as well.

Structure of the Labour Market and Income Distribution: Labour emigration may cause severe shortages in some specific skills and sectors. Shortages of construction workers have been documented for Egypt [11]. These shortages create changes in relative prices that influence the functional and personal distribution of income in ways that have not been examined in depth. See, for example, Alloush [1] for an attempt to conceptualize the issues. International migration is either perceived as temporary or permanent. It has a stated contract. In the case of temporary rural-international migration, the social implication for household structure, the role of wives on decision-makers in family economies and child-raising spheres could be substantial. What happens to savings – whether invested in ways to raise farm productivity as opposed to buying land (raising prices), buying consumer goods or building houses on the farm – is not clear.

Urban Growth: Two factors could accelerate urban growth: (a) those from rural areas attempting to migrate abroad may settle in urban areas without leaving the country or may settle in urban areas on their return from abroad (do not return to rural areas), and (b) also, to the extent that a relatively skilled labour force may emigrate, the demand for workers in the urban modern sector may increase, creating a rural-urban flow.

Fertility: In contrast to labour migration to Northern Europe, the Middle-East migration is destined for areas with high fertility and high consumption aspirations. It is possible that high fertility norms may be enforced as a result of the emigration process. Indeed, the apparent labour shortages in key sectors may not induce public support for low-fertility norms. This could have detrimental long-run socio-economic consequences.

feddans have been reclaimed at the cost of about one billion Egyptian pounds (£E = US \$ 1.2 at the official rate). Only 4 percent of this newly reclaimed land has reached current levels of marginal productivity. On the other hand, the cultivated area is losing about 75,000 feddans annually to urbanization, housing growth in rural areas and non-agriculture use [2].

Secondly, Egypt seems to be facing a widening gap between food production and consumption. As Table 6 illustrates, in 1970 the value of agriculture exports was almost double that of imports, with a surplus of about 320,000 US dollars. In 1981, the deficit skyrocketed to 3.3 billion dollars. Projection for the coming years indicates a much wider gap. The gap is an outcome of many factors, e.g. an income-induced increase in food consumption, a very weak growth in agriculture productivity in general, and an apparent shortage in agricultural workers.

Table 6

Egypt: Value of Agricultural Imports and Exports, 1970-81

(Thousand US \$)

Year	Imports	Exports
1970	209,610	521,370
1971	309,640	557,500
1972	283,590	512,120
1973	427,429	717,150
1974	1,005,720	892,620
1975	1,497,432	782,090
1976	1,358,949	733,610
1977	1,670,858	822,820
1978	2,193,227	663,780
1979	565,000	610,110
1980	3,363,000	672,780
1981	4,000,000	700,000

Source: FAO Trade Yearbooks, United Nations Trade Data, CAPMAS, USDA Estimates.

The Egyptian Government outlined an agriculture strategy to deal with the situation [29]. The strategy is developed around some objective criteria: to maximize total net national agricultural output, to achieve a minimum standard of social equity, to attain food security defined as the fulfilment of production targets, to increase net agricultural economic industrial resources, and to provide a stable supply of agricultural inputs to local industries. In the strategy, the factors responsible for the decline were divided as internal and external to the agricultural system. The first internal factor listed in the Ministry's strategy was the presence of an

excessive rate of population growth. Others include an excessive degree of land-ownership fragmentation, the existence of primitive technology and techniques, an inefficient and ineffective marketing system and an inefficient agricultural institutions at various levels. External factors included an inadequate agricultural pricing system for both inputs and outputs which have created distortions, inadequate flow of investments into agriculture and a lack of coordination. The strategy also calls for an ambitious programme of agricultural mechanization to deal with the current labour shortages. Shortages are being attributed to a high rate of net emigration of agricultural workers.

It is a sort of a puzzle that the high rate of population growth in rural areas and their emigration behaviour are being blamed simultaneously for the decline of the agricultural sector. It is possible, however, to present some hypotheses:

1. Given the complex pricing system of agriculture in Egypt, which penalizes producers for almost all crops except red meat [32], farmers may not have the necessary incentives to invest in their land.
2. Wage rates outside Egypt are many times as high as the average wage for an agricultural worker. A farmer could earn a much higher net income as a construction worker in the Gulf area or as an agricultural workers in Iraq or Jordan.
3. Egyptian agricultural workers seem not to aim at permanent moves. This is illustrated by their high crude participation rates in the receiving countries. Accordingly, they tend to leave behind their wives and children as caretakers of the land.
4. The financial loss of a decline in land productivity even as high as 50 percent may be minimal relative to the new earning potential of the migrant workers, i.e. agricultural land is treated as a consumption good.
5. Agriculture labour supply seems to be losing on two counts: farmers' emigration, and the withdrawal of children and women from the labour market.
6. Consumption behaviour is no longer related to the earning potential of agricultural production. Agriculture is no longer a surplus sector. And the future seems to be even more pessimistic.
7. A new power in rural areas is emerging. Farmers could afford, because of their external income, to pay fines and challenge the existing pricing system in agriculture. It seems to be much easier for the families concerned not to harvest the crop if they have to give a sizable part of it underpriced to the authorities. To them, the cost is not worth the effort. An unknown proportion of the land is being kept out of cultivation or is undercultivated. The power to implement fiscal measures is being challenged.
8. Remittances returning to rural areas seem to be spent mainly on the purchase of consumer durables, on housing and on the necessary maintenance of these purchases. Not much is going to enhance productivity.

9. There are indications that school drop-out rates are growing in rural areas. The opportunity cost of child-schooling, given the going wages for child labour, seems to be high enough to induce a significant increase in drop-out rates. These drop-out rates, when combined with apparent disruption in family life resulting from spouse separation, lead to sizable negative consequences for the development of the future generations.
10. It is not evident how many of those leaving agriculture, either as migrants or as withdrawals from the agricultural labour supply, are returning to the farming profession.

It is evident that emigration in the case of Egyptian agriculture case has to be evaluated not only in terms of the gross benefit of remittances, but also in terms of their effect on local production and its distribution in the short and long terms. Indeed, there is another factor usually forgotten. It is the rising expectations of those left behind. They are the frustrated ones. How much of that is reflected in their productivity is an open question.

A final note on the effect of these dynamic forces on fertility. Income has increased without much opportunity costs to reproductive behaviour. But aspirations for new levels and types of consumption have also increased. These may cause some conflict. On the other hand, the value of child labour, if at all changing, is going up. Also, reproductive norms may not be influenced much by the emigrants' new environment. Agricultural workers are not going, for example, to Scandinavia; they are going to countries with high fertility norms. It is possible to argue that the separation of spouses may have a negative effect. This has to be documented. We cannot draw any *a priori* conclusion regarding the effect of emigration on fertility in rural Egypt. Empirical analysis should join hands with undocumented hypotheses.

To conclude, it seems that population and development policies have to take care of the effect of emigration on agricultural productivity through two channels: (a) the effect of remittances on expenditure and labour market behaviour, and (b) its effect on fertility behaviour. To capture those apparently conflicting forces, there is a need for a more innovative and probably politically risky policies. One needs to look beyond the short term. It is not clear to me how, if current trends continue, the agriculture sector, which is a major component of the Egyptian economy, could be sustained through the Eighties. The relevant questions to be investigated are the following:

1. Could the Egyptian village be maintained as a viable socio-economic unit, i.e. self-sustained with a positive surplus?
2. What are the alternatives to vertical development in agriculture, especially with the limited potential for horizontal expansion? I am afraid that the rush towards mechanization without an adequate accounting of labour flows beyond the current phase may result in undesirable consequences. For details, see Sirageldin [21].

3. What are the changes in rural consumption habits? Are they permanent? To what extent do they compete with the saving and investment potential of the rural society?

To reiterate, it must be emphasized that international migration is not the only or even the most important factor in the existing problem of agriculture in Egypt. But it certainly is an important one, which should be given considerable thought when considering policies for the '80s. These are issues that were created in the Seventies and seem to survive and may probably flourish to the end of the century.

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