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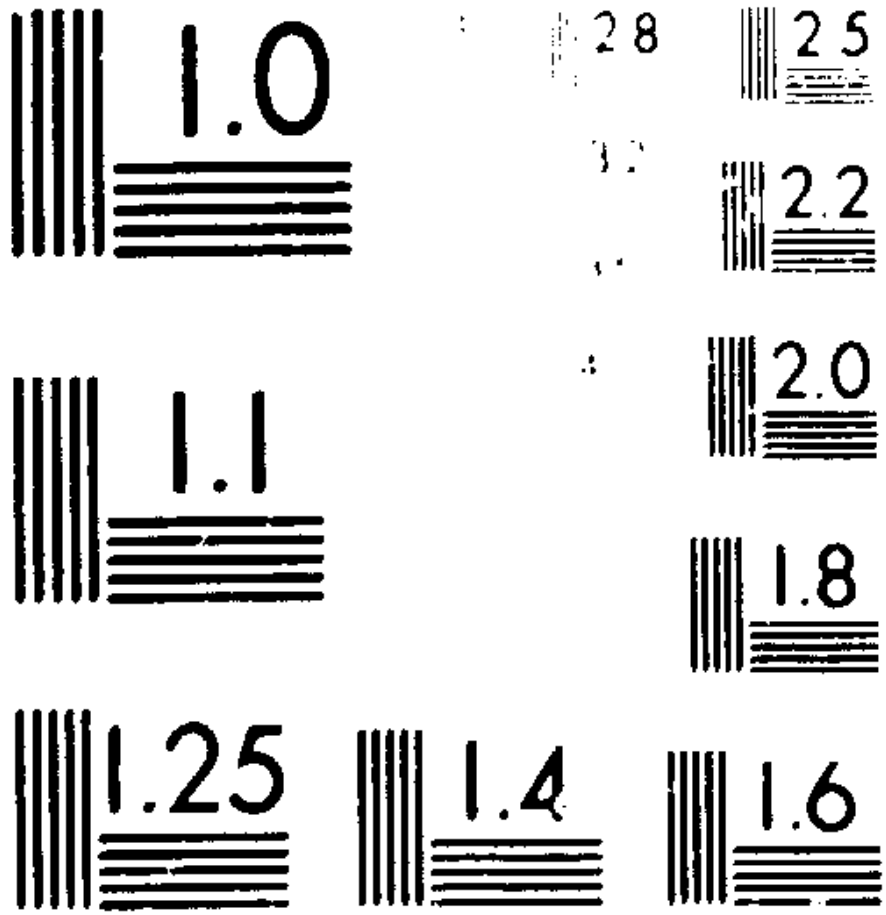
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A STRATEGY OF INDUSTRIAL DEVELOPMENT FOR THE SMALL RESOURCE-POOR LEAST DEVELOPED COUNTRIES (LDCs)*

Prepared by

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Division for Industrial Studies

Special Studies in Industrialization

Working Papers

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SECTION 1 : INTRODUCTION

It is painfully true. The least developed countries (LDCs) have been long neglected to the point that their life borders on a sheer struggle for subsistence. Helping the Third World and LDCs in particular head off disaster is not just a humanitarian ideal but a matter of reality, and "a programme of survival" for mankind as put forward eloquently by the Brand Commission[3] .

Despite the diversity and heterogeneity of the LDCs in terms of their different approaches to development, different degree of openness, and resource endowments, they all share a common grim reality. They teeter precariously between subsistence and disaster. Their fragile economies are continuously buffeted with dangerous currents of gyrating international market forces which are beyond their control. Their growth performance has steadily deteriorated and the flows of external resources from the international community have been progressively eroded by callous apathy, worldwide inflation, and unfavourable terms of trade in the 1970s. Their prospects loom even grimmer, unless urgent measures are taken now to arrest this drift toward calamity.

This paper sets out to search a viable strategy of industrial development for small LDCs. The geographical focus is on Africa where a predominant number of the LDC groups is concentrated. Furthermore, the study concentrated its attention on a subgroup of the LDCs which is characterized by relatively poor resource endowments and small population, say less than 7 million, and analyze many of the shared problems and choices encountered by these countries in their drive toward industrialization.

Our concentration on small LDCs does not purport to exclude the problems of large LDCs from the domain of our preoccupation. Indeed, they are equally serious. Yet our selectivity arises not from the relative importance of their problems but from a methodological necessity to distinguish between small and larger LDCs based on the size of potential domestic markets which will in turn circumscribe different development options and different industrialization strategies.

Undoubtedly, LDCs are still at the embryonic stages of development and the problems of industrialization confronting them are particularly pressing and formidable. Only recently, the international community has begun to recognize fully the staggering magnitude of the problems facing the LDCs and has decided to make special efforts to solve them. In particular, at its thirty-fifth session, the UN General Assembly has formally declared the problems of the LDCs as an essential priority within the New International Development Strategy (NIDS) for the Third United Nations Decade and had adopted a special programme of action for the 1980s.[1/] In parallel to the prominent attention given to the LDC problems in the NIDS, UNIDO has been making equally energetic efforts to confront the LDC problems in the context of industrialization with a sense of urgency and these efforts have resulted in the formulation of a programme of special measures for the LDCs in the New Delhi Conference and the programme was subsequently reaffirmed by the Industrial Development Board at its fourteenth session.[2/]

The LDCs as a whole are economically weakest and poorest countries among developing countries (DCs) with the most formidable structural problems. The fragility of their economies manifests itself in low incomes, low productivity, scarce skills, weak technological capacity and know-how, and virtual non-existence of physical and institutional infrastructure. Despite the fact that the small LDCs share their common problems and issues with their large counterparts in many respects at the early stages of industrialization, one fundamental difference between the two groups, namely the size of a country, becomes critically important in mapping out a viable strategy of industrial development at the early stages of industrialization and may call for a different analytical framework for each group. This is because industrial development options open to large LDCs on account of the small size of their domestic market and consequent limited opportunities for exploiting economies of scale.

1/ Paragraphs, 136-146, International Development Strategy for the Third United Nations Decade, thirty-fifth session, UN General Assembly, A/35/464 (23 October 1980)

2/ UNIDO, ID/B/C.3/100/Add.5 (22 August 1980)

The importance of making analytical distinction between large and small developing countries has been abundantly underscored in the literature of economic development in recent times. For instance, Kuznets [15, p.90] stressed the need for devising "variants of a theory of economic growth for the many small national units different from those for the few large ones". Demas [8, pp.39-42] echoes the same view that traditional theory of economic growth based on a large closed economy is not applicable to the problems of small DCs and hence it is important to "differentiate sharply between the growth process in a large closed economy and in a small open economy". Chenery and Taylor [6, p.395] noted that large countries tend to industrialize earlier than small ones because of economies of scale shifting their comparative advantage toward industry, although the importance of this effect may diminish as incomes rise, and it may be ultimately more than offset by greater exports of manufactured goods from small countries. Kessing and Sherk [11, p.961] underlined major advantages over small countries in manufacturing enjoyed by large countries and pinpointed size effects as a most important determinant in the case of capital goods industry.

In essence, there exists a strong theoretical and empirical validity for the methodological differentiations between small and large LDCs in formulating a viable strategy of industrialization, since large LDCs have a potentially large industrial market which may permit an inward-looking industrial development strategy, producing a broad range of manufactures predominantly for domestic markets, whereas small LDCs may have to rely more on international trade for their industrialization.

Small LDCs have many similar initial conditions and shared problems, although their policy response to such conditions and problems may vary appreciably from country to country. Table 1 provides a glimpse of some of the broad spectrum of socio-economic characteristics endemic to the small LDCs for selected countries in Africa. Basic indicators of a few small middle income and industrialized countries were also shown in the same table mainly to dramatize a glaring gap between these groups in many areas.

There are no generally agreed upon measures of country size. Different

population sizes and/or useable land areas have been used in previous studies.[3/] In this study the country size is measured in terms of population because of its implications for the size of the domestic market, and the mid-1978 population of 7 million was arbitrarily chosen as an upper limit for delimiting small countries.

As emphasized, LDCs are generally characterized as the poorest and the most vulnerable group with staggering problems of all kinds in the international community. Some of the statistics in Table 1 attest to this fact. The most obvious one is per capita income. GNP per capita in 1978 US dollars for a sample of the LDCs chosen ranges from $100 to $280. In stark contrast, GNP per capita for Hong Kong and Singapore, with a comparable population size, exceeds $3000 and they are more than ten-fold larger than the highest of the LDC sample. Per capita GNPs for Denmark and Switzerland, $9,920 and $12,100 respectively, appear astronomical as compared with those of the sample LDC group. Moreover, the past growth performance of these countries provides the most telling evidence of the severity of their problems. Despite their wretchedly low bases, average annual growth rate of GNP per capita for the period of 1960-78 has not risen above one per cent for most countries, except for Lesotho, and even declined in some cases. This stands in sharp contrast to the phenomenal growth of Hong Kong and Singapore, registering around 7 per cent per annum.

Sectoral shares of labour force and of GNP reveal the extent of structural imbalances in these countries. Being a predominantly agrarian society, agriculture claimed the lion's share of total labour force in 1960, exceeding 90 per cent in most cases and this dominance of agriculture as a major source of employment has changed little over time during the period of 1960-78. As a result, industry and services accounted for less than 10 per cent in both years with the exception of Benin. By sharp contrast, the sectoral distribution of total labour force in the selected middle income and industrialized countries is the obverse of the employment patterns prevailing in the LDCs. Industry and services dominate the labour force make-up with a relatively unimportant role assigned to agriculture, a phenomenon generally characteristic of an advanced stage of industrialization. The distribution of GDP follows a similar pattern but the share of GDP originating in agriculture substantially

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3/ See Kuznets[14], Demas[8], Kessing and Sherk

falls short of the corresponding employment share, thus reflecting the low productivity of agricultural sector.

It may be worth noting that the manufacturing share of GDP is still relatively small for the LDC group despite its steady increase over the period of 1960-78. Particularly, value added in manufacturing in 1976 for all these countries but Malawi, were all considerably below US$50 million in 1980 prices and their values of manufactured exports in 1977 were almost nil, amounting to less than $20 million in current prices in most cases with the exception of Guinea and Niger where exports exceeded slightly over $50 million. Perhaps, a proper sense of the order of magnitude may be gained by comparing these dismal figures with the successful performance of Hong Kong and Singapore which exported manufactured goods equal to $7,267 million and $3,626 million in 1977 respectively. These distressing statistics all vividly point to the very early stages of industrialization in which these countries have found themselves helpless to make a decisive break from this economic morass.

Other indicators are equally grim. Their economies have been caught in the throes of chronic investment-saving disequilibria and mounting trade imbalances for the last two decades. Net private investments in these countries during the 1970-78 period can be characterized, at best, as a mere trickle in comparison with those invested in other groups of countries. Net inflows of external capital have been considerably higher than private capital but its flows are far from being adequate.

The unavailability of productive human resources in general and skilled labour force coupled with highly trained managerial, technical and administrative manpower in particular are considered one of the most critical bottlenecks of industrialization. Extremely low adult literacy rates and short life expectancy as shown in table 1 are symptomatic of the glaring qualitative deficiency of human resources in these countries.

Against this backdrop of the most pressing and general deteriorating situations of the small LDCs, and given the current turbulent state of the world economy afflicted with stagflation, energy crisis, rising tidal waves of protectionism, and international monetary disequilibrium, the question arises, "what is a viable strategy of industrialization for these small LDCs, which will enable them to make a decisive break from their present

TABLE 1: SOME INDICATORS OF SELECTED SMALL LEAST DEVELOPED COUNTRIES (LDCs) IN AFRICA

Countries	Population (millions) Mid-1978	Average annual growth of population (%)		Area (Thousand Km^2)	GNP per capita		Distribution of GDP (%)							
					Dollars	Average annual growth (%)	Agriculture		Industry		(Manufacturing)[a]		Services	
		1960-70	1970-78		1978	1960-78	1960	1978	1960	1978	1960	1978	1960	1978
Selected LDCs														
Mali	6.2	2.4	2.5	1240	120	1.0	55	37	10	18	5	12	35	45
Somalia	3.7	2.4	2.3	638	130	-0.5	67	60	13	11	3	7	20	29
Brundi	4.5	2.4	2.0	28	140	2.2	--	56	--	15	--	9	---	29
Chad	4.3	1.8	2.2	1284	140	-1.0	55	52	12	13	5	8	33	35
Upper Volta	5.6	1.6	1.6	274	160	1.3	62	38	14	20	8	13	24	42
Malawi	5.7	2.8	2.9	118	180	2.9	58	43	11	19	6	12	31	38
Rwanda	4.5	2.6	2.9	26	180	1.4	81	46	7	22	1	15	12	32
Guinea	5.1	2.8	2.9	246	210	0.6	56	32	36	41	--	4	8	27
Niger	5.0	3.3	2.8	1267	220	-1.4	69	43	9	27	4	10	22	30
Benin	3.3	2.6	2.8	113	230	0.4	55	31	8	13	3	9	37	56
Central African Rep.	1.9	2.2	2.2	623	250	0.7	51	36	10	18	4	9	39	46
Lesotho	1.3	2.0	2.3	30	280	5.9	—	36	--	15	—	2	---	49
Selected middle-income and industrialized countries														
Hong Kong	4.6	2.5	1.9	1	3040	6.5	4	2	34	31	25	25	62	67
Singapore	2.3	2.4	1.5	1	3290	7.4	4	2	18	35	12	26	78	63
Denmark	5.1	0.7	0.4	43	9920	3.2	11	--	32	--	22	--	57	--
Switzerland	6.3	1.6	0.1	41	12100	2.2	--	--	--	--	---	--	---	--

a/ Manufacturing is a part of the industrial sector, but its share in GDP is shown separately.

SOURCE: World Bank, World Development Report 1980

BASIC INDICATORS OF SELECTED SMALL LEAST DEVELOPED COUNTRIES

Countries	Percentage of labour force in					
	Agriculture		Industry		Services	
	1960	1978	1960	1978	1960	1978
Selected LDCs						
Mali	94	88	3	6	3	6
Somalia	88	82	4	7	8	11
Burundi	90	85	3	5	7	10
Chad	95	86	2	6	3	8
Upper Volta	92	83	5	12	3	5
Malawi	92	86	3	5	5	9
Rwanda	95	91	1	2	4	7
Ginea	88	82	6	11	6	7
Niger	95	91	1	3	4	6
Benin	54	46	9	15	37	39
Central Africa Rep.	94	89	2	3	4	8
Lesotho	93	87	2	4	5	9
Selected middle-income and industrialised countries						
Hong Kong	8	3	52	57	40	40
Singapore	8	2	23	38	69	60
Denmark	18	8	37	37	45	55
Switzerland	12	6	50	47	38	47

SOURCE: World Development Report, 1980

(Table 1 cont.)

Average annual growth of labour force (%)		Adult literacy rate (%)	Life expectancy at birth (years)
1960-70	1970-80	1975	1978
2.0	2.2	10	42
1.7	2.3	60	43
1.9	1.6	25	45
1.5	2.0	15	43
1.2	1.4	5	42
2.3	2.4	25	46
2.2	2.5	23	46
2.4	2.2	--	43
3.0	2.6	8	42
2.0	2.2	11	46
1.7	1.6	--	46
1.6	1.9	55	50
3.1	3.0	90	72
2.7	2.7	75	70
1.1	0.6	99	74
1.9	0.4	99	74

BASIC INDICATORS OF SELECTED SMALL LEAST DEVELOPED COUNTRIES (Table 1 cont.)

Countries	Value added in manufacturing (millions of 1970 dollars)		Value of manufactured exports (millions of $)		Gross domestic investment as % of GDP		Gross domestic savings as % of GDP		Net inflow[a] of external capital (millions of $)		Net direct private investment (millions of $)	
	1970	1976	1963	1977	1960	1978	1960	1978	1970	1978	1970	1978
Selected LDCs												
Mali	26	--	--	2	14	17	9	5	21	62	--	- 5
Somalia	11	17	2	2	10	16	3	2	4	111	5	--
Brundi	19	17	2	2	6	14	5	5	1	21	--	--
Chad	18	27	1	3	11	17	5	- 7	4	31	1	21
Upper Volta	31	37	1	3	10	25	- 4	- 3	--	39	--	--
Malawi	38	53	--	7	10	32	- 4	16	35	78	9	10
Rwanda	6	3	--	--	6	10	8	4	--	18	--	5
Guinea	12	18	--	53	5	15	6	16	80	65	10	--
Niger	40	--	1	56	13	19	12	12	11	63	1	--
Benin	19	45	1	3	15	22	9	- 5	1	29	7	--
Central African Rep.	14	9	11	19	20	20	9	8	--	19	1	8
Lesotho	2	2	--	--	2	30	-25	-71	--	4	--	--
Selected middle-income and industrialized countries												
Hong Kong	899	1314	617	7267	19	26	1	15	--	38	--	--
Singapore	388	707	352	3626	11	36	3	27	52	40	93	422
Denmark	3100	--	752	5580	23	23	22	21	--	--	75	101
Switzerland	--	--	2163	15821	29	22	29	24	--	--	--	--

a/ Public and publicly guaranteed medium-and long-term loans

SOURCE: World Bank, World Development Report, 1980

mass poverty and launch a self-sustaining process of development?" Needless to say, there is no generally accepted theory of industrial development strategy applicable to the unique circumstances of the small LDCs. The often-quoted success stories of South Korea, Hong Kong, Taiwan and Singapore may not be repeatable because of special circumstances such as an exceptional dose of human and physical capital generated within these countries. Obviously none of these key ingredients for rapid industrialization - physical capital and skilled manpower - are available at the very early stages of industrialization, literally starting a process of industrialization from scratch.

This paper attempts to evaluate major options open to small LDCs, and particularly those of resource-poor countries in terms of industrial development strategy, suggest a viable strategy, and specify its required international support measures. Section 2 discusses the problems of industrialization for the domestic market and particularly assesses the viability of the inward-looking industrialization strategy for small LDCs. In Section 3, the strategy of export-oriented industrialization is examined with special emphasis on its relevance to small LDCs. The problem of transition from import-substitution to export-led industrialization and particularly its timing, is analyzed in Section 4. Other major issues related to technology transfer and the role of government in industrialization are discussed in Section 5. Major findings and a set of policy recommendations arising from this study are given at the end. They purport to highlight the major elements of a viable strategy of industrialization for small LDCs, the ways in which other DGs, particularly more industrialized DGs, can aid small LDCs to industrialize rapidly within a framework of economic and technical cooperations among DGs, and other international support measures required for the effective implementation of a blueprint for industrialization conceptualized in this paper.

SECTION 2 : INDUSTRIALIZATION FOR THE DOMESTIC MARKET

2.1 The Primacy of Industrialization

In the past, the economic policies of a majority of the DGs have been greatly influenced by the traditional theory of economic development based on the labour surplus and trickle-down argument. More specifically, they are based on the body of theories developed by leading thinkers of development (e.g., Lewis, Fei and Rains) that the modern industrial sector would become the leading sector in DGs, drawing on the unlimited supply of labour; the subsistence cost of labour would permit rapid accumulation in the industrial sector; and the benefits of industrialization would trickle down to the poor segment of the society and all rural development would ensue.

Recent empirical evidences in many DGs lend little support to the validity of this general theory and particularly the trickle-down theory became just a pious hope. Thus, Vanek and Emmerij [26, Chapter 3, p.6] observed, "The few who came from the countryside and got well paying union jobs were turned into inanimate consumers of their industrial products. The majority coming from the countryside, not finding well paying jobs formed the infinite slums surrounding all cities. With rapid population growth everywhere and no adequate employment growth in the modern sector, destitution and poverty in the slums and in the countryside for the most part were accentuated".

They further noted that the anticipated accumulation and saving process failed to get off the ground, since most of the profits generated in the modern industrial sector are either transferred abroad or appropriated by a small group of the rich whose propensities to spend on foreign luxury goods are insatiable, being constantly bombarded with demonstration effects of the Western opulence. Even if such accumulation would occur, a highly skewed distribution of wealth and consequent concentration of power in favour of the elites would result.

Perhaps, small LDCs can learn a great deal from the past patterns of industrialization observed among many DGs such as India, Pakistan, Bangladesh, and Syria. The following common salient features emerge from their seemingly diverse experiences.

a) Employment growth has been lagging behind output expansion in the industrial sector, implying a fairly high capital intensive factor proportion.

b) As a corollary of the above case, the industrial sector failed to become a major source of productive employment for the surplus labour in the agricultural sector. As a result, agricultural sector has borne the brunt of employment-creation.

c) Per capita consumption of industrial output has remained stagnant.

d) Industrial output expansion has not been commensurate with the preponderance of resources allocated in favour of industry away from agriculture.

e) Industrialization process has exacerbated the maldistribution of income and wealth.

Some of the points raised above, although partially valid, are highly debatable. First, too much and too soon is expected of the employment-creating capacity of the modern industrial sector. Recent empirical studies in the income and employment multiplier analysis in the industrialized countries point to a conclusive evidence that the direct employment effect of industrial investment is small relative to the secondary effects - inter-industry effects resulting from the inter-industry purchases of inputs and the income-induced effects of income propagation in the traditional multiplier analysis. These secondary employment effects were not usually considered when the criticism was levelled at the inability of the industrial sector to create sufficient employment. Undoubtedly, at the initial stages of industrialization where inter-industry linkage is still weak, the secondary effects may not be significant, but as the industrial base broadens and becomes integrated, both horizontally and vertically, the employment impact of industrial activities should become increasingly important.

The stagnant per capita consumption of industrial goods arises largely from structural imbalances caused by lack of agricultural and industrial linkages. Increases in agricultural productivity and incomes are particularly important for generating domestic demand for industrial products at the early stages of development. This factor receives an added importance, given the fact that agriculture dominates the economy and particularly over 80 per cent of employment are still found in agriculture in most LDCs. It is, therefore, essential to ensure that not only the neglect of agricultural development does not occur as a result of preoccupation with industrial development but also the industry-agriculture linkage becomes an integral part of the industrialization strategy.

It may be worth noting that despite past unsuccessful industrialization in many DCs, the need for industrialization has never been called into question. What is in dispute is the strategy of industrialization followed, the pattern of industrialization, and the industrial structure that has emerged. It is, therefore, of crucial importance to examine carefully each of major options open to small LDCs in terms of industrial development strategies, the intertemporal pattern of industrialization and desired industrial structure over time. Finally it must be borne in mind that industrialization policies have political dimensions and hence ideologies are involved in the choice of both strategies and industries.

2.2 Problems at the Early Stages of Industrialization and the Need for Import-Substitution Industrialization (ISI)

At the initial stage of industrialization in which the major bulk of the LDCs is situated, the problem is that of "starting industrialization from scratch" with the virtual non-existence of essential ingredients - capital, skilled labour, technical know-how, and a wide range of physical and institutional infrastructure. The choice is further circumscribed by the limited size of the domestic market which may preclude the production of many industrial products exploiting economies of sale.

Within these extremely formidable constraints, crucial choices have to be made with regard to the sector, scale, and timing of investments - especially timing and phasing of lump investments in supporting

infrastructure and some of industrial establishments. Even if the external capital is available, the financing and management of large plants and complex production systems is generally beyond the capacity of both private and public sectors at the incipient industrialization stage.

While energetic efforts must be made to mobilize domestic and external resources for starting the industrialization process, difficult choices must be made with respect to the type of manufacturing industries appropriate to the initial conditions of small LDCs. Given technological constraints and the small domestic market, it appears logical that an early development of manufacturing should be predominantly labour-intensive and should concentrate on th simple mechanical processes applied to local materials, and non-durable consumer goods the products of which are consumed in the local market, namely basic local needs such as food, clothing and shelter. For instance, such simple technology industrialization is typified by village blacksmith operations producing simple tools, local pottery, hand loom weaving, brick and tile making and any other simple manufacturing activities which are attuned to the local technical know-how and also efficient at the low level of output.

Apart from the problems of the product choice and modes of production appropriate to the initial conditions of small LDCs, further difficulties still arise as to the appropriate form of foreign trade regime. In industries competing with imports, a clear-cut industrial policy has to be formulated as to how and how much they should be protected against foreign competition. The crux of the problem lies in the dilemma that too much protection fosters inefficient industries and nurtures vested interests while too little "nip the young industries in the bud".

It is widely accepted among leading development thinkers that import substitution at the early stages of industrialization is a first necessary step to industrial development, even for small LDCs. The encouragement of import substitution has generally secured a rapid expansion in manufacturing, evidenced by historical experiences of Mexico, Brazil,

Philippines and Turkey. Kubo and Robinson [13, pp.15-17] and the World Bank Study [27, pp.243-49] underscored the crucial importance of a period of extensive import substitution preceding the period of phenomenal growth of manufactured exports in Korea, Taiwan and Japan. It is through this early stage of import substitution that protective measures can be deployed while skills are acquired, necessary infrastructure established and technological bases underpinned, all contributing to development of domestic industries and strengthening of their international competitiveness. In fact, without this preparatory stage, the recent success stories of Korea and Taiwan might not have been possible. This preparatory period falls between the mid-fifties and early sixties in case of Korea and Taiwan, and this period corresponds to the postwar reconstruction in case of Japan.

Apart from building an export base, the initial pauperized conditions of small LDCs offer little option but import substitution. Manufacturing cannot be nurtured in an environment where the domestic market is small, infrastructure primitive, capital and entrepreneurial talents scarce, and skilled workers almost non-existent. The easiest way out of this predicament would be to concentrate on the domestic market that already exists, usually served by imports from abroad and probably developed by importers or trading companies. The old infant industry argument can be justifiably invoked at the initial stages of industrialization. Some of the important justifications for protective measures in the form of import duties, quotas, outright import ban, and industrial licensing are: limited markets preventing economies of scale, higher unit fixed cost resulting from extra infrastructure requirements, greater shipment and installation costs of the factory equipment, heavy reliance on costly expatriate services, higher prices for the imported raw materials and intermediate goods, and considerable risk premiums required on capital.

Exactly for the same reasons, infant industries sheltered under the umbrella of ISI strategy are not expected to improve quickly their productivity growth and competitiveness. For a long time, they will be saddled with high original capital costs, higher rates of return, royalties, sizeable technical services and expatriate personnel costs, large cash flow requirements for servicing debt, etc. Of course, all these factors

tend to stunt productivity growth and freeze their incompetitiveness for a long time.

Further complications in industrial policies arise some time after infant industries are safely anchored and begin to grow. As the market expands gradually, the balkanization of the market caused by new entry of firms may preclude the realization of economies of scale. Under such circumstances, the government is faced with the dilemma of restricting entry and granting monopoly to the existing firms, thus perpetuating the inefficiencies of old firms or promoting competition which results in the market fragmentation. Either way, the productive efficiency suffers. The government may institute a competitive bidding process and grant the exclusive rights to the winning bidder. But this alternative may not be politically feasible.

Historical experiences of ISI strategy suggest that the first phase of import substitution usually contains little domestic value added because of high contents of imported intermediate goods and components, and foreign capital employed. However, if the strategy should proceed without a hitch, in the second stage, (usually after a lapse of some ten years from the beginning of the first phase), there expects to be a visible shift in the composition of imports in favour of raw materials, intermediate and capital goods accompanied by an appreciable decline in the imports of nondurable consumer goods. As the economy gears itself toward the more advanced stage of producing intermediate goods domestically, the early import-substitution industries may usually reach the market saturation because of the relatively small domestic market, particularly for small LDCs. As a result, they develop overcapacity. Because these industries are nurtured behind the high walls of protection, they are poorly equipped in terms of structural efficiency to compete effectively abroad. Ironically, export markets may be the only way for increasing the rate of utilization and capturing scale economies.

Therefore, where domestic markets are relatively small, the pursuit of import-substitution policies beyond the early stages of industrialization should be viewed with extreme caution. Further progress becomes extremely difficult once early import-substitution opportunities have been fully exploited. This is because the inward-looking strategy represented by import

substitution requires the development of multiple production lines, each of which will be hampered by economic inefficiency resulting from the market size constraint, and the production of intermediate and capital goods and consumer durables at the later stages also calls for technologically sophisticated, capital intensive, and skill-concentrated inputs, organized on a relatively large scale whose possibilities the small market rules out.

Even for some large developing countries, which pursued ISI strategy well beyond the early stages, the results have been generally judged to be a failure. The following are some of the major arguments against ISI strategy. First, no significant inter-industry linkage developed between large-scale modern industries and small-scale local industries. This results from the reluctance of large-scale firms to subcontract with local firms partly because of quality considerations and even more because of their unwillingness to lose market control, particularly among large multi-national corporations. In some areas of industrial operations, the establishment of large-scale industries is necessary for reasons of technical and efficiency considerations. Often in such cases, the small-scale local industries produce a range of output which are completely unrelated to those of the modern large-scale industries, thus creating an industrial dualism where each coexists in its own sphere with little, if any, inter-industry transactions between them.

Second, the growth of the modern industrial sector may be attained at the expense of small indigenous industries. Particularly, confronted with the effective advertising and promotional activities of these modern industries, the extinction of local indigenous industries is a real possibility.

Third, there is serious foreign exchange cost. Especially at the early stages of industrialization where there exist no technological and skill capacity to produce intermediate goods and capital goods, all inputs except cheap labour are imported and the resultant total unit cost might be higher than the c.i.f. costs of the substituted imports. Furthermore, there is the possibility of production disruption caused by the unavailability of foreign exchange. Thus, Little Scitovsky and Scott[18]underscore that "there is too much capacity at the final and too

little at the intermediate stage of production; this disparity calls for the importation of more inputs than anticipated, and when the foreign exchange to pay these imports is not available, it leads to the underutilization of capacity at the final stage of production. The problem of production disruption and consequent industrial capacity underutilization caused by lack of foreign exchange looms even more serious in the coming decade when oil prices are expected to escalate drastically, claiming increasingly a larger share of scarce foreign exchanges of the LDCs which could be otherwise used to pay for the importation of intermediate and capital goods.

Fourth, ISI has failed to create productive employment in a sufficient quantity to make a significant dent on the massive unemployment and under-employment in DGs. As discussed earlier, this criticism should be tempered by consideration of potentials for greater employment expansion at the later stages of industrialization when inter-industry linkages are more firmly established and the indirect employment effects through inter-industry relations become more important.

Fifth, ISI has been associated with the disparity in industrial location and consequent spatial maldistribution of incomes, particularly between urban and rural sectors. The choice of industrial location is influenced by many factors, such as locational advantages of raw materials and energy supplies, economic infrastructure, geographic proximity to markets, and even political expediency. It does not appear, however, farfetched to state that ISI strategy per se is not the cause of such regional imbalances, but a permissive factor for accentuating the existing inequalities. Spatial maldistribution of industries is likely to be more of the consequences of the interplay of economic and political power groups which shape the basic orientation of ISI.

Sixth, the criticism is levelled at the imbalance in the choice of products resulting from the pursuit of ISI. ISI heavily favoured the production of a range of consumer goods catering to the rich urban class among the consumption goods. While serving the needs of urban population where profit was ensured, the development of basic needs oriented industries

for a large and poor segment of the society, particularly the rural poor was totally neglected.

It may be worthwhile to note that a major cause for the bourgeoise orientation of ISI in the choice of products and industries is the weakness of effective demand in the rural sector. It is well known that vigourous agricultural growth stimulates domestic demand for industrial products, and reinforces industrial growth by supplying cheap foods for industrial workers and raw materials for agro-based industries. It is, therefore, imperative that policy measures to boost employment and incomes in the rural sector be adopted and implemented. In this context, policy measures which contribute to worsening domestic terms of trade against agriculture need to be reassessed and modified. Among such measures commonly practiced in many DGs are artificially low prices administered to agricultural producers, and overvalued exchange rate, and heavy protection for manufactured goods. As positive measures, local small-scale establishments and cottage industries should be developed to serve the rural markets. But they tend to be traditionally primitive and stagnant. It is, therefore, essential to modernize these small-scale and cottage industries and to find ways and means to establish a linkage between the modern urban sector and indigenous sector. Often, mere allocation of funds and creating official machineries such as small industry corporation, a handloom board, a serviculture board, will not do the trick. What is needed here more than anything else is the genuine commitment to the improvement of the rural sector.

Lastly, ISI distorts resource allocation and consumers pay higher prices than those of imported goods. This distortion inhibits competition which in turn stunts learning and productivity growth, and affect adversely the stability of long-term industrial structure by encouraging investors to invest in projects with quick profit potentials behind high protection.

In view of the foregoing discussion on some of the severe limitations of ISI, it comes as no surprise to see ever-increasing disenchantment with this strategy and even outright repudiation of its validity. So Landsberg [16, p.51] summed up with some justification: "For the Third-World countries, results of ISI were anything but positive: (1) greater starvation for the majority of the people, (2) limited industrialization, (3) growing regional inequalities, and (4) larger deficits and debt".

SECTION 3 : EXPORT-LED INDUSTRIALIZATION (ELI)

3.1 Rationale for ELI Strategy

In the preceding section, the possibilities and limitations of domestic market oriented industrialization and particularly ISI were analyzed in the context of small LDCs. One of the important conclusions emerging therefrom is that ISI may be a first necessary step for building an industrial and technological base, and developing skills. However, if ISI is pursued beyond this initial preparatory stage, further industrial development is likely to be hampered by many serious limitations endemic to ISI. It might be useful to recapitulate major stumbling blocks to industrial development associated with ISI. They are: dualism between modern sectors and small-scale local enterprises; crowding-out of small indigenous firms by the modern large-scale firm; foreign exchange drains; industrial overcapacity and consequent productive inefficiency; inability to generate sufficient employment; fostering regional, industrial and product imbalances; and misallocation of resources.

Recent studies on the patterns of industrial growth[4/] much focussed their attention among other things on the identification of an efficient growth pattern. One of the most commonly accepted paradigms is a theory of progression through successive stages of comparative advantages. Namely, industrial specialization evolves gradually over time toward a highly sophisticated and complex form, beginning with unskilled, labour-intensive and low-technology industries, and next thrusting toward more capital-intensive industries, and finally culminating in the development of highly skill-intensive and technology-deepening industries. In terms of the growth patterns of individual industries, labour-intensive, non-durable consumer goods industries such as textile, clothing, leather goods, correspond to the early stages of industrialization; chemicals, iron and steel are typical of the industries that achieve prominence at the middle stages of industrialization; and basic metals and machinery, and transport equipment characterize some of the important industries at a later stage.[5/] The crucial importance of the intermediate stage in the patterns of structural change stems from the fact that increasing amounts

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4/ See Chenery [4], Chenery and Syrquin [5], Chenery and Taylor [6], Kuznets [14], Temin [24], Rostow [21], Greogry and Griffin [9] and United Nations [25]

5/ See Chenery and Taylor [6], pp.391-196

of chemical, iron and steel products are being used as intermediate inputs, thus extending backward and forward industrial linkages.

Given this optimal pattern of industrial development, the question arises as to the appropriate form of industrial development strategy and policies which may facilitate the evolutionary process of industrial specialization. It was amply demonstrated that the inward-looking ISI strategy is not an appropriate choice for small LDCs except at the initial stages of industrialization. The logical step following the initial preparatory stage of ISI appears to be a switch to ELI strategy. However, the validity and viability of ELI as correct industrialization policies for small LDCs needs to be more closely examined. Moreover, it is equally important to specify the types of corrective measures, external supports, and cooperation that are needed to make this strategy work.

As noted earlier, industries nurtured behind the high walls of protection tend to suffer from the erosion of productive efficiency, inefficient scale of operations, chronic capacity underutilization and overvalued investment costs. Obviously, they cannot compete effectively abroad under this condition. Exports may be the only way out of these difficulties for such industries, particularly in small LDCs with small domestic markets. Exports increase capacity utilization and thus add further scale economies. Moreover, since manufactured exports at the early stages of industrialization tend to be more labour intensive and less capital intensive than import substitutes, these activities will be less constrained by the availability of scarce skills and capital and create more job opportunities for unskilled labour. They afford also valuable opportunities for developing managerial and technical manpower.

The critical importance of trade to small developing countries has been extensively documented in the literature. Numerous studies have focussed on the inverse relation between country size and both trade dependance and trade-concentration. For instance, Leontief[17] noted "The smaller and the less developed a country is, the more it can be expected to exploit its productive capacity independently of its immediate needs and bridge the gap between production and consumption by means of foreign trade". Also many others such as Adelman and Morrison[1],

Robson and Lury[20], and Dalton[7] pounded on the theme that the less developed and smaller a country is, the more concentrated are its exports and the more trade dependent it becomes.

3.2 Obstacles to ELI Strategy for small LDCs

Given the perceived urgent need for promoting manufactured exports for small LDCs, it should be very useful to identify, first, possible major obstacles to new export drives by small LDCs and specify necessary corrective measures to overcome them. In order to explore the export potentials of small LDCs, one may have to examine critically and draw upon the past performance of manufactured exports from DGs.

Table 2 summarizes the export performance of manufactures[6/] in 1976 for the top ten performers among DGs, which account for nearly 95 per cent of total DGs' manufactured exports. It is particularly notable that the top seven countries, - Hong Kong, South Korea, Yugoslavia, Singapore, India, Brazil, Mexico - received together the lion's share of DGs' total, equal to over 90 per cent, and those of the LDCs are virtually non-existent. This highly lopsided distribution would be further accentuated if Taiwan's exports were included in the sample. The share of manufactured exports to other developing countries varies considerably among these countries, ranging from a low 12 per cent for Yugoslavia to 70 per cent for Brazil. Table 3 sheds some light on the patterns of trade among DGs. Particularly, it highlights the special importance of the geographical distribution where trade among DGs is most heavily concentrated in Asia, followed by Latin America, while Africa's proportion is rather miniscule. The predominantly regional character of trade among DGs is noted by the fact that the major bulk of exports from the three continents remains within the continent, obviously influenced by the distance factor.

Although several rapidly industrializing countries dominate DGs' manufactured exports to developed market economies, their aggregate size poses no discernible threats to the manufacturing sector as a whole in industrialized countries. Table 4 shows that largest commodity group shares

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6/ Adopting Landsberg's method[16], by narrow definition, manufactured goods include chemicals (SITC5), basic manufacturing (SITC6), machinery and transportation equipment (SITC7), and miscellaneous light manufactures (SITC8). Its broad definition adds to the above items processed products such as processed foods and wood, and paper products in the SITC 0-4. Petroleum products (SITC3) and unworked nonferrous metals (SITC68) are excluded.

are usually concentrated in labour intensive products - leather, footwear and travel goods; wood and cork manufactures; and clothing, all of which exceed 25 per cent in terms of the DGs' share of exports to OECD countries. It must be, however, noted that these three commodity groups accounted for about 8.6 per cent of total OECD imports of manufactured goods in 1977. Of the sophisticated manufactured goods, DGs' share of the OECD markets surpassed 10 per cent level only for electrical machinery.

Krueger [12] further noted that DGs' share of manufactured exports to OECD countries is not only relatively small, but also the reversed flows of manufactured exports from North to South is far greater and without this North-South trade, OECD countries will be deprived of a major source of growth for manufacturing output.

In line with Lansberg's astute observation, there is a need for making sharp distinction between the manufactured exports of large DGs and those of small DGs. According to Lansberg's study [16], Mexico, Brazil, Argentina and India together accounted for 55 per cent of all Third-World manufacturing production, but only about 25 per cent of all Third-World manufactured exports (narrowly defined). By contrast, Hong Kong, Malaysia, Singapore and South Korea together accounted for less than 10 per cent of Third-World production but 35 per cent of Third-World manufactured exports (although South Korea and Malaysia cannot be classed as small countries in terms of population). The implications are clear: Given large domestic markets, relatively abundant natural resources, fairly well-established infrastructure, the former group has developed an industrial base for producing a broad range of traditional resource-based manufactures such as foodstuffs, tobacco, wood, textiles and leathers. These traditional manufactures are produced for both their domestic markets and exports, and their dependence on exports is less critical than small exporting DGs. By contrast, the second group of DGs is generally distinguished by small internal markets and poor natural resource endowments. Therefore, they specialize in non-resource based manufactures primarily for exports (e.g. clothing, engineering goods and light manufactures). Needless to say, the experiences of only the latter group's export drives will be directly pertinent to small LDCs, while those of large DGs will be of limited relevance.

TABLE 2

THE TOP TEN DEVELOPING COUNTRY (DG)[a] EXPORTERS OF MANUFACTURES[b] IN 1976

Country	Total Manufacture's Exports			
	World ($million)	Share of total DG exports (%)	DGs ($million)	Share of Exports to DGs (%)
Hong Kong	6951	24.92	1177	16.9
Republic of Korea	6273	21.26	1175	18.7
Yugoslavia	3241	10.99	399	12.3
Singapore	2503	9.84	1594	54.9
India	2866	9.71	1015	35.4
Brazil	2114	7.17	1470	69.5
Mexico	2043	6.93	541	26.5
Pakistan	683	2.32	243	35.6
Argentina	509	1.73	317	62.3
Philippines	306	1.04	97	31.7
TOTAL	27889	94.54	8028	28.79

Notes: [a] Taiwan is not included in UN Computations

[b] SITC 5-8 less 68

SOURCE: UNCTAD, Trade in Manufactures of Developing Countries and Territories and United Nations, Commodity Trade Statistics, various years.

TABLE 3

REGIONAL DISTRIBUTION OF INTRA DEVELOPING COUNTRIES' TRADE IN MANUFACTURES ($ millions, fob)

Exports from	Exports to Developing countries	Developing Countries in Africa	Asia	Americas Total	LAFTA
Developing countries					
1968	2215	342	1323	550	283
1972	4390	699	2420	1271	750
1976	9087	1354	4772	2961	1748
Developing countries in					
Africa					
1968	147	1o5	40	2	1
1972	299	245	40	14	8
1976	536	440	46	50	26
Asia					
1968	1577	229	1279	69	36
1972	2984	425	2410	149	59
1976	6139	983	4973	183	73
Americas					
1968	491	3	6	482	246
1972	1107	7	18	1082	687
1976	2412	16	41	2355	1531

Source: UNCTAD, Trade in Manufactures of Developing Countries and Territories, and United Nations, Commodity Trade Statistics, various years.

TABLE 4

OECD Imports, by Commodity Groups and Origin, 1963 and 1977 (percentages)

Commodity Group and SITC Number	Seven Exporting DCs	Other non-OECD DCs	Industrial OECD Countries	Total OECD	Share of OECD manufacturer Imports
Chemicals (5)					
1963	1.2	3.5	90.8	91.7	12.1
1977	1.4	4.1	91.2	92.3	12.9
Leather, Footwear and Travel Goods (61, 83 and 85)					
1963	4.9	7.6	81.4	83.7	2.2
1977	23.4	7.8	56.6	64.5	2.4
Rubber Manufactures (62)					
1963	.3	.7	97.6	97.8	1.1
1977	3.4	.7	90.o	94.2	1.3
Wood and Cork Manufactures (63)					
1963	6.1	8.7	74.0	80.2	1.4
1977	19.1	7.4	65.1	69.8	1.2
Paper (64)					
1963	.2	.3	98.4	98.5	4.5
1977	1.2	.1	96.5	97.5	2.9
Textiles (65)					
1963	3.3	11.4	80.5	82.9	8.9
1977	7.9	8.6	74.8	79.0	5.3
Nonmetallic Mineral Manufactures (66)					
1963	1.9	3.3	84.0	84.8	3.9
1977	3.4	7.0	73.4	74.9	3.3
Iron and Steel (67)					
1963	.8	.8	91.7	92.2	9.3
1977	2.4	1.7	87.9	90.3	6.4
Metal Manufactures (69)					
1963	1.0	.4	97.3	97.8	3.7
1977	5.4	.9	89.9	91.9	3.4
Nonelectrical Machinery (71)					
1963	.1	.3	98.5	98.7	20.1
1977	1.8	.4	95.3	96.3	16.6
Electrical Machinery (72)					
1963	.6	.5	98.0	98.2	8.3
1977	11.0	2.0	84.8	85.8	10.3
Transport Equipment (73)					
1963	.5	.8	97.5	98.0	12.2
1977	1.1	.4	95.8	97.5	18.2
Miscellaneous Finished Manufactures (81, 82, 86, 89)					
1963	3.5	.8	92.8	93.5	9.0
1977	9.9	1.4	84.3	85.6	10.2
Clothing (84)					
1963	16.1	3.0	77.3	78.5	3.3
1977	34.0	8.2	46.8	51.9	4.9

Source: OECD. This table is taken from Krueger's study [12]. Seven exporting DCs are Brazil, Hong Kong, South Korea, Mexico, Singapore, Taiwan and Yugoslavia.

It is perhaps useful to recapitulate three salient features of the current structure and patterns of DGs' manufactured exports, which may have important implications for ELI strategy of small LDCs. First, manufactured exports from all LDCs in terms of both trade among DGs and North-South trade, are virtually non-existent. Second, a small number of DGs is dominating Third-World export activities of manufactured goods. Third, DGs' manufactured exports have not yet become sufficiently large in the aggregate to affect adversely the manufacturing output and employment as a whole in industrialized countries. Against this background, the question arises as to how likely small LDCs are to succeed in launching a new export drive. The answer to this question may call for the realistic assessment of some of obstacles to ELI of small LDCs.

First, the prospect for opening new export markets, especially markets in industrialized countries, offers little grounds for even moderate optimism in the light of the current instability of the global economy caught at the throes of stagflation and resultant tightening of markets in developed countries (DCs). As a result, developing countries pursuing ELI will find it increasingly difficult to hold the present level of overall production and exports. If the world economy should continue to grow 3 or 4 per cent, this process will markedly ease the problem by generating enough additional markets for new manufactured exports from DGs. But this could be a wishful thinking, since the gloomy economic landscape of the West does not augur a better future. Particularly, lackadaisical economic performance of the Western countries is likely to continue in the coming decade, since the days of cheap raw materials, particularly cheap energy, are over, seriously undermining their competitive position in the world market; and the primacy of highly productive manufacturing sector as an engine of economic growth is in the past and superseded by the dominance of service sector which does not lend itself to high productivity growth.

Second, as a negative response to the current international stagflation, swelling sentiment of protectionism is sweeping across industrialized countries. As a result, increasingly visible are various forms of trade barriers erected - quotas, special levies, unofficial cartels, orderly marketing arrangements, etc.

Last but not least important, there is the problem of so-called "late-comers". As discussed earlier, the markets in the industrialized world for labour intensive manufactures were already pre-empted by a small number of DGs dominating this field such as Hong Kong, Taiwan, Singapore and South Korea. Therefore, the problem of market penetration has to be first grappled with in order to make ready for the export drive. There may be several alternative solutions to this problem. First and obvious, industrialized countries open additional markets for labour-intensive manufactured exports specifically earmarked for small LDCs. Particularly, since these "late-comer" DGs have not yet developed necessary physical and institutional infrastructure geared to support these export activities, it is highly important to grant some sort of favourable quotas to enable them to secure their initial markets at the inception of their export drive. Another avenue for initiating and expanding manufactured exports of small LDCs is through close technical and economic cooperation between rapidly industrializing DGs and LDCs. Exploiting shifting comparative advantages and dynamic international division of labour, these rapidly industrializing countries with a dominant share of DGs' manufactured exports, move out of the traditional territory of labour intensive manufactured exports and venture into more technologically advanced and skill intensive products and product lines and at the same time diversify their markets. This process will entail a shift in the composition of more advanced DGs' manufactured exports from traditional labour intensive goods such as textiles, garments, electronic assembly, and other light manufacturing to more technologically sophisticated and skill-intensive goods such as engineering goods, machinery, components, consumer durables and transport equipment. The process will be also marked by shifting locational incidence of production of labour intensive goods from more developed DGs to LDCs, - a form of South-South industrial redeployment - as it occurred in the past in textile industries first from Japan to Korea and Hong Kong, and then countries in southern Asia. Two major potential benefits are expected to be accrued from this industrial realignment among DGs. In the spirit of collective self-reliance, rapidly industrializing DGs could help small LDCs to anchor firmly their initial export markets for labour intensive manufactures in industrialized countries which they previously penetrated. Furthermore, rapidly industrializing DGs themselves could provide expanded market opportunities for small LDCs, as their factor intensity tips toward more capital in response to increasing wages and their inputs of labour intensive

goods may grow.

As clearly related to the above argument, expanded trade among DGs will tap wider local and regional markets and thus provide increased opportunities for small LDCs to partake of benefits of external trade. Of course, trade among DGs is a conceptual cornerstone of collective self-reliance. Despite its ideological appeal, this option may have its own political problems and past experiences in trade expansion and economic cooperation among DGs do not offer too much optimism. After all, DGs themselves may become protectionistic in their efforts to industrialize and political conflicts among DGs may prove to be often an impasse to the realization of this goal.

Even if profitable export markets for labour-intensive manufactured goods, preferably of low-skill content, are developed for small LDCs with or without active support of the international community, and further LDCs can successfully mobilize both domestic and external resources to produce them, major difficulties associated with the life of late-comers are by no means over yet. There is the problem of marketing and promoting an array of manufactured goods. As stressed earlier, these small LDCs are utterly lacking institutional infrastructure needed for export promotion policies. Given the present volatile conditions of foreign markets and swelling tides of protectionist sentiments, the problem of marketing is becoming increasingly formidable even for a handful of rapidly industrializing countries with an enviable track record of export promotion. An easy way out of this impasse is to engage foreign firms, usually transnational corporations (TNCs), who have already established an extensive marketing network throughout the world and are well versed in complex rules of the game governing international trade. It is historically established that foreign investors played an effective part in launching new industries for export markets. A good example of this phenomenon is the widespread off-shore production of labour intensive goods such as electronics and garments. TNCs are known to be great international marketers and highly skilful in exploiting profit potentials which result from the international division of labour between their national plants scattered in various parts of the world. In sum, despite many serious shortcomings and possible detriments to the host country resulting from direct foreign investments, there appears to be few other

alternatives but to launch ELI through collaboration with foreign partners in the initial stages of export promotion and later to concentrate on the smooth transfer of marketing know-how from foreign firms to the indigenous entrepreneurial group.

3.3 The Role of TNCs in ELI Strategy

Given the paucity of domestic capital and scarce entrepreneurial skills, and the virtual non-existence of marketing and promotional know-how, the initial dependence on foreign investments for launching a successful export drive, despite their potential negative impacts, is almost unavoidable for small LDCs, and their enlarged flows will be needed to break the import-substitution shackles. Foreign investments by TNCs bring with them capital, technology, management and marketing, all of which small LDCs are conspicuously lacking, and may help to implant a productive culture and pecuniary value system conducive to industrialization in the host country.

Undoubtedly, the government can play an important role in attracting foreign investments. Government policies to encourage foreign investments cover a broad range of investment incentives such as tax holidays, subsidized credits, bonus exchange rates, import duty exemptions for capital goods and raw materials, investment allowances and accelerated depreciation, etc. In the past, foreign investments and particularly TNCs' activities were characterized by (1) their primary interest in producing for the domestic market of the host country, i.e., import-substitution; (2) middle - or large-scale assembly operations, exploiting cheap labour; (3) the use of advanced technologies and consequent minimal employment creation; (4) little inter-industry linkages, particularly between the large modern manufacturing [illegible] and the indigenous small-scale industries; (5) high import [illegible]; (6) geographic agglomeration of their activities around the [illegible] city.

One of the major objections raised against TNC activities is foreign economic control that comes with foreign investments. Preoccupied with profit maximization and totally insensitive to the interests of the host country, they zero in on those projects that yield quickest and biggest returns on their investment, which are made possible by generous concessions

of the host government and adroit repatriation of profits.

Damages to the economy caused by TNC activities extend further to the demise of native small-scale industries which engaged in the production of goods similar to those of TNCs, e.g., textiles, beverages, cigarettes, etc. These fledgling small native industries are often steamrollered by the cold efficiency of TNCs, their superior advertisement and sales efforts of branded products. The growth of native industries is further hamstrung by favourable government policies to attract foreign investments such as import duty priviledges, exemption of corporate income taxes, overvalued currency and subsidized credits, etc. Where small-scale indigenous enterprizes manage to survive, often under the protective umbrella of government policies, foreign investments tend to forge a dual structure of the economy characterized by the parallel existence of the modern capital intensive industries and low-technology, labour intensive local industries and with no linkages between them.

In the last several years, the nature of foreign investments and TNC activities have undergone a significant change. Until recently since the end of World War II, TNCs activities, and particularly those of U.S. were aimed at the market expansion in the Third World, namely developing import-substitution industries, not at establishing export bases for supplying home markets. The major bulk of U.S. direct investments in Latin American countries with large domestic markets - e.g., Argentina, Brazil, Mexico - was of this nature. Recently, a new foreign investment, known as international subcontracting[7/] has emerged as a dominant force effecting the manufactured exports from the Third World.

International subcontracting may be undertaken by transnational foreign affiliates, joint ventures between transnational and domestic enterprises, or independent producers in DGs. Sharpston's study [23] shows that transnational affiliate production accounts for most Third-World production of semi-conductors, electronic memory circuits, engineering products and capital intensive goods. Independent Third World firms, and DCs' firms working in joint venture with DGs' firms specialize in an array of light manufactured goods such as finished consumer electrical products, small machines, sporting goods, toys and

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7/ For an illuminating analysis of the international subcontracting, see Sharpston [23] and its implications for industrialization of the DGs, see Landsberg [16].

wigs, etc. The key feature of international subcontracting is the DGs' manufactured exports to DCs as part of a complete organizational structure dominated by headquarter firms in DCs, and their complete control over research, product design, advertising and marketing.

The growth of international subcontracting in recent years appears to be phenomenal, although statistics on the volume of international subcontracting are too fragmentary to provide any firm indication. For instance, according to Sharpston's study [23, pp. 96-97], DGs' share of total imports allowed under U.S. tariff items 806.30 and 807.00 (these tariff items levy import duties on value added abroad if the inputs originated in the U.S.) grew from 6.4 per cent in 1966 to 21.4 per cent in 1969 and 35.9 per cent in 1973.

Undoubtedly, small DGs including LDCs are well suited for international subcontracting. There are fewer industries to compete for cheap labour. The small internal market size of the DGs is not a constraint, since production is geared to serve the markets of the developed capitalist countries. Furthermore, there are ample rooms for exploiting scale economies and modern capital intensive technologies. But the locational incidence of international subcontracting is more influenced by political stability of a country than economic considerations and hence concentrated in a handful of countries such as Taiwan, Hong Kong, Singapore and South Korea.

As in the case of other forms of TNC activities, the international subcontracting appears to have failed to deliver the promise of self-sustaining industrialization for DGs. It can be faulted for its two major negative impacts on the host economy. First, no linkages have developed between domestic consumption and production and subcontracting operations increased economic dependence on DCs. This is because the great majority of people outside export industries lacks income and hence production is primarily for exports. As a result, investment, resource allocation, and the choice of technologies are all directed at serving demand in DCs and tend to be unrelated to the needs of the majority of people. The second factor retarding the self-sustaining industrialization process is the fact that subcontracting operations usually specialize in the

use of low-skilled labour, producing goods which are highly standardized, technologically simple, and requiring little overhead capital (e.g. sporting goods, toys, wigs and plastics). Therefore, subcontracting operations stymie indigenous skill development urgently needed for industrialization.

In lieu of outright rejection of foreign investments and particularly TNC activities as an instrument for industrialization, there might be some scope for industrial policies designed to circumscribe TNC operations so as to make them more sensitive to the needs of the host country. First of all, in order to ensure the viable growth of small native industries, high selectivity can be exercised in choosing foreign investments and particularly stringent measures can be adopted to restrict the growth of large-scale industries directly competing with local industries. For instance, akin to the current Indian scheme, a list of reserved industries, might be drawn up for small scale indigenous enterprises with local technologies with a view to shielding them from direct foreign competition. If this option is less palatable on the efficiency ground, various support measures such as technical assistance and R+D, can be extended to raise the productivity of indigenous industries and hence strengthen their competitive position. Furthermore, it would be of paramount importance to establish linkages between modern large-scale enterprises and native small-scale ventures which could function as subcontractors. Of course, this is easier said than done. Apart from the general reluctance of TNCs to relinquish part of their control over the economy, the product quality and productive efficiency of local enterprises may need to be substantially upgraded to meet the subcontracting requirements of modern enterprises.

TNC operations need to be more attuned to the real needs of the host country. This is particularly true in the application of technologies, taking into account fully the technological impact on local employment, use of domestic raw materials, indigenous engineering supplies and services etc.

The proportion of imported contents in the final product should be an important consideration in selecting foreign investments, although such

selectivity is rather limited at the early stages of industrialization. Some industries such as cement and fertilizers are likely to contribute to higher value added of the product than others simply because of ready availability of local materials. Other industries such as automobiles, pharmaceuticals, electronics, etc., and other assembly types of operations with low local contents, are set up because of the overriding interests of TNCs in these products. In such cases, there is little choice for small LDCs but to increase local contents gradually, perhaps over a long period and primarily emphasizing the importance of skill development and acquisition of technical know-how by learning-by-doing.

Moreover, a gradual process of reducing the incentive system favouring the capital intensive production of TNCs, increasing intervention in the choice of technology, and expanded local participation in the product designs and marketing may be highly desirable to foster the eventual self-reliance of LDCs, but the extent to which LDCs can exert such pressure on TNCs depends on the progress of industrialization and the strength of the underlying industrial base being built over time, since any LDCs' intervention in the TNC activities may be construed as stymieing the incentive to invest or expand production.

Above all, it should be recognized that marshalling the resources of TNCs is a temporary measure to boost industrial production at the embryonic stages of development. It is based on the premise that the industrialization process set in motion with the aid of TNCs' resources would eventually lead to the development of self-generative industrial capacity of LDCs to produce independently for the local market or direct exports and at the same time progressive stages of specialization bring with them increasing leverages of LDCs in bargaining with TNCs. The economic miracle of South Korea is often put forward as a successful example of weaning itself from its economic dependence on the industrialized world. Initially nurtured by a massive and continuous injection of foreign investments, South Korea has gradually strengthened its industrial base to such an extent that it has successfully developed an extensive domestic network of subcontracting between large-scale enterprises and indigenous small manufactures, and at the same time expanded overseas marketing networks

which have in turn fostered export diversification in many areas including shipbuilding and steel production. Similarly, the industrial base of Singapore is now such that it can be highly selective in the choice of technology, particularly in favour of advanced technology. Furthermore, once such a solid industrial base is built, it is quite possible that national enterprises play a dominant role and the international companies could participate only as suppliers of technology and know-how.

However, it may be worth emphasizing that LDCs' ability to influence TNC operations is likely to be significantly weakened by keen competition among DGs export business, as the number of DGs which try to industrialize through the export drive multiplies steeply in the coming decade. They will compete for foreign investments by offering various incentives such as tax holidays, export subsidies, and the establishment of free trade zones. It is, therefore, imperative to regulate excessive competition among DGs for foreign investments which will be a detriment to the interests of LDCs and to facilitate smooth flows of export business to LDCs in an orderly manner. There is the urgent need for putting together a coherent collective policy for promoting export industries of the small LDCs based on the close cooperation and principles agreed among DGs.

SECTION 4: TRANSITION FROM IMPORT-SUBSTITUTION TO EXPORT-LED INDUSTRIALIZATION

The ideal scenario of ISI strategy as envisaged by planners and policy-makers is progression through successive phases of specialization, beginning with the production of labour-intensive, technologically simple nondurable consumer goods in the first phase followed by the production of intermediate goods at the second phase, and climaxing with the production of capital goods and consumer durables at the final stage, It was, however, shown earlier that somewhere along this trajectory of industrialization, often even before reaching the second phase of ISI, the early import-substitution industries usually will encounter the problem of the domestic market saturation. At that point, exports are the only way out for such industries but they are in no position to compete effectively in the international market because of structural ossifications fostered by the protectionistic policies of ISI. Therefore, the question of optimal timing of a switch from ISI to ELI warrants serious consideration.

Unfortunately, there is no hard and fast rule for determining optimal timing of transition. It is, however, commonly recognized that the longer industries are protected from the external competition, the more difficult it becomes to dislodge vested interest groups of protected industries from their grip over industrial policies and foreign trade regime. It is, therefore, imperative that the transition policy be planned and implemented well before these vested interests gain political dominance.

Invariably, the transition is Pareto non-optimal in the sense that some group gains at the expense of others in the transition process. This is particularly true of the redistribution effect resulting from the transition policy-redistribution of income away from some of the existing import-substitution industries toward the newly favoured export groups. In order to cushion some of the transition shocks, the transition should be ideally timed to coincide with the prevalence of favourable socio-economic-political conditions such as relative domestic stability, good harvests, improved terms of trade, adequate foreign exchanges, etc.

The typical policy package for initiating a transition to export promotion entails (1) devaluation to adjust for differential rates of domestic and international inflation, (2) export inducements, (3) removal of tariff and other non-tariff barriers, and (4) elimination of some of the distortions in the market price system such as fiscal incentives favouring capital. Obviously, this is easier said than done. It is undoubtedly difficult to remove policy measures favouring capital imports since the LDCs need more than ever capital to accelerate infrastructure investment and industrial development. Further difficulties may arise from frequent foreign exchange shortages caused by the implementation of such a policy. This problem is further exacerbated by lack of unequivocal national commitment to the export drive and the erosion of competitive edges in the international market due to rampant domestic inflation. Yet, most critical among problems emerging during the transition is the balance of payments crisis. It is, therefore, of paramount importance to ensure adequate external financial support which will enable small LDCs to tide them over this difficult transition period. There is the urgent need for creating a regional and/or international machinery for mobilizing external resources and providing required technical assistance specifically designated for this purpose. The crucial importance of external support during the transition period is further underscored by the fact that as exports began to rise, policy measures to liberalize trade and exchange rate regime often run counter to the domestic economic expansion because of the need for deflationary monetary and fiscal policies, unless export activities get off a fast start and rise rapidly so as to give "a shot in the arm" strong enough to offset the effects of deflationary policies, the prospect that is very unlikely to occur at the early stages of industrialization.

It is particularly worth noting the important aspects of Korean success story in this context. First, the overall levels of protection and subsidy were relatively low and the liberalization of trade regime did not damage its productive efficiency. Second, Korea pulled through this difficult transition period in the early part of the sixties when import substitution had not yet progressed to the intermediate stage

of industrialization characterized by the development of high-cost intermediate and some of the capital goods industries.

As underlined earlier, export-oriented industrialization calls, inter alia, for a firm commitment from the government to accord the highest priority to export promotion. Export promotion measures take various forms. Most commonly promoted is the establishment of export processing zones near seaports or airports to exempt export industries from duties and other fiscal levies on imported inputs, bureaucratic red tapes, etc. Various special policy measures can be adopted to link directly imports to export activities; tariff exemptions on imports of raw materials and other intermediate goods for export production, domestic indirect tax exemptions on both intermediate imports for export production and export sales; preferential direct tax treatments of export earnings, preferential export credits; importers' licenses linked to export performance; tariff and tax exemptions granted to domestic suppliers of intermediate goods for export production and so on.

However, one cannot over-emphasize the importance of putting together coherent and consistent policies for export promotion. Many export promotion policies often suffer from the chaotic proliferation of regulations and laws government export activities and their enforcement was hamstrung by the cumbersome bureaucratic procedures erected by the large number of government agencies. For instance, the export promotion policy of exempting taxes on imported inputs for export production is not only unfair to exporters of similar products using domestic inputs but also impedes the development of crucial linkages between export sectors and local industries.

It has been stressed that the successful launching of the export drive for small LDCs requires a simultaneous two-pronged assault - the development of an industrial base for manufactured exports and the opening of export markets abroad. It has been further noted that TNCs can play this dual role by developing an export industrial capacity and at the same time marketing manufactured products through their own established international networks. However, there are some alternatives to the TNC involvement in tapping potential overseas markets, especially when

the countries concerned hold a darker view of the TNC activities based on their real or imagined fear for predatory tactics of the TNCs and hence are reluctant to engage their services. One alternative is to engage the services of foreign trading houses to develop new export markets. Usually these companies have already established an extensive global network and tend to be superb marketers. Another alternative is to establish your own national trading houses with active government support for overseas market development. However, this possibility is often precluded because of the paucity of technical know-how and the inadequacy of institutional infrastructure for marketing and promotion development. Perhaps, the most attractive alternative may be technical assistance in export promotion from more industrialized developing countries with established overseas markets. For instance, countries like South Korea, India, Taiwan, are in an excellent position to launch joint ventures with LDCs for export production, equipped with their considerable international marketing experiences and appropriate technology for developing countries. Furthermore, these more advanced developing countries may have to steer the course of industrialization away from traditional labour-intensive, low-technology manufactured exports to skill-intensive high technology products as steadily rising wage levels affect adversely their competitiveness based on cheap labour. As a result, these countries may need to turn to some of the LDCs as new markets for their new industrial products, as new locations for their overseas investments, and as a source of raw materials, while small LDCs look to these more industrialized DGs as potential markets for their labour-intensive manufactured goods. Based on the mutuality of interest and common political will, appropriate institutional mechanisms such as preferential trading arrangements and industrial complementation schemes need to be evolved to facilitate trade and joint production between small LDCs and more advanced DGs. It should be noted that this cooperative arrangement is somewhat different in nature from the traditional regional economic integration scheme which fosters economic integration based on regional groupings. This scheme is based on not so much the geogrsphic proximity as the complementarity arising from different stages of specialization between small LDCs and more advanced DGs without geographic constraints.

It should also be mentioned that a flurry of activities currently being undertaken by the international community for accelerated economic development of the DGs in the context of the establishment of New

International Economic Order (NIEO), New International Development Stategy (NIDS) and Global Rounds of Negotiations may generate some positive effects on the efforts of the LDCs to industrialize through the export drive. The international support measures as such can be particularly instrumental in (1) providing better access to the markets of industrialized countries, (2) establishing the commodity stabilization schemes, (3) securing the liberalization of capital markets in favour of the DGs and particularly the LDCs, (4) marshalling the resources of TNCs for the benefit of the DGs, and (5) securing an enlarged flow of capital and technology from the industrialized world. It is beyond the scope of this paper to assess how much of these professed goals and objectives enunciated in the NIEO and NIDS are likely to be achieved in the coming decade. It may suffice to say that any progress made in this direction as a result of intensification of international efforts would have significant positive impacts on the small LDCs in their endeavours to industrialize.

One final word of caution is in order. In practice, there is seldom a sharp dichotomy between ISI and ELI strategies in the sense that one or the other is solely pursued but not both at any given time. Of course, both domestic and foreign markets are tapped in the course of industrialization. It is a matter of a shift in priorities and accordingly differentiated policy measures to favour one type of industrialization over another. Since for some industries, relatively small firms can operate efficiently even within a relatively small domestic market, there is some scope for selectivity in the application of policy instruments, although the major thrust of industrialization strategy may be either outward - or inward-looking. However, when two sets of policy instruments are set up for different purposes, it must be ensured that one set does not run counter to the purpose of the other. For instance, export industries may not be compelled to purchase intermediate inputs produced by import-substitution industries at higher than world market prices. But this leads to a thorny question of when the intermediate goods industries and subsequently capital goods industries should be developed so as not to negate comparative advantages. Stated in a different way, could the country afford to wait until the scale economies result from the expansion of both domestic and foreign markets? There is no clear-cut answer to this question. In some cases it may pay to start a new industry earlier

than this strict principle of comparative advantage justifies. The validity of such an argument is further enhanced when small LDCs are confronted with strong protectionist trade barr ers in the world and the export markets for labour intensive goods virtually pre-empted by other early arrivals.

SECTION 5: OTHER MAJOR ISSUES

5.1 Technology Transfer

The mode of technology transfer from DCs to DGs is indeed varied and numerous. Technology can be transferred through such mechanisms as capital goods imports, direct foreign investment, engineering consultancy, education and training, turnkey projects, licensing agreements, management contracts, and informal business contacts, etc. Perhaps at the early stages of industrialization, foreign private direct investment may be one of the few options open to LDCs, since it combines technology, capital, skills, marketing and management in one package, which these countries lack conspicuously. However, foreign private direct investments usually bring with it many features unfavourable to the interests of LDCs.

The question of appropriate technology arises, first and foremost, among many technological issues. Simply the advanced technology of the rich country is unsuited to the needs of the poor country. The damaging effects resulting from the application of an inappropriate technology have been abundantly documented in the literature and hence they come as no surprise. Among a litany of familiar arguments we often hear are that the advanced technology is imported mainly to assist the exploitation of the DGs by the DCs; the industrial processes designed tend to be too capital intensive to alleviate the unemployment and under-employment problems of the host country; and foreign technology equipped with much higher productivity and superior marketing techniques jostles out native enterprises which cannot compete.

Predatory tactics shamelessly employed by some of the TNCs could be prevented if DGs develop technical know-how and bargaining power to select more specific, unpackaged form of technology suited to their specific technological needs. Unfortunately, technology market is the sellers' market and DGs suffer from the lack of technical competence to assess and select appropriate technology, as evidenced by their indiscriminate adoptions. The problem of choosing appropriate technology is further complicated by the imperfection and complexity of the international market for industrial technology. Technology buyers from

DGs are often saddled with the inflated costs of acquiring technology and burdened with technology contract clauses which put them in a straight jacket in terms of the restrictive buyers' exports and requirement of importing inputs from the supplier.

The gravity of problems requires immediate attention to the urgent need for drumming up international support measures to overcome these obstacles facing LDCs. In particular, concentrated efforts at the global level should be directed at (1) opening up ready access to information on profitable alternative technologies by establishing regional institutes for research and dissemination of technology information; (2) helping LDCs to establish technology screening centre to sift prospective technology imports; and (3) negotiating international codes of conduct for technology transfer and TNC activities.

One fruitful area of investigation which has been somewhat overlooked in the past is technology exports from more industrialized DGs, such as Argentina, Brazil, India, South Korea, and Mexico. In fact, they have been to a limited extent engaged in technology exports to other DGs, selling capital equipment, turnkey plants and engineering consultancy services. There are obvious major advantages to technology transfer between DGs. First, it has an ideological appeal consistent with the concept of collective self-reliance. On the substantive level, LDCs will benefit from the relatively low costs of highly skilled labour, and technology which is more appropriate to the conditions of LDCs and at the same time available in the unpackaged form. However, very little is known about the experiences of technology transfer among DGs and there is some danger of subsuming that everything will work out fine in the name of solidarity and collective self-reliance. More studies need to be undertaken on the possibility of expanding technology transfer between more industrialized DGs and LDCs.

5.2 The Role of Government

The government plays a dominant role in initiating and supporting the early stages of industrialization in all spheres of economic activities through regulation and direct intervention. In particular, the role of

public sector can be vital in (1) planning and financing physical infrastructure, - particularly transports and utilities - an undertaking for which the private sector is ill-suited in terms of massive capital requirements and risk-taking; (2) formulating and implementing the economy-wide macro-planning; (3) mobilizing domestic resources for industrialization; (4) operating public enterprises and promoting the transfer of appropriate technology.

Yet the characteristics of public sector economy may vary markedly from country to country. On one extreme end of a wide gamut of variations lies the central role played by the government in setting pace for development and controlling the "commending heights". India is a case in point where the public investment share is relatively large with sizeable state-owned enterprises and many industries reserved for public sector. On the other end of the spectrum is the orientation of industrial policy toward the expansion of private sector and market forces with diminishing importance of the public sector over time as evidenced in a recent shift in the industrial policy of Bangladesh. In most cases applicable to small LDCs, it is most likely that the dominance of the public sector is born of necessity because of the absence of a native entrepreneurial class and no option for a viable private sector.

No matter what the ultimate objectives the public sector economy attempts to achieve, the crux of the matter is the quality and value of the inputs the government can provide into the growth process as a driving force of industrialization. It is well known that at the early stages of development the administrative and managerial capacity of government tends to be utterly ill-equipped to implement detailed state controls and interventions required by an ambitious industrial development strategy. Cumbersome bureaucratic red tapes, inapptitude and incompetence are not uncommon, hampering and stunting industrial investments and progress.

It is beyond the scope of this paper to examine all aspects of the public sector economy as the ever-growing body of literature in this field attests to this fact. Instead, we shall attempt to assess the role

of public enterprises and their importance for formulating a viable strategy of industrialization for small LDCs. The term "public enterprises" means industrial enterprises owned and operated by government.

There are many compelling reasons for setting up public enterprises in the initial phase of industrialization. One of the most plausible arguments in favour of establishing public enterprises is, as underscored earlier, the virtual non-existence of an indigenous entrepreneurial and managerial cadre. This critical deficiency leaves only a few options open to small LDCs - state enterprises and foreign firms. The former is, of course, preferred on ideological grounds. The other route to launching an industrialization drive through direct foreign investments, particularly involving TNCs, has been extensively discussed earlier. However, the major weakness of state enterprises stems from the fact that competent civil servants, highly trained managers, and skilled manpower required to run state enterprises efficiently are also equally in short supply to begin with. Whether for government enterprises or private sector, managers and technical manpower need to be trained and increased steadily over time, starting from the zero base.

It is also often argued that public enterprises constitute an effective countervailing force to the monopoly power of private firms whose major preoccupation may be the exploitation of monopoly profits and market control. Particularly, a compelling case can be made for state enterprises, when the overriding importance of profit biases private firms towards consumption habits of the rich, exhibiting callous insensitivity to the needs of the poor. In sum, state enterprises can take an initiative in undertaking the basic needs oriented production for the neglected majority of people, thus correcting the imbalance in the composition and distribution of products created by the market.
It is, however, one thing to foster public enterprises for the purpose of gaining "commending heights" and another to rely on state enterprises to produce basic needs products. In this case, the correct industrial policy would be to promote rural industrialization based on small-scale village and cottage industries involving indigenous people and resources, since most of the basic needs of people can be provided by such small-scale

establishments, except for certain industrial activities requiring large-scale and capital intensive productions such as fertilizers, cement, petrochemicals, steel, etc., the domain on which state enterprises may conceivably concentrate.[8/]

Despite the much-touted virtue of self-reliance and self-management many countries harbour considerable disillusionment with how public enterprises have fared to date. Almost invariably, public enterprises in DGs have been plagued by the chronic inefficiency and operating losses, the consequences of which are wreaking havoc with the macro-economic equilibrium of DGs with their usually unlimited access to credits and scarce foreign exchanges of the central bank. Numerous factors contribute to the productive inefficiency of public enterprises in DGs. For instance, the World Bank study[28] lists among many other things: monopolistic practices sheltered behind high protective walls of trade restrictions; political patronage, cumbersome and ineffectual personnel policy, and over-staffing caused by politically expedient practices of making public enterprises as a major source of employment; the use of public enterprises as a policy instrument to advance social objectives such as equity, basic needs, and regional balance; difficult ventures requiring an extended learning period. However, the fundamental issue that goes right to the heart of the public enterprises is the malfunctioning of incentive systems endemic to the public sector. The disincentive factor permeates through all aspects of public enterprise operations. Workers do not see the direct link between work and reward as a result of inadequate personnel and administrative policies, thus eroding their work ethics. Managers tend to be less motivated to strive for excellence and often even frustrated because of the lack of managerial autonomy in such important decision-making areas as pricing, financing, employment and investment decisions. The practical difficulty of establishing accountability for their performance exacerbates this problem of sluggish productivity in the public enterprise. In addition, there is some danger that the public sector in general and public enterprises in particular may become a political instrument controlled by the rich and industrial class militating

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8/ The industrial policy of promoting cottage and village industries poses a difficult question of a conflict between efficiency and equity. It may be justified to promote small-scale and village industries at the expense of the modern industrial enterprises especially in industrial activities where their competitiveness and self-sufficiency is known to be eroding (e.g. clothing). Obviously, village and cottage industries suffer from lack of product development and quality control, marketing and promotional activities, limited managerial capacity and inadequate procurement procedures.

against the interests of the majority of the poor which they purport to serve.

In the light of many fundamental weaknesses inherent in public enterprises, it may be highly useful to recapitulate some of the remedies proposed by the World Bank Study [28]. They are:

(1) thorough pre-investment screening of large industrial projects, because of the limited possibilities for undoing a mistake through permitting bankruptcies;

(2) the need for circumscribing more narrowly and specifically the non-commercial objectives of a public enterprise, which are often used as a blanket justification for their poor performance;

(3) encouraging competition between public and private firms;

(4) exerting competitive pressures on public monopoly through liberal import policies;

(5) greater scope for managerial decision-making;

(6) joint ventures with private domestic and foreign firms;

(7) Auctioning off public enterprises to the private sector once the government's primary objective of underpinning an industrial base is accomplished as done in Korea, Japan, Argentina, Brazil and Singapore.

It may be worth reemphasizing the fundamental issue in the public sector economy in general and the public enterprise in particular. That is a conflict between efficiency and competitiveness on the one hand and other social objectives such as employment, equity and distribution. The crux of the matter is the question of how to achieve all these additional objectives without sacrificing too much the competitive position of the economy and the resource allocation efficiency.

Finally it is assumed throughout this lengthy discussion of a strategy of industrialization that small LDCs have relatively poor natural resource endowments. Of course, there are many exceptions to this assumption that industrialization of small LDCs starts from nearly the zero

base including natural resources. For instance, in Niger the increased exploitation of uranium that has taken place in the last four years have had a dramatic effect on the country's revenue capacity despite the fall in uranium prices. The government has been able to divert most of its uranium revenue, which will account for some 40 per cent of the plans' expenditures, the 1979-83 five year plan which calls for more than $3.5 billion in development projects.9/ Similarly, in Congo, oil represents over 50 per cent of export revenue, and that proportion is expected to increase dramatically as production increases. Therefore, oil is expected to continue as the Congo's economic mainstay in its ambitious programmes of self-sufficiency. In addition, according to the latest trade figures available, timber accounted for 24 per cent of Congo's export revenue, although the timber industry has suffered during the last few years partly as a result of the recession in the industrialized countries and also because of the depletion of resources.10/

It goes without saying that where such resources are available, a resource-based industrialization should take precedence over everything else and at the same time the exploitation of resources to their fullest extent will provide desperately needed, internally generated revenue to finance a programme of industrialization envisioned in this paper. Therefore, the natural resource endowment would substantially ease the financing problems of an industrialization strategy but would not alter the fundamental nature of the strategy question for small LDCs raised in this paper.

9/ International Herald Tribune (IHT); A special supplement, Niger, December 1980

10/IHT, a special supplement, Congo, December 31, 1981

SECTION 6: SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

6.1 Summary and Conclusions

It is a grim and undeniable reality that least developed countries (LDCs) as a whole are the poorest and most vulnerable among developing countries (DGs) with staggering problems of all kinds. Literally, they teeter precariously between subsistence and disaster.

Against this backdrop of the extreme urgency of LDCs' problems this paper sets out to search a viable strategy of industrial development for a subgroup of LDCs with small population and relatively poor resource endowments. The geographical focus is on Africa where the vast majority of the LDC group is concentrated. Our concentration on small LDCs arises from a methodological necessity to differentiate between small and large LDCs because the size of potential domestic markets circumscribes different development options and industrialization strategies.

Recent industrialization experiences in many DGs lend little support to the validity of the traditional theory of economic development based on the labour surplus and trickle-down argument. However, despite past unsuccessful industrialization in many DGs, the need for industrialization has never been called into question. What is in dispute is the industrialization strategy, the patterns of industrialization, and the industrial structure that has emerged.

Given the initial conditions of small LDCs characterized by the virtual non-existence of essential ingredients - capital, skilled labour, technical know-how, a wide range of physical and institutional infrastructure, and domestic markets of a sufficient size to exploit scale economies, the choice of appropriate manufacturing industries is rather limited. An early development of manufacturing should be predominantly labour-intensive and technologically simple, as applied to local materials and nondurable consumer goods for local consumption. At the same time, in industries competing with imports, a clear-cut industrial

policy has to be formulated as to how and how much they should be protected against foreign competition, bearing in mind the perenial dilemma that too much protection fosters inefficient industries and nurtures vested interests while too little "nip the young industries in the bud".

The initial pauperized conditions of small LDCs offer little option but import-substitution. It is, furthermore, through this early stage of import-substitution that protective measures can be deployed while skills are acquired, necessary infrastructure established and technological bases underpinned, all contributing to development of domestic industries and strengthening of their international competitiveness.

However, particularly where domestic markets are relatively small, the pursuit of import-substitution policies beyond the early stages of industrialization should be viewed with extreme caution, since further progress becomes extremely difficult once early import-substitution opportunities have been fully exploited. The past experiences of ISI have been anything but positive: dualism between modern sectors and small-scale local enterprises; crowding-out of small indigenous firms by the modern large-scale firms; foreign exchange drains, industrial overcapacity and consequent productive inefficiency; inability to generate sufficient employment; fostering regional, industrial and product imbalances; and misallocation of resources.

An efficient growth pattern of small LDCs envisaged in this paper is progression through successive stages of comparative advantages. Namely, the industrial specialization evolves gradually over time toward a highly sophisticated and complex form, beginning with unskilled, labour-intensive and low-technology industries, and next thrusting toward more capital-intensive industries, and finally climaxing with the development of highly skill-intensive and technology deepending industries. It was further maintained that ISI strategy is not an appropriate vehicle to carry small LDCs along this path except at the initial stages of industrialization. The logical step to be followed after the initial preparatory stage of ISI appears to be a switch to ELI strategy.

However, some of the current structure and patterns of DGs' manufactured

exports foreshadows a difficult road ahead for the LDCs' export drive. First, manufactured exports from all LDCs in terms of both trade among DGs and North-South trade are virtually nil. Second, a small number of DGs is dominating the Third World's manufactured exports. Third, although DGs' manufactured exports have not yet become sufficiently large in the aggregate to pose a threat to the manufacturing output and employment in industrialized countries, the current instability of the global economy caught at the throes of stagflation and resultant tightening of markets in DCs does not augur a better prospect for opening new export markets. Particularly, a rising tide of protectionist sentiments sweeping across industrialized countries is detrimental to the LDCs' export drive. Last but not least important, there is the problem of so-called "late-comers". The markets in the industrialized world for labour intensive manufactures were already pre-empted by a small number of DGs dominating this field, particularly Hong Kong, Taiwan, Singapore and South Korea.

Against this onerous background, the problem of market penetration to get off the ground the LDCs' export drive should receive the first priority consideration. A set of special measures to overcome these difficulties will be suggested in the following section dealing with policy recommendations.

As closely related to the above issue, the problem of marketing and promoting an array of manufactured goods cannot be overemphasized. In general, small LDCs are utterly lacking institutional infrastructure needed for export promotion and administrative capacity for formulating and implementing export promotion policies. An easy way out of this impasse is to engage foreign firms, usually TNCs, who have already established worldwide marketing networks. Despite many serious shortcomings and possible detriments to the host countries resulting from TNC activities, there appear to be few other alternatives but to launch ELI through collaboration with foreign partners in the initial stages of export promotion and later to concentrate on the smooth transfer of marketing know-how from foreign firms to the indigenous entrepreneurial group. This is particularly likely to be the case, because foreign investments

bring with them capital, technology, management, and marketing in one package, all of which small LDCs are conspicuously lacking. Undoubtedly, the government can play an important role in attracting foreign investments by offering a broad range of investment incentives.

In the past, TNC activities have been criticized on account of: (1) the foreign economic control that comes with foreign investments; (2) preoccupation with profit maximization and total insensitivity to the interests of the host country; (3) the demise of small native industries producing goods similar to those of TNCs; (4) forging a dual structure of the economy characterized by the parallel existence of modern capital intensive industries and low-technology, labour intensive local industries and with no linkages between them.

Recently, a new foreign investment, known as international subcontracting has emerged as a dominant force affecting the manufactured exports from the Third World. The key feature of international subcontracting is the DGs' manufactured exports to DCs as part of a complete organizational structure dominated by headquarter firms in the DCs, and their complete control over research, product design, advertising and marketing. Apparently, small DGs including LDCs are well suited for international subcontracting, since production is geared to serve the markets of the developed capitalist countries and hence the small internal market size is no longer a constraint. But the locational incidence of international subcontracting is more influenced by political stability of a country than economic considerations with its resultant concentration in a handful of countries such as Taiwan, Hong Kong, Sinapore and South Korea.

However, indiscriminate use of the international subcontracting may prove to be damaging to the industrialization efforts of the host country. First, no linkage between domestic consumption and production is likely to develop and subcontracting operations may increase economic dependence on DCs. Second, subcontracting operations may stymie indigenous skill development because of their use of low-skilled labour, producing goods which are highly standardized, technologically simple,

and requiring little overhead capital.

All these factors point to the urgent need for prudence and selectivity in the use of foreign investments and particularly TNCs as an instrument for industrialization, and for the expansion of scope for formulating industrial policies to circumscribe TNC operations so as to make them more sensitive to the needs of the host country. Above all, marshalling the resources of TNCs should be viewed as a temporary measure to initiate the industrialization process which would eventually lead to the development of self-generative industrial capacity of the host country to produce independently for the local market or direct exports.

The early import-substitution industries will usually encounter the problem of the domestic market saturation. At that point, exports are the only way out for such industries but they are in no position to compete effectively in the international market because of the structural ossifications fostered by the protectionist policies of ISI. The question of optimal timing of a switch from ISI to ELI is, therefore, critical. The transition is bound to cause considerable frictions among various economic groups, particularly redistributing income away from some of the existing import-substitution industries toward the newly favoured export groups. In order to cushion some of the transition shocks, the transition should be ideally timed to coincide with the prevalence of favourable socio-economic-political conditions, such as relative domestic political stability, good harvests, improved terms of trade, adequate foreign exchanges, etc.

The typical policy package for initiating a transition to export promotion entails (1) devaluation to adjust for differential rates of domestic and international inflation, (2) export inducements, (3) removal of tariff and other non-tariff barriers, and (4) elimination of some of the distortions in the market price system. Above all, what is needed more than anything else is the formulation of coherent and consistent policies for export promotion backed by a firm commitment from the government.

As some alternative to the TNC involvement in tapping potential overseas markets, small LDCs may seek technical assistance in export

promotion from more industrialized developing countries which established overseas markets, preferably in the form of joint ventures for export production. Technical co-operation among DGs of this sort receives an added importance in view of the fact that these more industrialized DGs may have to steer the course of industrialization away from traditional labour-intensive, low-technology manufactured exports to skill-intensive, high technology products as steadily rising wage levels affect adversely their competitiveness based on cheap labour. Also, it goes without saying that various international support measures enunciated in the New International Economic Order, New International Development Strategy, and Global Rounds of Negotiations may significantly facilitate the efforts of LDCs to industrialize through the export drive.

The question of appropriate technology arises, first and foremost, among many technological issues. Simply the advanced technology of the rich country is unsuited to the needs of the poor country, as extensively documented in the literature. In general, technology market is the sellers' market and DGs suffer from the lack of technical capacity to screen out appropriate technology, as evidenced by their indiscriminate adoptions. The problem of choosing appropriate technology is further complicated by the imperfection and complexity of the international market for industrial technology.

The dominance of public sector at the early stages of industrialization is likely to be unavoidable because of the absence of a native entrepreneurial class and no option for a viable private sector. However, critically important is the quality and the value of the inputs the government can provide into the growth process as a driving force of industrialization in view of inadequate administrative and managerial capacity of LDCs' governments to implement detailed state controls and interventions required by an ambitious industrial development strategy.

Among many compelling reasons for setting up public enterprises are: the virtual non-existence of an indigenous entrepreneurial class and managerial cadre; the need for creating an effective countervailing force to the monopoly power of private firms; undertaking the basic needs

oriented production for the neglected majority of the poor; and the need for undertaking large and capital intensive enterprises producing fertilizers, petrochemicals or steel, for which the private sector is not generally suited, let alone small-scale rural industries.

Despite the much-touted virtue of self-reliance and self-management, many countries harbour considerable disillusionment with how public enterprises have fared to date. Numerous factors contribute to the productive inefficiency of public enterprises. Yet the fundamental issue that goes right to the heart of the public enterprise is the malfunctioning of incentive systems. The disincentive factor permeates through all aspects of the public enterprise operations.

In addition, there is a conflict between efficiency and competitiveness on the one hand and other social objectives such as employment, equity and distribution. The crux of the matter is the question of how to achieve all these additional objectives without sacrificing too much the competitive position of the economy and the resource allocation efficiency.

Finally, it is important to note that the strategy set forth here is not so much guided by a certain political ideology or narrowly defined development doctrine as by pragmatic and eclectic approaches to solving the problems of small LDCs. Namely, whatever appears to be best and feasible among various industrial development strategies and policies for small LDCs is given close examination. As a result, the strategy attempts to draw upon TNC resources as well as elements of self-reliance and South-South cooperation as an important instrument of industrialization for small LDCs. But the idea of marshalling TNC resources may be totally unpalatable or even downright unacceptable to some self-reliance ideologue or collective self-reliance purist. In this regard, the strategy outlined here neither claims conceptual superiority over nor poses substantive disagreements with, except for the means to achieve the end, many variants of the self-reliance scheme, collective or otherwise. For instance, the proposed strategy can be readily dovetailed into a framework for South-South cooperation based on the organization of countervailing power by South on a political, economic and intellectual front to accelerate the process of change in the international order in favour of DGs[11/], or a strategy of fostering Third-

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11/ See Mahbub ul Haq [10]

World multinational enterprises as an indispensable instrument of self-reliant development.[12/] Undoubtedly, most of these proposals have ideological appeal to the Third World and even conceptual elegance. But the core of the problem is realism. The question of whether these proposals stand much of a chance is yet to be answered. Ultimately, successful industrialization strictly based on the South-South cooperation scheme depends on critically the creation of the political will for governmental negotiations to bring about convergence in the development policies of Third-World countries. Until these self-reliant strategies are sufficiently tested and proven as a workable and viable framework, the strategy put forward here may warrant serious consideration for further study.

6.2 Policy Recommendations

In order to overcome "late-comer" problems of small LDCs in launching their initial export drive, industrialized countries should open additional markets for labour-intensive manufactured exports specifically earmarked for small LDCs, preferably by granting some sort of favourable quotas to enable them to secure a foothold in the industrialized countries' markets.

In the same vein, exploiting shifting comparative advantages and dynamic international division of labour, rapidly industrializing countries with a dominant share of DGs' manufactured exports, move out of the traditional territory of labour-intensive manufactured exports and venture into more technologically advanced and skill-intensive products and product lines, and at the same time help small LDCs to anchor firmly their initial export markets for labour-intensive manufactures in industrialized countries which they previously penetrated. Further, rapidly industrializing DGs themselves could provide expanded market opportunities for small LDCs, as their factor intensity tips towards more capital in response to increasing wages and their inputs of labour-intensive goods may grow.

12/ See Ismail Sabri-Abdalla [22]

In addition, TNCs resources may be mobilized for industrialization of small LDCs, taking due consideration of sensitivity to the interests of the host country. In this regard, appropriate industrial policies must be formulated to harness the resources of TNCs to the mutual benefits of both host countries and TNCs. Particularly, it must be ensured that:

(1) the growth of native industries is not hamstrung by favourable government policies to attract foreign investments;

(2) and in some cases the growth of large-scale industries directly competing with local industries needs to be curbed, with a list of reserved industries drawn up for small-scale indigenous enterprises with local technologies; or

(3) alternatively, various support measures such as technical assistance and R + D should be extended to raise the productivity of the indigenous industries and hence strengthen their competitive position;

(4) linkage between modern large-scale enterprises and native small-scale ventures in the form of subcontracting is established. To establish such linkages, the international community must create pressure to force TNCs to relinquish part of their control over the economies of DGs on the one hand, and the product quality and productive efficiency of local enterprises must be substantially upgraded to meet the subcontracting requirements of modern enterprises on the other hand;

(5) where possible, the proportion of imported contents in the final product should be an important consideration in selecting foreign investments, although such selectivity is rather limited at the early stages of industrialization. Where such options are not available, conscious efforts must be made to increase local contents gradually, perhaps over a long period and primarily emphasizing the importance of skill development and acquisition of technical know-how by learning-by-doing;

(6) effective policy measure must be formulated and implemented to facilitate a gradual policy of reducing the incentive system favouring the capital intensive production of TNCs; increase intervention in the choice of technology; and expand local participation in product designs, promotion, marketing, insurance,

financing, and other distribution-related service activities.

Most important of all, given the prospect for keen competition among DGs for export markets, as the number of DGs which try to industrialize through the export drive multiplies sharply in the coming decade, it is imperative to regulate excessive competition among DGs for foreign investments, and to ensure smooth flows of export business to LDCs in an orderly manner. There is, therefore, the urgent need for putting together a coherent collective policy for promoting export industries of the small LDCs based on the close cooperation and agreed principles between LDCs.

The crucial importance of optimal timing in a switch from ISI to ELI strategy is amply underscored. Since the larger industries are protected from the external competition, the more difficult it comes to dislodge vested interest groups of protected industries from their grip over industrial policies and foreign trade regime, the transition policy must be planned and implemented well before these vested interest groups gain political dominance.

Most critical among many problems emerging during this transition period is the balance of payments crisis. It is, therefore, of paramount importance to provide adequate external financial supports which will enable small LDCs to tide them over this difficult transition period. In this context, the international community could effectively aid small LDCs by establishing a regional and/or international machinery for mobilizing external resources and providing necessary technical assistance specifically geared for this purpose.

One of the promising avenues of ELI for small LDCs is through economic and technical assistance from more industrialized DGs within established overseas markets. In view of shifting comparative advantages and resultant complementarity arising from different stages of specialization between small LDCs and more advanced DGs, more active economic cooperation must be fostered between these two groups. More advanced DGs with their extensive international marketing experiences and appropriate technology for DGs should launch joint ventures with small

LDCs for export production, turn to LDCs as new markets for their new industrial products, as new locations for their overseas investments, and as a source of raw materials, while small LDCs look to these more industrialized DGs as their potential markets for their labour-intensive manufactured goods. Furthermore, appropriate institutional mechanisms such as preferential trading arrangements and industrial complementation schemes need to be evolved to facilitate trade and joint production between small LDCs and more advanced DGs.

In technology areas, concentrated efforts at the global level should be directed at (1) opening up ready access to information on profitable alternative technologies by establishing regional institutes for research and dissemination of technology information; (2) helping LDCs to establish technology screening centre to sift prospective technology imports; and (3) negotiating international codes of conduct for technology transfer and TNC activities.

Concrete policy measures to promote technology transfer to small LDCs from more industrialized DGs must be formulated and implemented. LDCs will benefit from the relatively low costs of highly skilled labour, and technology which is more appropriate to the conditions of LDCs and at the same time available in the unpackaged form. However, very little is known about the experiences of technology transfer between more advanced DGs and LDCs. Further research should be undertaken to investigate the possibility of expanding technology transfer between these two groups.

In the area of industrial policies related to the public enterprise system, the major thrust should be directed at exposing gradually the public enterprise to the rigors of the market place in order to make it more incentive-oriented and efficiently run. In this context, it may be highly pertinent to recapitulate some of the policy recommendations made by the World Bank study [28]. They are:

(1) thorough pre-investment screening of large industrial projects, because of the limited possibilities for undoing a mistake through permitting bankruptcies;

(2) the need for circumscribing more narrowly and specifically the non-commercial objectives of a public enterprise, which are often used as a blanket justification for their poor performance;

(3) encouraging competition between public and private firms;

(4) exerting competitive pressures on public monopoly through liberal import policies;

(5) greater scope for managerial decision-marketing;

(6) joint ventures with private domestic and foreign firms;

(7) Auctioning off public enterprises to the private sector once the government's primary objective of underpinning an industrial base is accomplished.

Finally, some suggestions can be made as to ways in which policy recommendations set-forth here may be translated into a programme of action. A set of recommendations related to the economic and technical cooperation between LDCs and more advanced DGs in launching the LDCs' export drive may be introduced as specific agenda items at "solidarity meetings of ministers of industry on technical cooperation among developing countries", since the purpose of these meetings is to search ways in which the more advanced DGs can assist LDCs. Also, major findings and policy implications of this study may be discussed for further evaluation and elaboration with a view to formulating concrete policy measures to accelerate LDCs' industrialization at various international and regional fora such as the forthcoming UN Conference on the Least Developed Countries, and various regional meetings organized by the Economic Commission for Africa (ECA) and the Organization of African Unity (OAU).

On matters related to the North-South cooperation, UNIDO's System of Consultations in its present form can serve as an effective vehicle for the dialogue on industrial cooperation between DCs and LDCs. Through such an important medium of industrial cooperation, DCs can be urged to take decisive steps to commit an enlarged flow of external resources, both public and private, for the industrialization of LDCs. In this context, the recent German scheme introduced at the 35th Session of the General Assembly is quite notable as a step in the right direction.

Recognizing the important role of private foreign investments in DGs and direct cooperation between enterprises in DGs and DCs, German government has developed a number of instruments, such as tax deductions, investment credits, financing of professional training and consultancy services. The report underscores:

> "in particular, the German Development Corporation was created for the specific purpose of co-financing joint ventures between German enterprises and enterprises in developing countries. We have found such co-operation among enterprises to produce the best results when it comes to mobilizing private investors. But the active participation required from the private investor will come forth only - and hence I repeat once again what we have said many times before - if he is given sufficient guarantees within a stable and attractive environment. Without such guarantees, all efforts by governments and international organizations are bound to be meaningless."13/

Perhaps, private joint ventures of this kind may prove to become the catalyst of the industrialization of small LDCs at each progressive stage of specialization outlined in the strategy, starting from the development of labour-intensive import-substitution industries at the initial stage to a switch to export-oriented industrialization at a later stage. Therefore, the active participation of private investors in such joint endeavours should not only extend throughout the entire industrialized world, but also the programme should accord the highest priority to solving the problems of LDCs. In the meantime, small LDCs themselves should make conscious efforts to create a favourable investment climate for private foreign capitals. Such a direct fruitful dialogue between enterprises on both sides could be established through UNIDO System of Consultations or any other appropriate machineries, and the strategy mapped out here and policy recommendations arising therefrom should provide a proper framework for extra-national North-South negotiations and industrial development cooperation.

13/ Statement of the Delegation of the Federal Republic of Germany in the Second Committee, 25th Session of the General Assembly, Item 61, 27 October 1980, pp.7-9.

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UN LEAST DEVELOPED COUNTRIES

Africa:

1. Benin
2. Botswana
3. Burundi
4. Cape Verde
5. Central African Empire
6. Chad
7. Comores
8. Ethiopia
9. Gambia
10. Guinea
11. Lesotho
12. Malawi
13. Mali
14. Niger
15. Rwanda
16. Somalia
17. Sudan
18. Uganda
19. United Republic of Tanzania
20. Upper Volta

The Americas:

1. Haiti

Asia and the Pacific:

1. Afghanistan
2. Bangladesh
3. Bhutan
4. Laos
5. Maldives
6. Nepal
7. Samoa

Europe and Western Asia:

1. People's Democratic Republic of Yemen
2. Yemen Arab Republic

WORLD BANK LOW INCOME COUNTRIES

1. Bhutan
2. Cambodia
3. Lao PDR
4. Ethiopia
5. Mali
6. Bangladesh
7. Rwanda
8. Somalia
9. Upper Volta
10. Burma
11. Burundi
12. Chad
13. Nepal
14. Benin
15. Malawi
16. Zaire
17. Guinea
18. India
19. Vietnam
20. Afghanistan
21. Niger
22. Lesotho
23. Mozambique
24. Pakistan
25. Tanzania
26. Haiti
27. Madagascar
28. Sierra Leone
29. Sri Lanka
30. Central African Empire
31. Indonesia
32. Kenya
33. Uganda
34. Yemen Arab Republic