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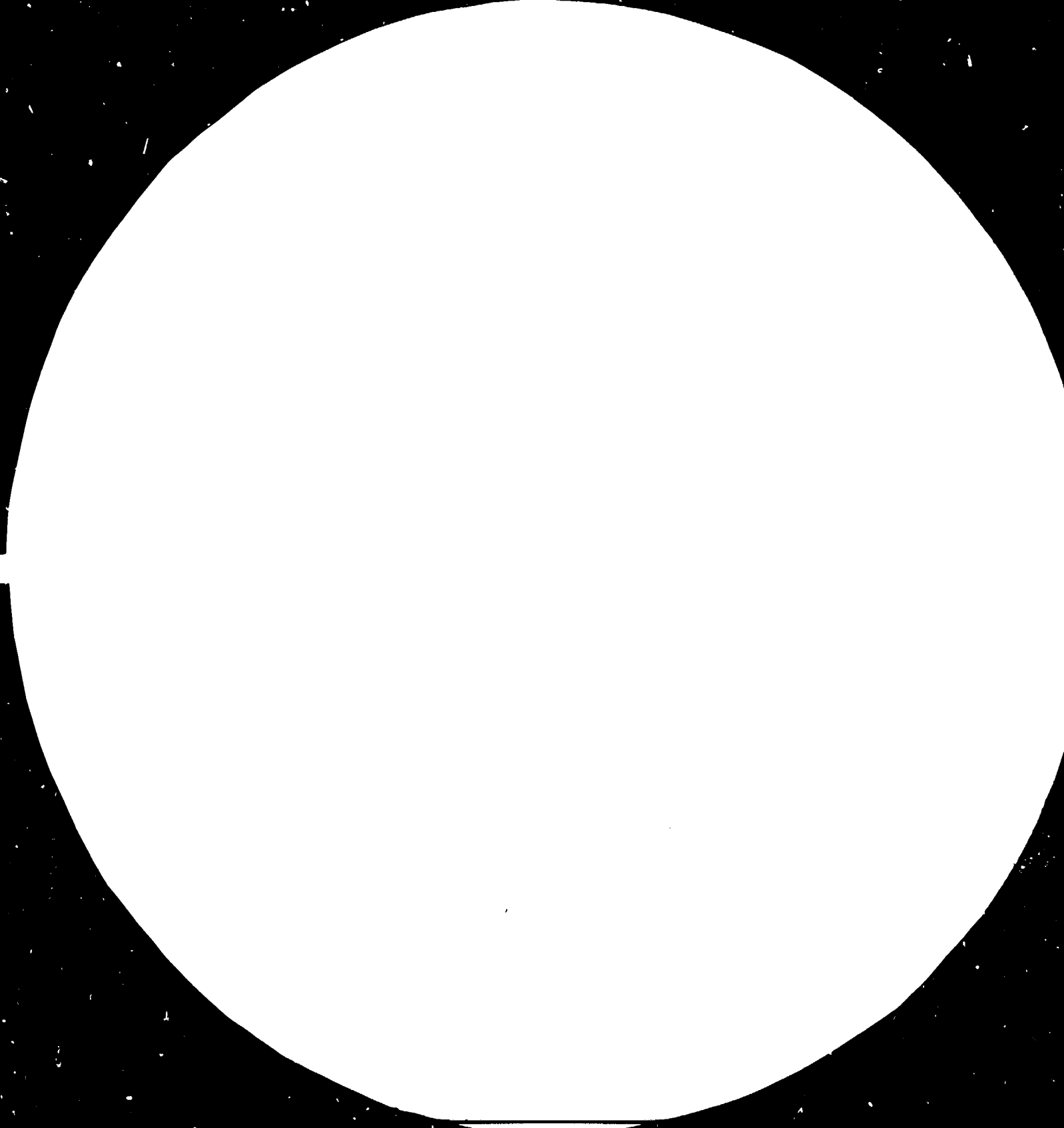
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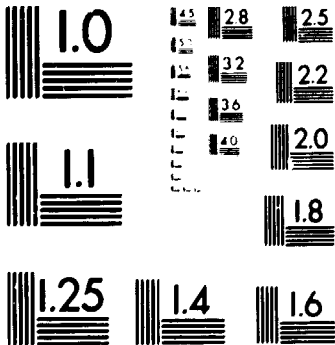
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THE AGONY OF AFRICA .

INDUSTRIAL RESTRUCTURING AND THE PROCESS OF SOCIO-ECONOMIC  
DEVELOPMENT IN AFRICA, WITH PARTICULAR REFERENCE TO THE  
LEAST DEVELOPED COUNTRIES OF AFRICA \*

Social Aspects of Industrialization  
Working Papers

Prepared by the  
Global and Conceptual Studies Branch  
Division for Industrial Studies

for the

Workshop on Social Aspects of the  
Industrial Development Decade for Africa

Tripoli, Libyan Arab Jamahiriya  
30 October - 6 November 1984

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THE AGONY OF AFRICA

INDUSTRIAL RESTRUCTURING AND THE PROCESS OF SOCIO-ECONOMIC  
DEVELOPMENT IN AFRICA, WITH PARTICULAR REFERENCE TO THE  
LEAST DEVELOPED COUNTRIES OF AFRICA

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FOREWORD

As a reflection of deliberations at the Third General Conference of UNIDO in New Delhi in 1980, a recurrent theme at recent sessions of UNIDO's Industrial Development Board (IDB) has been the need to give proper attention to the examination of the social aspects of the overall industrialization process. This was reiterated at the recent Fourth General Conference of UNIDO (UNIDO IV) in Vienna.

In supporting this work and emphasizing it as a priority area of UNIDO's work as defined at its Fourteenth Session, the Seventeenth Session of the IDB stressed that the work should draw on the results of other UN agencies, and the Eighteenth Session pointed to the need to make the work policy-oriented. Explicit and implicit in the IDB discussions on social aspects of industrialization has been the philosophy that it is not only right and proper but also crucial from the policy point of view that an organization like UNIDO concentrating on industrialization also concern itself with its social aspects. Such investigations, further, are a reflection of the widespread consensus in development theory that economic development cannot be conceptualized adequately without the proper inclusion of social, technological and other factors.

While continuing to examine the social aspects of industrialization as an integral part of a number of UNIDO research projects - including among others programmes on structural change and international restructuring, human resource development, the role of women in industrial development, and global quantitative analyses of international co-operation - a specific research project in this area was instituted in 1982 which in its present stage has adopted the concept of socio-economic indicators as a means for providing a composite picture of the multidimensional development process. To date, one methodological study (UNIDO 1981), four cross-sectional and intertemporal surveys at the global level (UNIDO 1982a, UNIDO 1983b, UNIDO 1983c, and UNIDO 1984b), and a small simultaneous socio-economic model (1984d) have been published. The present study continues the investigations at the more disaggregated level of the African least developed countries (LDCs) and has been prepared at the invitation of the African Centre for Applied Research and Training in Social Development for their Workshop on Social Aspects of the Industrial Development Decade for Africa.<sup>1/</sup>

At the recent Fourth General Conference of UNIDO, representatives of a number of States and Organizations prefaced their comments on industrialization by recalling that the developing world was still riddled with poverty, hunger, endemic diseases, internal strife and persecutions on racial and political grounds. Under such conditions it is very difficult to foster economic development and achieve objectives such as those of the United Nations Third Development Decade for the developing countries, of the Lagos Plan of Action for the countries of Africa, or of the Substantial New Programme of Action for the 1980s for the least developed countries. It is for this reason that increasing attention is being given to the socio-economic (as well as the socio-political and socio-cultural) framework within which industrialization takes place, and to efforts to seek ways to be better able to carry out the industrialization effort and achieve the development goals which the developing countries of Africa have set for themselves in the Industrial Development Decade for Africa (IDDA).

UNIDO has, both through words and actions, expressed its support for the industrialization of the African countries - most recently in the form of the portfolio of industrial projects proposed for the African countries to be implemented in the medium-term within the framework of the IDDA presented to the recent Fourth General Conference of UNIDO (UNIDO 1984c). But the Organization is also clearly aware of the intimate relationship between industrial structure and industrialization on the one hand, and the social structure and overall development of a country on the other - and of the fundamental fact that the pace at which the industrialization effort will be able to proceed in the African countries is crucially related to the rate at which social development progresses.

The plenary sessions of UNIDO IV discussed at some length the current global economic crisis, and these discussions provide the basis for the introduction to the present paper, which is followed by a short review of the process of industrial development and restructuring in the least developed countries (LDCs) of Africa - countries which, despite their disparities, are almost universally united in struggling to initiate an industrialization effort with the common afflictions of extreme poverty, poor natural, physical and human resource endowments, high rates of population growth, very weak infra-structural development, and unfavourable ecological and geographical

conditions and which in general face a much greater challenge to their industrialization than the other countries of the South or even of the rest of Africa. There next follows an overview of the social development in the African least developed countries in 1980 (the most recent year for which reasonably complete social data for these countries are available).

The study then reviews some characteristics of the relationship between the industrialization effort and the social structure of South over 1960-1980, which serves as the background for an empirical examination of the interrelationships within the socio-economic development process over the preceding two decades in the African LDCs (with some data extending to 1982). Previous studies have suggested that the nature of the relationship between economic and social development varies with the level of economic development, and these results are examined further for the African least developed countries as a group, with comparison made with the results for the Sub-Saharan African countries and for North Africa and the Middle East, as well as for the most industrialized developing countries. The last section of the study presents selected conclusions from the foregoing analysis.

In carrying out this investigation, the maximum use has been made of the results of allied research at the World Bank, ILO, UNRISD and other UN bodies and agencies, as well as of earlier UNIDO working papers on social aspects of industrialization.

The present study was prepared by the UNIDO Secretariat; computer assistance was provided by Mr. K. Müller, a junior consultant working for the Secretariat.



### Introduction

On the global level the world has now experienced some four years of an international economic environment which has debilitated the economies of the developed and developing economies alike, but where, in human and social - as well as physical - terms, the negative impact of the recession on the developing countries as a whole has been all out of proportion both to their share in the world economy as well as to their responsibility for the crisis. In recent years the unilateral policy measures of the developed countries have contributed to a highly uncertain and volatile external environment characterized by high interest rates, greatly depressed foreign demand, and falling terms of trade. The more developed countries have then retreated back into their cocoons, abandoned multilateralism, and adopted unidimensional, nationally oriented policies. The resulting external economic environment is incompatible both with the attempts by the developing countries to nurture their development aspirations, as well as with the social and political stability that are both the prerequisite and long-term objective of their industrialization.

At the same time, misfortune has been compounded by mistakes in the developing countries; and as a number of third world representatives remarked at UNIDO IV, the third world also bears a considerable share of the responsibility for their problems. Management has often been inefficient and resources poorly allocated in the developing countries and corruption in high places openly acknowledged; and the economic structures of the developing countries are highly vulnerable, and the economic policies of most of the countries lack in flexibility. This is not to mention the enormous waste resulting from wars, revolutions, and armament expenditures. At the same time, the history of the last two decades has clearly shown that similar levels of resource endowments, external assistance, and social infrastructure can lead to different levels of development. I.e., domestic economic and social policy in developing countries can matter.

The current development crisis has led to the neglect of the social aspects of the development process, and of the long-run dimension of development in general. This makes it more imperative than ever to press the logic of recovery and development on the global scale and thereby to push

integrated socio-economic development forward, rather than allowing it to spin in place or even roll backwards. For indeed the World Bank's most recent World Development Report projects stagnation for the African countries to the year 1995 in per capita terms (World Bank 1984).

Are there signs today of a revitalization of the world economy that will lead to a transformation of the dormant potential of the countries of Africa into active markets, of a economic reactivation that would release the strong latent growth impulses, that would allow the African countries to pursue the development of the human and social infrastructure that is absolutely crucial if particularly the African LDCs are to move beyond agriculture and simple raw material processing and to pursue meaningful industrialization? The collective wisdom today in the North is that recovery has begun. But it is not only a recovery that is going on despite the developing countries, but sometimes - as through protectionary policies - at their direct expense.

It is therefore absolutely imperative, as argued by Dr. Abd-El Rahman Khane, Executive Director of UNIDO, in his opening address to the UNIDO IV Conference, that measures be taken immediately to invigorate the international economy via the industrialization of the developing countries, with the objective of attaining the continuous improvement of the living standard of the people in the developing countries - and particularly the poorest of the poor (UNIDO 1984a). This industrialization, however, presupposes a certain receptive and mutually supportive social, political and culture environment. And this in turn requires a fresh look at long-term industrial development strategies and policies (and mixes of policies) for the developing countries, since industrialization does not amount to simply grafting one or more sectors on to an existing superstructure.

For the countries of Africa, and particularly for the LDCs, the world has been turned upside down since the mid-1970s, with the result that, at best, these countries have been forced to refocus their industrial structural adjustment policies, and in some cases stand witness to the stillbirth of their nascent industrial structures. There exists, indeed, a fear that in these countries the crises is getting totally out of hand. In the words of the Executive Secretary of the Economic Commission for Africa at UNIDO IV, the African economy is going from one crisis to another, with economic performance

worsening every year. Industrial capacity, instead of serving as the engine to pull the economy out of the recession, is being run down, standing idle, or even being dismantled; and even in these very young economies there is often an urgent need to completely restructure industry. This is what UNIDO's Executive Director meant when in his opening address to UNIDO IV he spoke of "the agony of Africa" (UNIDO 1984a).

Under these conditions, where the social sector bears the brunt of much of the forced structural disadjustment, by which is meant structural adjustments that run counter to those that would be in the best long-run interest of the country's development policy, the future of the social order is bleak and uncertain. The reduction of government expenditure in the critically affected African LDCs on food, education, and health, will have far-reaching, long-term consequences on the building of human capital and the development of the human resources that policy makers across African recognize as absolutely fundamental. Moreover, the resulting forced reductions in the spending on tele-communications, technology and other key sectors must markedly impair the countries' long-term growth potential; and all of these factors, of course, work against the achievement of the ultimate objectives not just of industrialization, but of the entire development policy.

Industrial Restructuring and the African LDCs <sup>2/</sup>

Despite their individual specificities both when examined in terms of their economic development (indicated by, e.g., per capita GDP or manufacturing value added, MVA) and in terms of their social development (indicated by, e.g., literacy rate and life expectancy) - and even more so demographically - the least developed countries of Africa demonstrate a homogeneity in socio-economic development that sets them often not only from other groups of developing countries (with the partial exception of some small South Asian countries) but also from the rest of Africa. With few exceptions, the LDCs have small populations, are geographically disadvantaged, have limited markets with no leverage over suppliers, face extreme difficulty in securing access to markets, suffer from unfavourable ecological conditions, were not focal points of colonial interest, and in the post-independence period have suffered from having a position on the extreme periphery of the international stage (see Weiss and Jennings 1983).

Table 1 presents a picture of some of these key elements in the socio-economic development of these countries, and shows (excluding Botswana, where the discovery and exploitation of mineral deposits and the accompanying external financial inflows have markedly altered its status since its inclusion as a LDC) a GDP per capita range in 1980 of US\$ 101 to US\$ 335, a MVA per capita that ranged from US\$ 5 to US\$ 26, and a gross fixed capital formation per capita of between US\$ 11 and US\$ 114. It also shows that they have remained primarily highly agrarian countries with the majority still having 80% or more of their labour force employed in agriculture.

Moreover, however, the African LDCs also demonstrate, in respect to the process of industrial restructuring, some common elements. More specifically, these countries' bottom position in terms of per capita income levels is matched by their serious structural problems, compounded by severe constraints - internal and external, institutional and resource-based. Development in the post-1973 period has demonstrated that fruitful structural adjustment - and participation in this process in more than a negative and passive way - requires as a precondition a developed human capital, information, technology and (stable) social infrastructure<sup>3/</sup> upon which new industrial investment can operate and with which it can interact. Such basic infrastructural development provides the breeding ground for physical capital investment; but

Table 1: DEMOGRAPHIC, ECONOMIC AND SOCIAL INDICATORS FOR THE AFRICAN LEAST DEVELOPED COUNTRIES IN 1980.

	DEMOGRAPHIC SYSTEM				ECONOMIC SYSTEM			
	Population (millions)	Area (th. sq.km.)	Population Density (th. sq.km.)	Urban Population (% total pop.)	GDP per capita (1975 \$)	MVA per capita (1975\$)	GFCF per capita (1975\$)	Share of MVA in GDP
Benin	3.4	113	30.09	14	149.6	9.7	26.4	6.5
Botswana	0.8	600	1.33	-	718.6	81.7	324.0	11.4
Burkina-Faso	6.1	274	22.26	10	127.2	17.6	21.6	13.9
Burundi	4.1	28	146.43	2	130.6	15.1	19.0	11.5
Cape Verde	0.3	4	75.00	-	268.1	16.4	58.4	6.1
Central African Republic	2.3	623	3.69	41	184.5	25.1	28.4	13.6
Chad	4.5	1284	3.50	18	131.6	11.5	15.7	8.7
Comoros	0.4	2	200.00	-	194.2	10.2	62.1	5.2
Djibouti	0.4	22	18.18	-	220.2	-	-	-
Equatorial Guinea	0.3	28	10.71	-	100.9	5.3	11.1	5.3
Ethiopia	31.3	1222	25.61	14	112.5	12.11	14.3	10.8
Gambia	0.6	11	54.55	-	242.2	6.2	87.9	2.6
Guinea	5.4	246	21.95	19	273.9	10.4	39.2	3.8
Guinea-Bissau	0.8	36	22.22	-	190.8	3.0	24.2	1.5
Lesotho	1.3	30	43.33	12	171.4	8.8	37.4	5.2
Malawi	6.1	118	51.69	10	142.7	18.7	41.7	13.1
Mali	7.0	1240	5.65	20	105.1	9.0	16.8	8.6
Niger	5.3	1267	4.18	13	211.5	14.0	29.9	6.6
Rwanda	5.2	26	200.00	4	150.0	20.3	13.7	13.5
Sao Tomé and Príncipe	0.1	1	100.00	-	220.0	-	-	-
Sierra Leone	3.5	72	48.61	22	218.4	14.5	30.1	6.6
Swazila	3.9	638	6.11	30	122.1	11.7	31.6	9.6
Sudan	18.7	2506	7.46	25	334.6	25.8	51.0	7.7
Tanzania	18.7	945	19.79	12	175.9	13.9	33.5	7.9
Togo	2.5	56	44.64	20	232.7	13.4	113.5	5.8
Uganda	12.6	236	53.39	9	223.0	11.2	17.9	5.0

Sources: World Bank (1982, 1983, 1984), ILO (1980), UNRISD (1977), FAO (1981), UN (1981), UNIDO data bank.  
For more detailed sources see UNIDO (1984b).

	GDP	MVA	Growth Rates (1960-1980)	
			Exports	Agricultural v.a.
Benin	2.13	3.93	8.53	1.72
Botswana	9.44	10.54	16.68	2.46
Burkina-Faso	2.83	7.15	6.88	0.24
Burundi	0.42	6.76	0.76	-1.02
Cape Verde	4.83	5.74	-3.54	4.39
Central African Republic	1.46	5.09	1.39	0.38
Chad	-0.08	2.34	3.54	-0.09
Comoros	3.33	6.31	0.80	1.95
Djibouti	-	-	-	-
Equatorial Guinea	-4.69	-2.57	-5.60	-6.60
Ethiopia	3.34	5.71	3.87	1.66
Gambia	3.21	1.67	2.96	1.74
Guinea	2.08	3.49	4.06	0.19
Guinea-Bissau	2.47	5.09	1.08	1.28
Lesotho	6.10	-	9.09	-0.34
Malawi	6.51	12.34	4.32	4.83
Mali	2.10	5.36	6.01	-0.34
Niger	5.31	5.88	6.49	3.96
Rwanda	5.42	21.15	9.68	2.94
Sao Tomé and Príncipe	-	-	-	-
Sierra Leone	4.40	4.62	0.92	3.22
Somalia	2.32	8.88	3.85	0.49
Sudan	2.19	2.91	1.02	-1.09
Tanzania	5.23	7.01	2.50	3.92
Togo	4.78	6.38	7.67	-0.12
Uganda	2.63	1.29	-1.00	2.73

Table 1 cont'd

## SOCIAL SYSTEM

Distribution of Labour Force(%)			Life exp.	Literacy	Inf. mort.
Agriculture	Industry	Services	(years)	(%)	(per '000)
5	16	38	47	26	154
-	-	-	50	35	-
82	13	5	39	5	211
84	5	11	42	25	122
-	-	-	61	37	-
88	4	8	44	33	149
85	7	8	41	15	149
-	-	-	47	-	-
-	-	-	45	10	-
-	-	-	47	-	-
80	7	13	40	15	146
-	-	-	42	15	-
82	11	7	45	20	165
-	-	-	42	28	-
87	4	9	51	52	115
86	5	9	44	25	172
73	12	15	43	10	154
91	3	6	43	10	146
91	2	7	45	50	137
-	-	-	-	-	-
65	19	16	47	15	208
82	8	10	44	60	146
72	10	18	46	32	124
83	6	11	52	79	163
67	15	18	47	18	109
83	6	11	54	52	97

this infrastructure, in turn, requires industrial development to provide the inputs necessary for its development. Thus there is an interdependence and reinforcing momentum in the process of industrial, technological, human and social development that requires that these elements be developed simultaneously.

One very general indicator of the extent to which these preconditions are missing here would be very low level of literacy rates - half being 25% or below - that is, indeed, one of the criteria for selecting the countries to be designated as LDCs. Proper measurement of the socio-economic and techno-economic infrastructure required for socio-economic development, however, requires examination of a much wider range of indicators (1984e), some of which are discussed in detail below, that can only be broadly suggested by making reference to the wide spread malnutrition and lack of safe drinking water, as well as very limited education and health systems in the LDCs.

Moreover, a positive and active, as opposed to a negative and passive, policy of structural adjustment at the national level requires characteristics such as efficient and trained management cadres, political stability, and an appropriate institutional framework. These are, in general, features which are simply not present to a sufficient degree in the least developed countries of Africa. Further, they have, through their technological and financial dependence on the North, developed an industrial structure that is import-oriented rather than export-oriented, and therefore often not oriented to their best interest.

An examination of the industrial structure of the African LDCs and the relative position of the manufacturing output in a global perspective as given in UNIDO's recent Industry in a Changing World (UNIDO 1983a) illustrates the extent to which these countries are still at an extremely early stage of the industrialization process; that manufacturing has a very small weight in the overall domestic output of these countries; and that the sectoral distribution of MVA is still limited to one or two basic processing sectors. These points are reflected at the country level on Table 1, while the aggregate data on Table 2 illustrate how, while the relative share of the agricultural sector has been falling, the major transformation that has occurred has been in the



Table 2: SHARES OF MAJOR ECONOMIC AGGREGATES IN GDP IN AFRICAN LDCs  
(weighted average)

Share in GDP (%)	1960	1970	1975	1980
Agriculture	60.36	50.21	45.79	43.6
Manufacturing	5.56	9.22	9.60	8.89
Services	27.24	34.33	37.92	40.27
Exports	13.72	16.05	15.71	13.80
Imports	20.73	26.38	27.66	24.70
Gross Fixed Capital Formation	10.72	15.60	16.10	16.35

Sources: See Table 1.

growth of the relative importance of services (and the informal sector) even in countries at such a low level of development, and only marginally of manufacturing.

The aggregate figures also suggest both that this absolute increase of 3.3% in the relative share of manufacturing required almost twice this increase in the share of capital investment, as well as also an increase in imported inputs that was not matched by a corresponding increase in exports. The combined impact of all these features of a very early stage of industrialization details the extent to which these countries have been by-passed by the process of global industrial restructuring. Further, an examination of the pattern of correlation of the sectoral growth rates over the period 1960-1980 shows a positive coefficient of correlation between the growth rate in agriculture and that in manufacturing and the rest of the economy.

This in turn is in contradiction to the result obtained for the group of most industrially advanced developing countries where there were negative correlations between agriculture and manufacturing and between agriculture and services, suggesting there was a choice mechanism for strategies and policies focusing relatively more on one or the other sector. These results could then be interpreted to imply that the African LDCs are at such low levels of development that a division of the economy into externally oriented and

domestically oriented sectors, one or the other of which is given priority by policy makers has not yet arisen. Both of these interpretations, in turn, would be consistent with the overriding - and unifying - need to meet (almost) all basic needs domestically, and the inter-related nature of the basic needs produced could be the underlying factor behind this correlation.

The development of an appropriate, efficient, and flexible industrial system is the only possible vehicle for propelling the African countries forward in their overall development. But this process must be fueled by the development of the skills suited to the needs of countries at the initial stages of industrialization; by the introduction of appropriate, the upgrading of traditional, and the refinement of modern and new technologies to the needs of very poor countries; by the orientation of investment to the establishment of a telecommunications and informational network; and most importantly, by granting pride of place in the formation of development priorities to stimulating human capital development, including techniques of management and entrepreneurship. Policies and strategies in all of these areas come to nought, however, if there does not exist an environment of socio-political stability within which the economic, social and technological systems can function.

Even in the presence of these positive factors, the level of national income in the African LDCs, combined with the often very low levels of foreign investment, is inadequate to generate the requisite levels of savings and investment activity to finance this development process; hence the urgent, and irreplaceable, demand for concessionary financing and lending by national and international bodies. In addition, the concentration and polarization of foreign assistance within the countries of the South is compounded by an uneven distribution of external resource flows within the LDC group itself. But adjustment problem facing the LDCs in their attempt to initiate at least a minimal and sustainable rate of industrial development has no short-term solution, but rather requires a long-term programme of internal structural transformation through industrialization that focuses on reducing the vulnerability and increasing the flexibility of the economy.

This emphasizes the need for new initiatives on the part of the national governments of the richer developing and the developed countries, of the multinational and transnational corporations, as well as of international organizations such as UNIDO. Such international support measures to facilitate accelerated socio-economic development in Africa could include increases in ODA, a larger share of ODA in the form of grants, the simplification of preferential schemes, and the facilitation of technology transfer. Two steps in this direction were UNIDO's recent proposals for a project preparation facility oriented to the preparation and appraisal of projects particularly in the LDCs, as well as the proposal for a programme of technical co-operation projects in support of the implementation phase of the IDDA (UNIDO 1984a).

Generation of an industrialization momentum in the African LDCs that will lead to meaningful socio-economic development also requires fundamental policy decisions and actions relating to the internal sector, including granting priority to: in consumer goods, production of goods appropriate to the needs of the broad mass of the population and not to the elites; in investment, a greater allocation to infrastructural development understood in the broad sense of human capital, telecommunications and information, technology, and social; in agro-industrial development, an increase in agricultural productivity and production; in rural development, measures both to feed the agricultural sector as well as to work to reduce rural-urban income disparities; on the resource base, to increase their sovereignty over natural resources and their control over external resources invested in their countries; in technology, policies to emphasize the role of upgraded traditional and newly generated indigenous technology, with particular emphasis on low-cost, small-scale technologies and those directed to helping meet the needs of the poorest of the poor (the "technologies for humanity"); and in policy making itself, an increase in the flexibility of long-term strategies and policies.

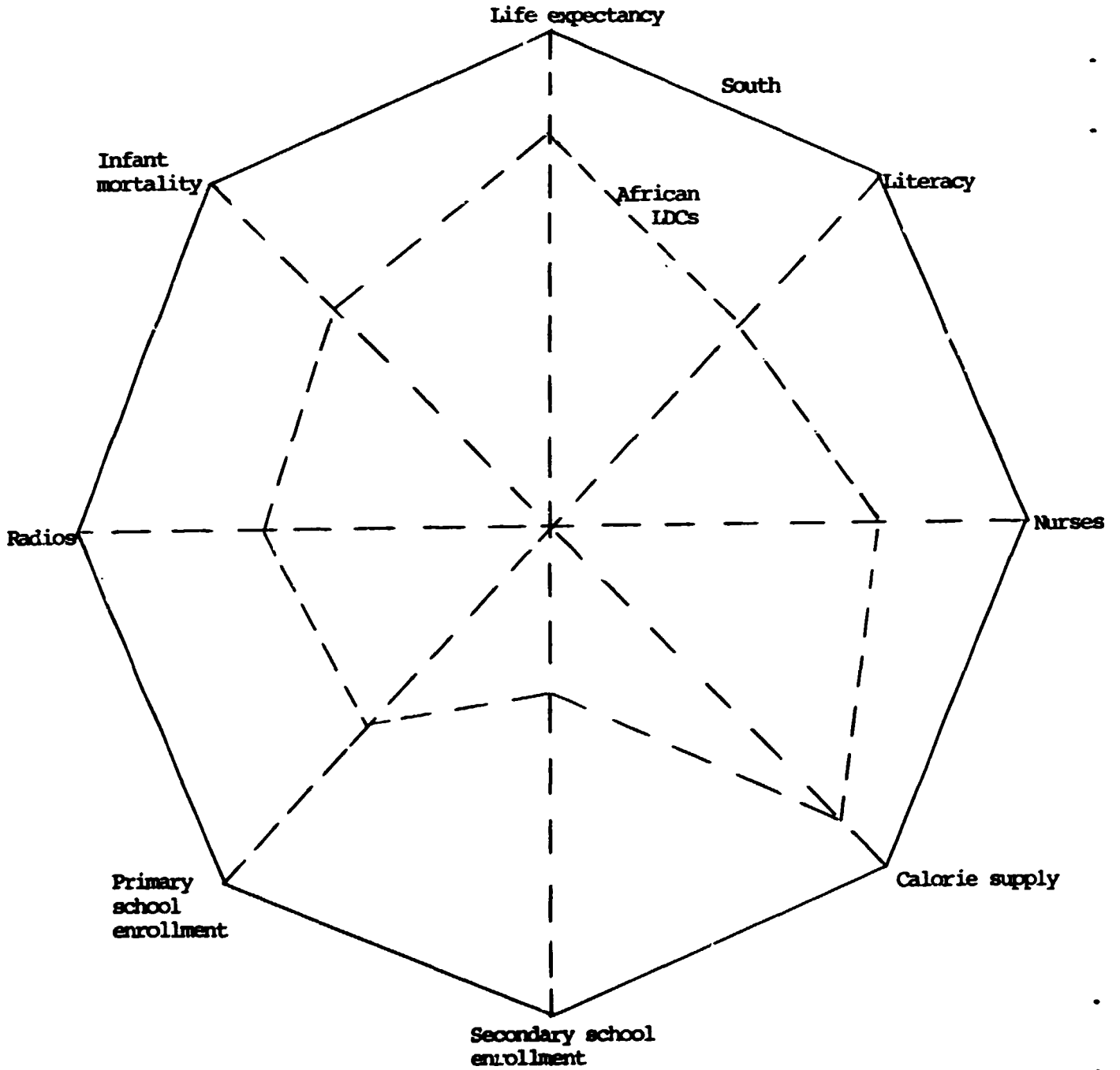
Social Development in Africa in 1980

As an introductory assessment of the relative position of the African LDCs relative to the countries of the South as a whole, Figure 1 shows for 1980 the result of calculating the weighted average of the three "result" indicators (life expectancy, literacy, and infant mortality) which are generally taken as proxies for the outcome of the process of social development, as well as of five "input" indicators which are specific indicators relating to different dimensions of social activities which are traditionally seen as serving as inputs into the process of generating higher levels of social output. As can be easily seen, in each dimension the level of the indicators for the South as a whole far exceeds that for the African LDC group: for literacy, life expectancy, and infant mortality, indicators for the LDCs vary between 58 and 79 per cent of the South, while for the indicators for the five dimensions the range of the value is between 34 per cent for secondary school enrollment and 87 per cent for calorie supply.

In "real terms" this disparity means that the people in the African LDCs live, on average 12 years less than in the South as a whole; that over two-thirds of the population in the African LDCs is illiterate; and that more than one-and-a-half times as many infant deaths occur as in the South as a whole. Add to this the indication that in its economic indicators the African LDCs have achieved only just over 40 per cent of the average Southern levels in GDP per capita and just over 10 per cent in MVA per capita and the desperate state of socio-economic development in the African LDCs become very clear. In a word, "the conditions for the vast majority of the populations of these countries are abysmal" (Weiss and Jennings 1983, 342).

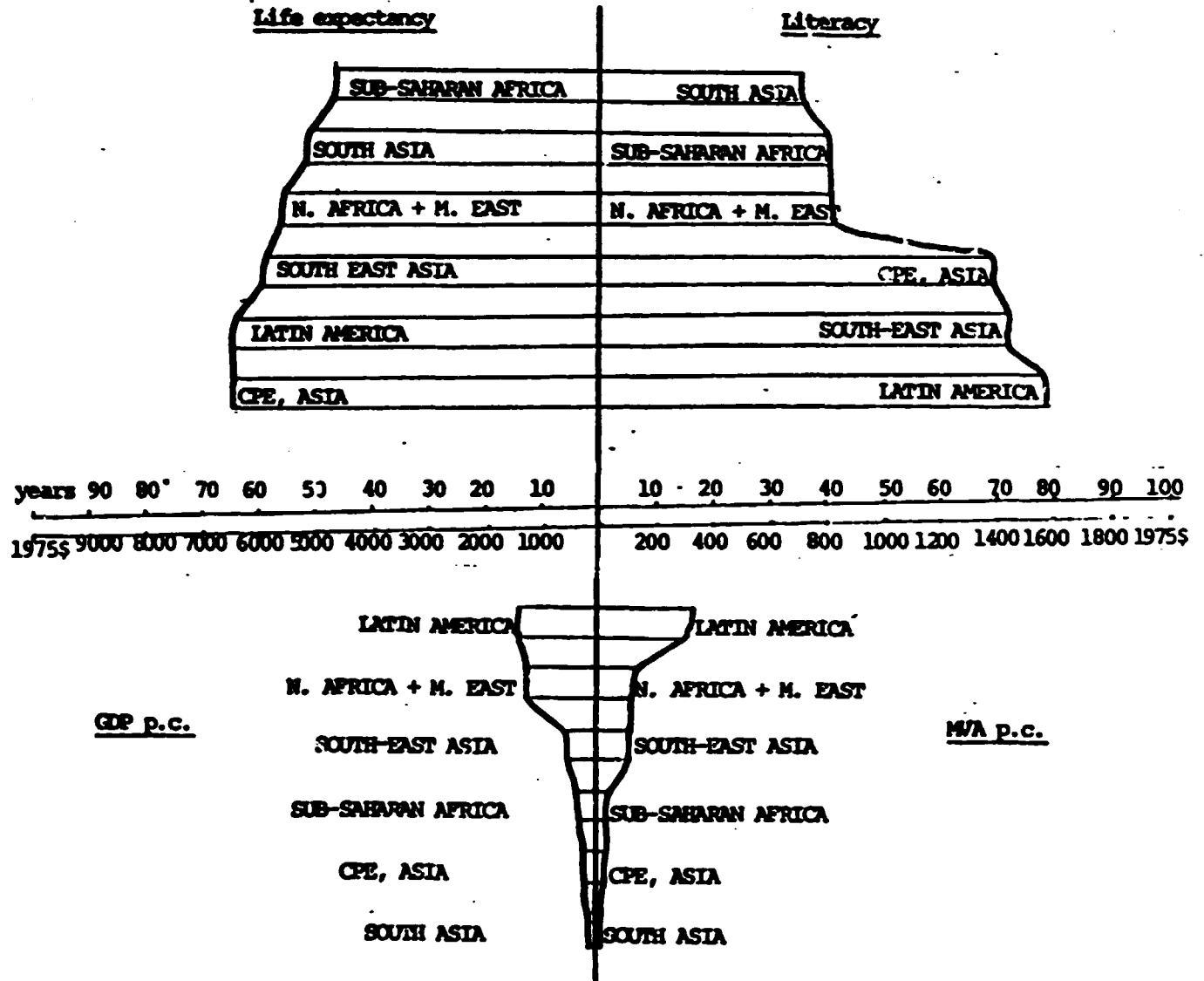
To put these figures in an overall Southern perspective, the developing countries can be disaggregated into six regions, including Sub-Saharan Africa and North Africa plus the Middle East as two of the regions (see Figure 2). For all result indicators there is a great diversity: for life expectancy the centrally planned economies of Asia (i.e., predominantly China) exceed the value for Sub-Saharan Africa by over 16 years; for literacy a similar marked diversity holds, with Latin America exceeding South Asia by 43 per cent (and Sub-Saharan Africa by over 38 per cent); and for infant mortality the figures for Sub-Saharan Africa are over 125 per cent higher than those for South-East Asia.

Figure 1: SOCIAL DEVELOPMENT IN AFRICAN LDCs 1990 RELATIVE TO THE SOUTH AS A WHOLE



Notes and Sources: See Table 1.

FIGURE 2: COMPARATIVE VALUES FOR FOUR SOCIAL AND ECONOMIC INDICATORS



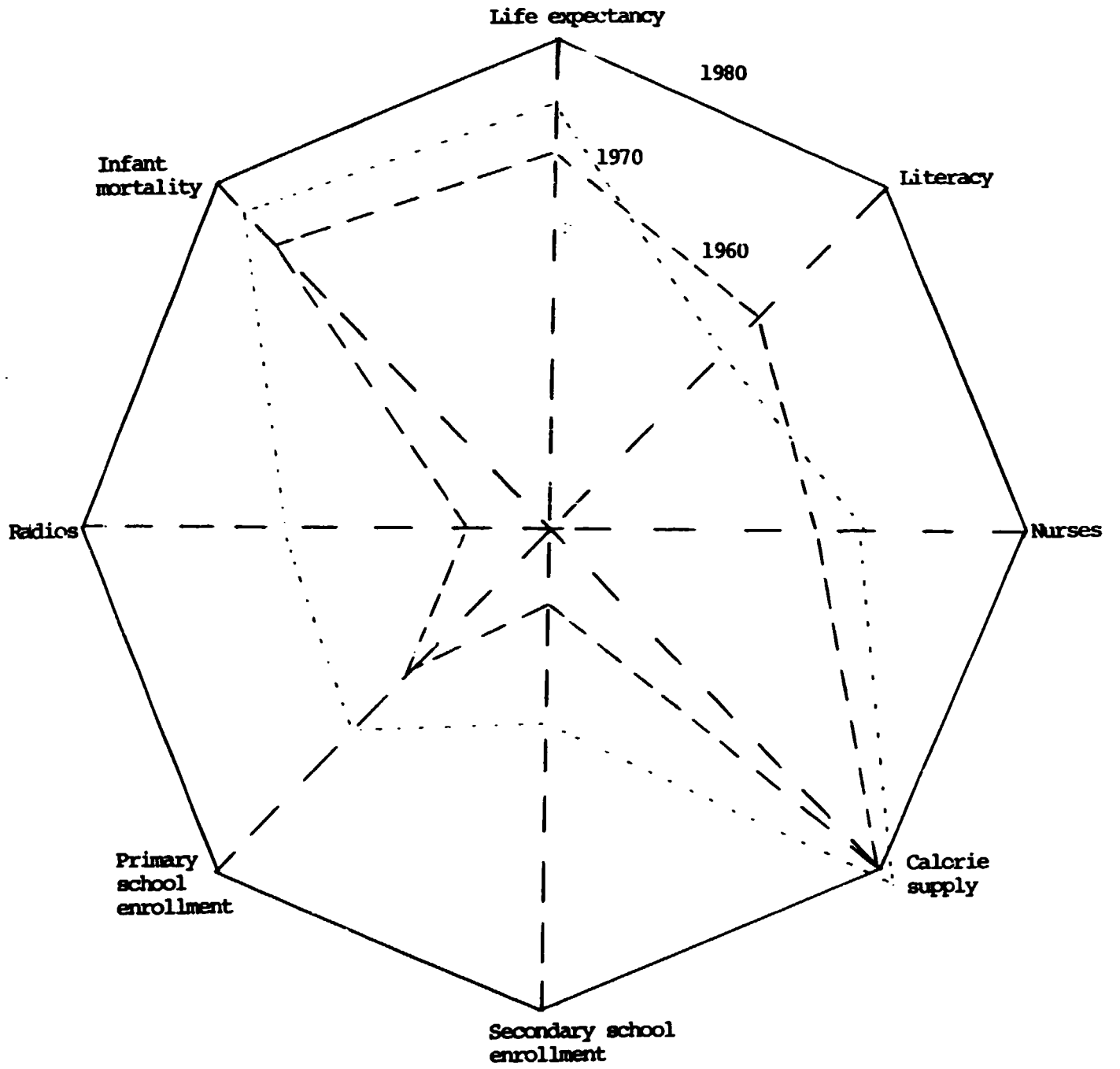
Sources: See Table 1.

And if the bias in socio-economic development against the African LDCs is not clear enough, then the contrast of the above average figures for the South with these for the North (also in 1980) need only be recalled: people in the South live 17 years less than in the North; more than five times as many infant deaths occur; and the figures for GDP p.c., MVA p.c., and GFCF p.c. are only 9.5 per cent of Northern standards (UNIDO 1984b). It seems unnecessary to produce more data to illustrate the African agony.

Socio-economic development by its very nature being not only an extremely complex, but also a very long-term process, even very low levels of development at any one moment in time can be considered somewhat less important if there are clear indications of a monotonic development of the key dimensions of socio-economic development over time. Figure 3 thus illustrates the dynamic development of the same socio-economic indicators for the years 1960, 1970, and 1980. In examining these figures, and the results of all analyses - including this one - which use existing socio-economic indicators, one must be aware of the caveat that the existing social accounting data do not contain adequate and appropriate data on the distributional and access characteristics of social development and that existing data sometimes are statistically or definitionally weak, provide inadequate coverage, are redundant, non-monotonic or inappropriate either for measuring development in the poorest or in the most developed countries, and particularly so when the data in question are for early periods or for the LDCs. But these are also the data upon which policy discussions are based and policy decisions made. And they therefore demand our attention.

Figure 3 shows clearly that the African LDCs have made only limited progress in improving the level of social development, when the latter is measured by indicators such as life expectancy and infant mortality which are proxies for the output of the social system; and on literacy they suffered a clear setback in the middle of the period. But it also shows that the growth in social inputs in the education, communication and information, and health care dimensions was markedly greater than in the social outputs. While data for the most developed countries show a similar tendency, there the explanation can be hypothesized to lie in biological and environmental constraints or distributional bottlenecks - or simply to lie in methodological shortcomings of the indicators employed (UNIDO 1984b). In the case of the least developed countries, the key factor would appear to be the all-pervasive

Figure 3: SOCIAL DEVELOPMENT IN THE AFRICAN LDCs: 1960, 1970, 1980



Notes and Sources: See Tables 1 and 5.



impact of malnutrition, which the data on calorie supply - protein supply data, would illustrate even more strongly - on Figure 3 suggests has not improved at all over the entire two decades<sup>4/</sup>, compounded by problems of indicator availability and methodology.

Global Socio-economic Development, 1960-1980

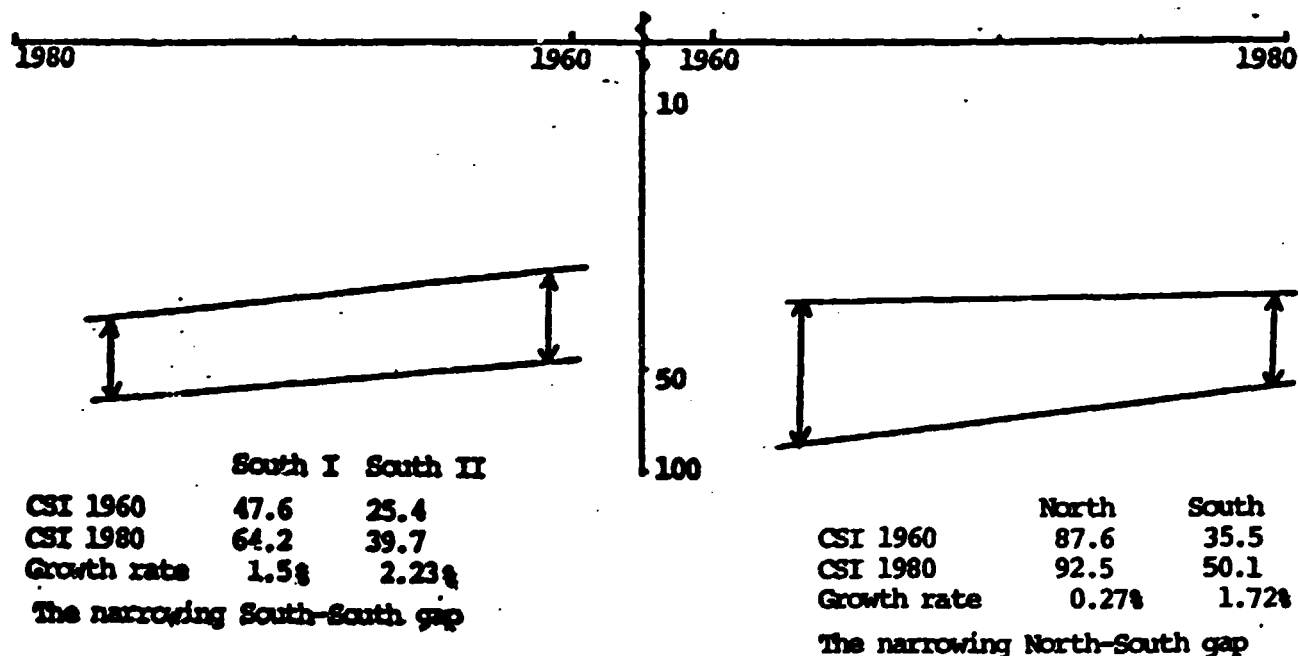
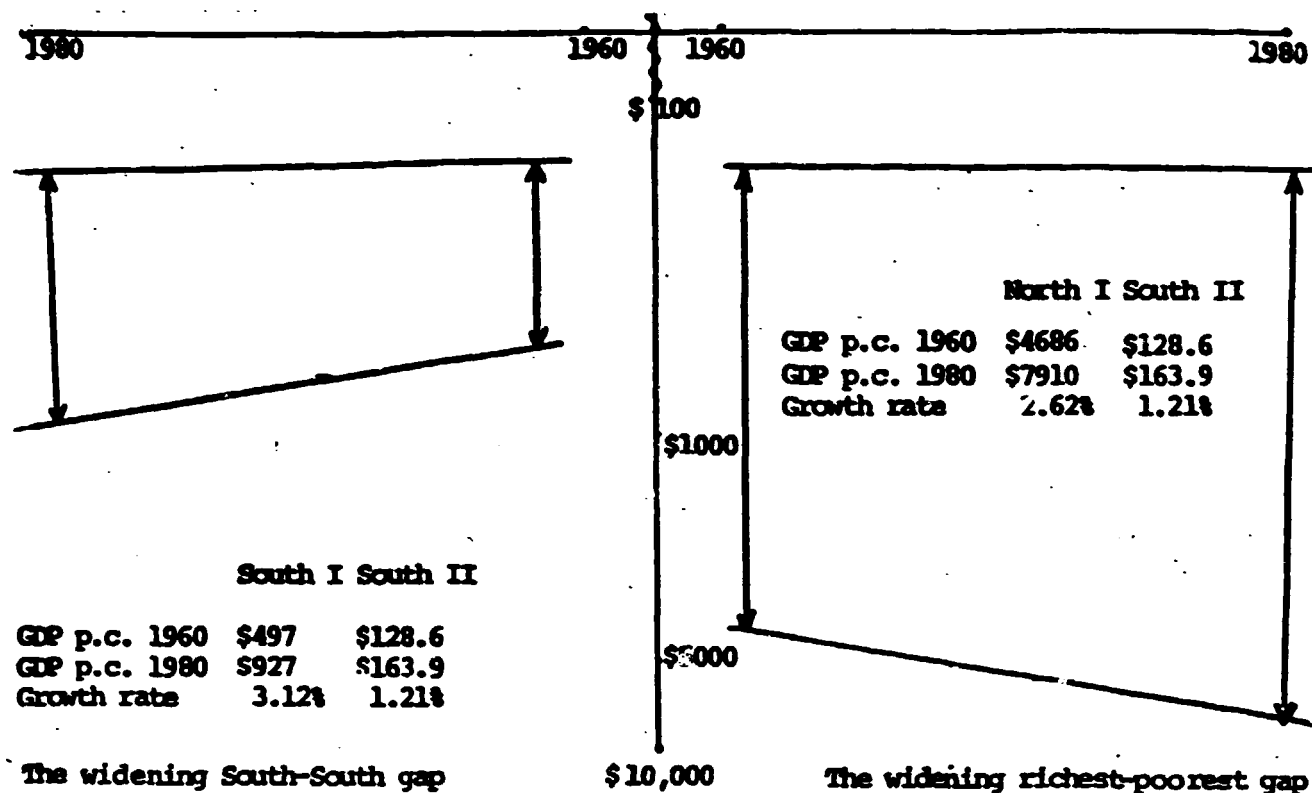
On the basis of a sample of some 54 countries - chosen with the stipulation that both the North and the South be represented proportionately and that the data used were comparable, reliable and complete in the five socio-economic result indicators life expectancy, literacy, infant mortality, GDP per capita, and MVA per capita - a number of conclusions can be drawn concerning social and economic development in the developing countries over the period 1960-1980 (see Figure 4 and Table 3). These are presented in this section, and the next examines the extent to which they also hold for the African LDCs. In the economic area two very distinct processes can be identified:

- the widening richest-poorest gap: the absolute differences, measured in average GDP per capita figures for the richest and poorest regions of the world, increased from a ratio of 36:1 in 1960 to 48:1 in 1980; and
- the increasing South-South gap: the differential between the average GDP per capita figures for the countries of Latin America, South-East Asia, and North Africa plus the Middle East (Group I) and those in South Asia and Sub-Saharan Africa (Group II) within the South increased from 4:1 in 1960 to 6:1 in 1980.

While the economic growth in the North and the South, then, exhibited a clear tendency to become ever greater over the two decades, social processes displayed a somewhat different picture:

- the closing North-South gap: the global social development gap narrowed over the two decades and the social world in 1980, judged on the basis of the three result indicators, was more homogenous than it had been in 1960. This point is further substantiated by the considerable decreases in the variation coefficients for the three social result indicators over the period; and

FIGURE 4: GAPS IN SOCIAL AND ECONOMIC DEVELOPMENT, 1960-1980



Specific Note: GDP is measured in constant 1975 dollars and growth rates are average annual compound growth rates. North I is composed of the six richest northern sample countries in 1960, measured in GDP per capita, and North II consists of the seven remaining northern sample states. For South I and South II see text. CSI is a 'combined social indicator', defined as population weighted averages of literacy and life expectancy:  $CSI_i = \frac{LIFE + LIT}{2} \cdot w_i$  (both indicators standardized from 0 to 100). The figures are based on a sample of 54 countries (see text).

Source: See Table 1.

- the persisting South-South gap: these rapid social increases, however, did not bring about a parallel reduction in the absolute discrepancy within the South - e.g., between Latin America, South-East Asia, and North Africa plus the Middle East on the one hand, and South Asia and Sub-Saharan Africa on the other. The actual marginal reduction that did occur (illustrated on Figure 4), resulted in spite of the fact that rates of social growth were appreciably higher in Group II than in Group I.

All of these results show clearly the way in which the poorest countries are losing ground economically relative to the rest of the South, and reinforce the conclusions from the earlier discussion of restructuring and social development on the failure of previous industrialization policies in the poorest countries of the South to generate meaningful economic development. One is, however, gratified to see the relatively higher MVA per capita results - but it must be born in mind that the low initial levels in almost all countries make relatively higher growth rates easier to attain. Here note must also be taken of the steady increase in the variance coefficient for both GDP per capita and MVA per capita in the Group II countries - a reflection of the fact that even among the poorest, the poorer are getting poorer. Finally, it must be remarked that the single most important determinant of this low economic performance is the sustained high population growth that frustrates all efforts at economic development and which simply must be attacked.

Within the single exception of the increase in adult literacy that resulted from the marked expansion of education at all levels over the 1960s the relative performance of the poorer Southern countries of Sub-Saharan Africa and South Asia was even worse in the social field (as measured by the three result indicators on Table 3) over the two decades. (The better off countries of the South performed worse on all the indicators in both sub-periods.) The fact that there was a reduction in the North-South discrepancy at all, then, was at least partly the result of several limits due to some, as yet undefined, combination of biological and environmental constraints and distributional bottlenecks (Thurow 1987, Hirsch 1980) acting on the Northern social development as well as the fact that the indicators generally available for measuring social development fail to reflect the qualitative aspects that become increasingly important at higher levels of development.

**Table 3: MEANS, VARIATION COEFFICIENTS AND GROWTH RATES FOR GROUP I AND GROUP II COUNTRIES FOR SOCIAL AND ECONOMIC INDICATORS**

	1960		1970			1980			
	Mean	Variation coefficient	Mean	Variation coefficient	Average Growth rate 1960-1970	Mean	Variation coefficient	Average Growth rate 1960-1980	Average Growth rate 1970-1980
<b>Life expectancy</b>									
Group I	48.0	63.2	54.3	58.0	1.23	60.3	49.2	1.14	1.05
Group II	41.3	33.6	46.5	34.8	1.19	51.1	46.5	1.06	0.94
<b>Literacy</b>									
Group I	52.1	149.7	64.1	121.7	2.07	72.5	100.9	1.65	1.23
Group II	23.6	234.5	32.3	231.4	3.14	35.9	241.1	2.10	1.06
<b>Infant mortality</b>									
Group I	123.2	147.3	97.6	169.0	-2.33	73.4	176.3	-2.59	-2.85
Group II	142.2	64.0	138.7	51.1	-0.25	125.4	89.4	-0.63	-1.01
<b>GDP per capita</b>									
Group I	497.0	349.7	685.9	395.6	3.22	926.8	354.5	3.12	3.01
Group II	128.6	223.2	146.2	264.0	1.28	163.9	327.7	1.21	1.14
<b>NVA per capita</b>									
Group I	89.6	472.1	141.1	518.9	4.54	218.0	467.8	4.45	4.35
Group II	16.1	188.5	21.8	282.7	3.03	27.9	383.9	2.75	2.47

**Specific Note:** Group I - Latin America, South-East Asia, North Africa and the Middle East.

Group II - South Asia and Sub-Saharan Africa.

The data are drawn from a sample of 54 countries (see text).

Sources: See Table 1.

Socio-economic Development in the African LDCs

From their very definition and designation, the level of social and economic development in the African LDCs is very low, and the data for 1980 clearly demonstrate this. For the question of the pattern of changes in the welfare of the population the relevant figures are growth rates in per capita terms of key result indicators, and such data (on Table 4) give rise to concern: for the period 1960-1973 eight countries had negative growth rates in per capita GDP, in 1974-1979 ten, and 1980-1982 fourteen (though not always the same countries of course); and the average growth rate fell to -2.9 in 1980-1982. And the figures for MVA - where the very low initial levels make decreases more difficult - were even worse in 1974-1979, when the growth rate of MVA per capita fell in every one of the 24 countries for which Table 5 gives data and was negative in eleven countries, and on average for all African LDCs. One cause of this slow-down in the manufacturing sector was the foreign exchange shortages and the resultant necessity to sometimes divert foreign exchange from fuel, spare parts, and raw material imports to imports such as medicines and food.

Combining the low overall level of the standard of living and the high frequency of negative (and generally decreasing) growth rates in per capita GDP and MVA with the World Bank forecast cited earlier of no growth in per capita income over 1985-1995 even in their high growth scenario for Sub-Saharan Africa (and therefore certainly also for the African LDCs), then the picture that emerges is of the prospect of continued poverty, the impossibility of carrying out any positive and active policy of structural change, and the absence of any economic structure upon which to build a modern economy. And consequently the continuing impossibility for the policy makers in the African LDCs to devote resources to the provision of inputs to social development in anything like adequate amounts. More importantly, this implies the actual failure of the citizens in a majority of the African LDCs to enjoy any increase in their economic standard of living for more than a whole generation. The consequential socio-economic and socio-political implications are clear.

While the country coverage of the data is more incomplete than in the case of economic variables, and while data for the post-1980 period for literacy are not available in the standard international statistical compendia, the

Table 4: GROWTH RATES OF KEY ECONOMIC AND SOCIAL INDICATORS FOR THE AFRICAN LDCs,  
1960-1980.

	GROWTH RATES (average annual percentage change)										
	GDP per capita			MVA per capita			Life expectancy			Literacy	
	1960-73	1974-79	1980-82*	1960-73	1974-79	1980-82	1960-75	1975-80	1980-82	1960-75	1975-80
Benin	0.57	-2.92	1.52	4.90	-11.06	1.55	0.69	2.77	1.05	2.15	20.55
Botswana	6.84	7.99	3.48	2.32	1.00	4.92	1.67	1.68	9.12	-2.22	-
Burkina Faso	0.61	1.23	2.40	7.16	2.05	6.71	1.41	0.52	6.03	-2.22	0.00
Burundi	-3.23	3.39	-1.43	5.80	2.46	1.51	1.19	0.98	5.62	-2.22	20.11
Cape Verde	2.87	1.63	6.25	4.20	0.13	4.49	-	-	0	-	-
Central African Republic	-0.10	-0.04	-11.36	5.01	0.82	-8.59	1.06	1.42	4.35	11.23	-14.91
Chad	-2.79	-0.49	-12.39	2.83	-3.76	-19.86	0.84	1.53	3.53	-	0.00
Comoros	2.42	-6.98	-3.87	9.47	-11.53	7.71	-	-	1.05	-	-
Djibouti	-	-	3.68	-	-	-	-	-	-	-	-
Equatorial Guinea	-0.60	-20.83	-11.57	3.12	-21.17	5.27	-	-	-	-	-
Ethiopia	1.12	0.85	0.48	4.67	2.09	1.21	1.51	-0.97	-6.53	-	8.45
Gambia	1.98	-5.09	-0.75	7.02	-12.62	3.14	1.35	-0.93	-7.71	-	-
Guinea	-0.99	0.38	1.68	2.25	0.23	0.93	2.82	1.88	-8.45	1.69	17.32
Guinea-Bissau	3.41	0.35	5.70	6.49	3.15	10.35	-	2.02	-5.00	-	-
Lesotho	4.45	2.19	0.03	-	0.29	9.59	1.21	0.43	1.92	-	-2.64
Malawi	3.86	3.42	-0.87	12.15	4.28	0.74	1.38	4.66	0	-	0.00
Mali	-1.91	2.58	4.23	3.89	1.08	3.61	0.61	2.50	2.27	4.73	0.00
Niger	0.49	4.67	-8.26	5.06	2.62	-4.14	0.38	2.50	2.27	3.18	16.27
Rwanda	1.12	2.67	-0.44	13.98	3.53	8.60	0.87	1.88	1.10	5.71	16.80
Sao Tomé and Príncipe	-	-	2.87	-	-	-	-	-	-	-	-
Sierra Leone	3.17	-1.5	6.09	4.12	-2.08	5.46	1.35	1.33	-10.63	5.21	0.00
Somalia	-0.04	-3.69	-2.72	9.85	-3.82	4.81	1.04	1.42	-6.03	23.94	3.71
Sudan	-1.08	1.21	-0.67	5.39	-3.14	1.76	1.45	-2.04	1.08	11.33	9.86
Tanzania	3.06	1.26	-6.85	8.54	-1.11	-23.10	1.22	3.40	0	9.46	3.66
Togo	3.79	-5.82	-2.88	10.14	-9.23	7.45	1.36	2.77	0	9.46	3.66
Uganda	0.80	-3.43	7.13	1.77	-9.83	-1.17	1.09	1.55	-6.94	-	-
Weighted Average	0.73	0.53	-2.86	5.80	-1.13	0.84	1.27	0.95	-1.63	6.82	7.04

Specific Note: \* GNP per capita

Sources: See Table 1.

social result indicators on Table 4 demonstrate a notably more positive development, though the crisis period of the beginning 1980s witnessed a fall in life expectancy in a third of the countries for which there are data.

But the primary influences causing this fall were not the external factors such as high interest rates, lower demand in Northern export markets, or higher protectionism that were critical in other developing countries, but rather predominantly internal factors - and most importantly the simple lack of food. The fact that all those countries which experienced falls in the literacy rate over 1960-1975 and 1975-1980 were different from those where life expectancy fell further suggests that the causal influences lie in factors specific to individual countries rather than in some more general pattern of economic-social causal linkage.

Indeed, in countries with the common afflictions of extreme poverty, minimal industrialization, very limited human capital, and extremely limited technological capacity, it is unclear to what extent a close linkage between growth in GDP or MVA and meaningful overall development should even be expected, with the reasons for this including the problems in actually measuring the phenomenon in question accurately, the fact that the very low levels of all variables concerned are below that where significant trade-offs can begin to take place and be manifest, insufficient time to allow the hypothesized time lags to take place, as well as the earlier mentioned failures in domestic policy and strategy formulation (including the fact that the structure of imports "has shifted increasingly towards survival and away from development" (Weiss and Jennings 1983, 344)), the inability to attract foreign resources, and an extreme vulnerability to both external and internal shocks and uncertainty.

Examining the African least developed countries in the context of Sub-Saharan Africa and of North Africa plus the Middle East, as well as of the South as a whole, gives four groups of results which merit particular attention. First, the variation coefficients of Table 5 demonstrate a distinctive hierarchy in the variation of the four social sub-systems - the four dimensions communications, health, education, and nutrition - for the African LDCs that is identical to that for the South as a whole. Excluding housing, for which no comprehensive and reliable set of data - including those on access to safe water - exists, the aggregate picture that emerges is shown on Table 6.



Table 5: WEIGHTED AVERAGES AND VARIATION COEFFICIENTS OF SOCIAL AND ECONOMIC INDICATORS IN 1980

Indicator	Weighted Averages				Variation Coefficients			
	South	North Africa + Middle East	Sub-Saharan Africa	African IDCs	South	North Africa + Middle East	Sub-Saharan Africa	African IDCs
Life expectancy	57.5	56.0	47.4	95.6	77.1	35.9	29.6	28.1
Literacy	56.0	41.0	40.1	32.3	227.2	111.6	155.4	182.4
Infant mortality	88.8	91.4	127.1	137.2	245.8	85.8	69.4	50.9
Calories	2312	2584.0	2210.0	2010.0	90.7	57.2	46.4	38.6
Protein	58.3	72.2	51.4	56.2	128.9	53.0	58.2	46.3
Physicians	4.3	5.1	0.6	0.5	837.0	276.7	168.0	185.6
Nurses	5.3	7.3	4.8	3.7	593.6	300.4	275.8	155.1
Hospital beds	1.7	1.8	1.5	1.2	489.3	159.3	228.2	209.0
Primary education	95.1	85.2	78.8	53.4	144.1	92.9	117.5	133.3
Secondary education	31.4	39.2	14.6	10.8	269.4	159.0	408.9	192.4
Newsprint	1.3	0.6	0.3	0.07	835.8	654.9	452.2	233.4
Radios	71.0	114.0	64.0	43.1	853.5	198.6	402.5	320.7
Telephones	1.5	2.2	1.3	1.1	1316.8	346.8	341.9	345.3
Safe Water	39.2	61.0	22.7	24.1	271.5	109.9	146.9	186.2
GDP p.c.	424.0	1203.0	351.0	183.7	919.5	542.7	217.2	114.6
MVA p.c.	139.0	126.0	30.0	15.2	531.8	536.5	267.4	118.7

Note: The units for the indicators are: life expectancy, years; literacy, percentage; infant mortality, per 1000 live births; calories, calories per person per day; protein grams per person per day; physicians per 10,000; nurses per 10,000; hospital beds per 1000; primary education, percentage; secondary education, percentage; newsprint, consumption per 1000; radios, per 1000; telephones, per 100; safe water, percentage of dwellings; GDP, per capita in 1975\$; and MVA, per capita in 1975\$. For more detailed notes see UNIDO (1984b).

Sources: See Table 1.

Table 6: AVERAGE VARIATION COEFFICIENTS FOR THE AFRICAN LDCs

Social Dimensions	1960	1970	1980
Communication	155	246	300
Health	125	173	183
Education	126	128	163
Nutrition	27	29	42

Sources: See Table 1.

Since the differences in the variation among the four social systems are remarkably high and, moreover, stable over time, it can be assumed that these four dimensions are characterized by different substitution patterns and assembly possibilities. This, in turn, would suggest that, at least for social systems like health and communication, any degree of economic development can be accompanied by an equivalent multiplicity of diverging social performance levels. This reflects the earlier argument concerning the diverse strategies and policies of socio-economic development - and the different efficiency of enacting the same strategy and policy - that characterizes the African LDCs. The very low coefficient for nutrition is, moreover, another reflection of the fairly universal malnutrition earlier cited as a very effective constraint on development policy.

Secondly, a comparison of the values for the result indicators with those for input indicators for the three groupings of African countries produces varied results related to the efficiency of the transformation of inputs into output in the social sphere. For the countries of North Africa and the Middle East the average values of all three result indicators were below the average for the South, whereas the values for 9 of the 11 input indicators presented on the table for the region are above the averages for the South as a whole. This is a result that can interestingly be compared with one obtained for the newly industrializing countries (Wiedemann and Müller 1984), where this group of countries exceeded global averages in 1980 for all three result indicators, while they had lower than world-wide averages for the level

of social inputs for 10 of the 11 input indicators. Both of these results can be explained in terms of the formulation of socio-economic production functions as introduced in a small simultaneous equation model developed to investigate the simultaneous element in socio-economic interaction.

In this equation set social result indicators (SR) are considered a function of social inputs (SI), economic result variables (ER), and structural and institutional constraint or incentive variables (ES) which reflect some vital aspects of a country's overall economic structure. I.e.,

$$SR = f (SI, ER, ES).$$

Since both the economic result indicators and structural variables are considerably higher for the NICs group than in the Southern bloc in general, the co-existence of higher than average result and below average input indicators might thus be accounted for by positive 'spill-over effects' of the industrialization process. Correspondingly, the result for the North African plus Middle East group suggests that certain preconditions in the nature of the economic (and/or institutional) structure of these countries may not have been sufficiently present to allow these positive externalities to manifest themselves or take root. The result may also simply reflect the static nature of Table 5.

For both Sub-Saharan Africa and the African LDCs, the average value of both the result indicators and input indicators are, as expected generally below the Southern average. But not only are the average values for the LDCs relatively lower than those for Sub-Saharan Africa, but the input indicators are also in general considerably much lower. This is consistent with the extension of the NICs and North Africa plus Middle East result on the importance of the level and quality of the economic and institutional structure of the economy as a determinant of the efficiency of operation of the social system to include Sub-Saharan Africa and the African LDCs. I.e., the level of industrialization and the degree of structural development in the African LDCs appears to be too low for economic development to have (yet had) a meaningful impact on social development.

Thirdly, it was earlier seen, in examining Figure 3, how the social result indicators (and especially life expectancy and infant mortality) had only grown very moderately over the previous two decades. In examining Table 7, however, it becomes clear that these rates of improvement, while low, are still much higher than those attained for GDP per capita. This can also be seen to be true for most of the input indicators as well. But from Table 8 it can be seen to be relatively less true for Sub-Saharan Africa as a whole and, for North Africa plus the Middle East it only holds for literacy.

On the surface this again casts doubt on the strength of economic impulses to social development in the African least developed countries and suggests that the most remarkable thing is perhaps that the social situation was not impaled on the failed economic development. But again, there may be a serious problem in indicator methodology, this time on the economic side, due to the problems inherent in capturing the activity of the subsistence sector in traditional national accounts measures. On the social side, the data on literacy as well as primary and secondary education suggest that there was a potential positive impetus in the area of human resource, human capital, and manpower development that served as an engine of economic growth and to have fostered economic development. The figures on Table 7 further suggest that the impact of improvement in education that took place in the 1960s showed up particularly in the literacy rate of the population over the period 1970-1980 - but during this period the level of MVA per capita fell by 0.82 per cent.

Meaningful insight into the real nature of this socio-economic interaction requires an examination of the dynamic interaction; but a first exploration showed no statistically significant correlation when the impact of social indicators on economic ones was lagged 5, 10, 15 and even 20 years, nor did it when the impact of the economic system on the social one was similarly lagged. Indeed, the preliminary results even suggested a negative correlation between life expectancy and GDP per capita. Since similar exploration for the South as a whole, as well as for the more developed countries within the South, had revealed a pattern of significant correlations, these first correlations results underscore the earlier arguments as to the weakness (or absence) of positive social and economic linkages within the African LDCs and the apparent ineffectiveness of economic policy. It further suggests that the more important determinants of the relative level of social development may lie in the presence or absence of third variables such as the initial

**Table 7: WEIGHTED AVERAGES AND VARIATION COEFFICIENTS FOR SOCIAL INDICATORS IN THE AFRICAN LDCs: 1960, 1970, 1980**

	1960		1970			1980			
	Average	Variation Coefficient	Average	Variation Coefficient	Growth Rate 1960 - 1970	Average	Variation Coefficient	Growth Rate 1970-1980	Growth Rate 1960-1980
Life expectancy	35.8	21.2	40.2	18.2	1.16	45.6	28.1	1.26	1.21
Literacy	20.5	173.4	17.0	185.6	-1.87	32.3	182.4	6.42	2.27
Infant mortality	163.7	31.1	158.6	51.7	-0.32	137.2	59.9	-1.45	-0.88
Calories	1992.2	18.2	2080.1	21.3	0.43	2010.0	38.6	-0.34	0.04
Protein	57.1	35.7	59.6	37.4	0.43	56.2	46.3	-0.59	-0.08
Physicians	0.3	160.3	0.4	193.0	3.42	0.5	185.6	2.94	3.18
Nurses	2.1	89.3	2.4	189.3	1.31	3.7	155.1	4.24	2.78
Hospital beds	1.0	126.4	1.0	135.5	0.69	1.2	209.0	1.50	1.10
Primary education	23.1	152.5	31.7	119.9	3.16	53.4	133.3	5.21	4.19
Secondary education	1.7	99.4	4.5	135.3	9.37	10.8	192.4	8.75	9.24
Newsprint	-	-	0.09	215.7	-	0.08	233.4	-1.18	-
Radios	7.4	160.1	24.4	238.0	11.93	43.1	320.7	5.69	8.81
Telephones	-	-	0.3	283.4	-	1.1	345.3	14.15	-
Safe water	-	-	15.2	162.7	-	24.1	186.2	4.61	-
GDP p.c.	167.5	107.0	180.0	102.5	0.72	183.7	114.6	0.20	0.46
MVA p.c.	9.5	133.6	16.5	121.7	5.52	15.2	118.7	-0.82	2.35

Sources: See Table 1.

Note: Averages and variabilities are not always exactly comparable between years, since for several indicators data were not available for all countries for a given year, and data were not always available for the same countries for all years.

**Table 8: WEIGHTED AVERAGES, VARIATION COEFFICIENTS, AND AVERAGE GROWTH RATES FOR SOCIAL AND ECONOMIC RESULT INDICATORS, 1960, 1970, 1980**

		1960		1970	
		Average	Variation Coefficient	Average	Variation Coefficient
Life Expectancy	South	43.2	73.9	53.5	79.5
	N.A. + M.E.	43.0	24.4	49.6	26.0
	S.-S. Africa	36.7	21.3	40.3	20.4
	Af. LDCs	35.8	21.2	40.2	18.2
Literacy	South	36.3	234.1	43.7	241.9
	N.A. + M.E.	16.6	155.9	29.7	139.1
	S.-S. Africa	19.9	121.2	17.7	159.3
	Af. LDCs	20.5	173.4	17.0	185.6
Infant Mortality	South	125.6	115.7	123.7	144.2
	N.A. + M.E.	151.5	119.5	125.1	61.4
	S.-S. Africa	155.1	46.7	158.4	47.2
	Af. LDCs	163.7	31.7	158.6	51.7
GDP per capita	South	312.8	628.1	425.4	685.1
	N.A. + M.E.	568.3	766.6	955.2	624.0
	S.-S. Africa	262.6	134.6	311.0	153.8
	Af. LDCs	167.5	107.0	180.0	102.5
MFA per capita	South	46.2	560.6	73.8	633.5
	N.A. + M.E.	43.7	295.2	72.0	299.3
	S.-S. Africa	14.6	209.5	26.2	217.7
	Af. LDCs	9.5	133.6	16.5	121.7

Note: N.A. + M.E. = North Africa and Middle East region.

S.-S. Africa = Sub-Saharan Africa

Sources: See-Table 1.

Average Growth rate 1960 - 1970	1980			
	Average	Variation Coefficient	Average Growth rate 1970-1980 1960-1980	
2.16	57.5	77.1	0.72	1.44
1.43	56.0	34.8	1.23	1.32
0.94	47.3	29.9	1.60	1.27
1.16	45.6	28.1	1.26	1.21
-1.87	56.0	227.2	-3.26	2.19
3.33	41.0	111.4	3.22	4.52
-1.17	39.8	156.4	8.10	3.47
-1.87	32.3	182.4	6.42	2.27
-0.15	99.8	245.8	-3.26	1.71
-1.91	105.9	82.5	-1.67	-1.79
0.21	126.9	70.3	-2.22	-1.00
-0.32	137.2	59.9	-1.45	-0.88
3.12	561.6	654.7	2.82	2.97
5.19	1203.0	542.7	2.31	3.75
1.69	351.0	217.2	1.21	1.45
0.72	183.7	114.6	0.20	0.46
4.80	139.0	531.8	6.54	5.67
4.99	126.0	310.7	5.60	5.29
5.85	30.0	267.4	1.35	3.60
5.52	15.2	118.7	-0.82	2.35

conditions present at independence (i.e., the nature of the colonial period), the specific orientation of government policy (i.e., an extreme socialist - or market - orientation), or simply the weather (i.e., drought).

Looking to the future, these very low growth rates in GDP - which resulted despite a markedly higher growth in MVA - could result in continued high and increasing unemployment which would pose a danger of overwhelming the social and political institutions of the African LDCs. This in turn gives rise to worries such as that of the World Bank (1984, 7) as to whether the existing fragile administrative systems will be able, under these conditions, to maintain the health, education, housing and nutrition programmes fundamental to any type of social progress in these countries.



Conclusion

As pointed out above, many delegations from the developing countries at the recent UNIDO IV Conference argued that they must put their own house in order if they are to be able to have an industrial policy that amounts to more than simply "forced structural disadjustment" or "adjustment through passive response"; and the World Bank concluded in their most recent World Development Report that, "of the policy failings that contributed to slow growth in other developing countries, all can be found in more or less chronic form in many African countries" (1984, 2). Moreover, the cost of the current inadequate levels of social investment are cumulative, and neglect or inadequate attention today makes the task more difficult later. Because of the long lead time involved in developing socio-economic infrastructure, inaction today forecloses options tomorrow, and sometimes makes even more drastic steps in the future necessary.

But the African LDCs cannot develop their industrial structure alone, and they drastically need both the assistance of the international organizations and concessionary assistance from the richer countries. Industrial finance and investment based on purely classical terms is simply inadequate both because of the high risk factor that the private sector imputes to the investment, as well as because of the scarce endowment of complementary technological, human, physical, energy, and other - at least in a presently exploitable form - natural resources. It is also necessary to work to overcome the neglect which these countries have suffered at the hands of the private international sector - a neglect that is both a cause and effect of being least developed, and which has led to a situation where many of the African LDCs receive no net private capital inflows, and some are actually experiencing net outflows of capital (Lisk 1983).

It is generally agreed that the policies and strategies towards the external and internal sectors that the African countries should carry out require a strong element of "indigenization" (Adedeji 1981); but at the same time they must encompass, for example, both domestic and foreign inputs, both external and internal market orientation, both North-South and South-South trade and financial co-operation and assistance, and both industrial and agricultural priorities. It is crucially important that domestic policy makers integrate these different elements and create conditions for a

harmonious co-existence and interaction of the different parts of the development process in a reinforcing and dynamic relationship, since otherwise the negative characteristics resulting from small domestic markets, inefficiency in management, scarce basic industrial inputs, and foreign exchange difficulties will overwhelm the positive impacts of development policy, and the sum of the individual parts will fail to make a meaningful contribution to ameliorating the low level of social development presently characterizing these countries.

Two final, interrelated points regarding structural transformation through industrialization and social development in the African LDCs must be noted. The first is that the potential industrialization efforts of the LDCs in Africa exhibit very marked opportunities for strengthened co-operation among the developing countries in the field of industrialization - including co-operation at the micro level between small- and medium-sized enterprises and Southern multinationals - as a complement to North-South co-operation. Allied to this is the point that the majority of the resource inputs - human, natural and mineral, and even energy - required for socio-economic development are present, not only within the South, but within Africa itself. Which means that the external constraints that have rightly been seen as a barrier to industrialization in the LDCs must not, under enlightened policies and strategies of economic co-operation in socio-economic development, necessary impede the social development of the African LDCs to the extent often assumed.

Notes

- 1/ In this paper the term Africa is used for developing Africa, and excludes the Republic of South Africa.
- 2/ This section draws on on-going work within UNIDO on the role of the least developed countries in the international industrial restructuring process.
- 3/ The implications of the post-1973 development revolution for policy formulation in the developing countries is elaborated in more detail in the forthcoming paper (UNIDO 1984e).
- 4/ It has been estimated that at the end of 1980 food production per capita in Africa had declined by about 20 per cent on the situation at the beginning of the 1960s (Lisk 1983, 5).

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