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UNIDO'S CONTRIBUTION TO THE IMPLEMENTATION OF THE SUBSTANTIAL NEW PROGRAMME OF ACTION FOR THE LEAST DEVELOPED COUNTRIES

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I. INTRODUCTION

Scope of the Paper

1. This paper is within the purview of General Assembly Resolution No. 42/177, which, *inter alia*: "Requests concerned organizations and bodies of the United Nations System to submit, before the first preparatory meeting, reports containing a review of the implementation of the Substantial New Programme of Action for the 1980s for the Least Developed Countries within their fields of competence and proposals for further action as input to the preparations for the Conference". Accordingly, the information in the following chapters covers UNIDO's contribution in the field of industry, and is within the ambit of the implementation of the Substantial New Programme of Action (SNPA) in the current decade. The term "industry" in this context means "manufacturing" except where otherwise stated.

2. The paper is explicatory and illustrative of UNIDO's technical assistance programmes and operational activities as well as analytical of the major problems facing the LDCs in the field of industry, to the solution of which the technical assistance is meant to contribute. In this connexion, the synoptic general background, the Substantial New Programme of Action itself, the information on the general economic situation and the performance of the manufacturing sector, constitute the basis and rationale of the technical assistance programmes and activities being pursued by UNIDO in consonance with the implementation of the Substantial New Programme of Action (SNPA) in the 1980s.

General Background

3. In its report on "Special Measures in favour of the Least Developed Among the Developing Countries" (Document ID/B/349 dated 19 May 1971), the Ad Hoc Group of Experts appointed by UNCTAD put 25 countries in the category of the least developed among the developing countries, in accordance with a number of set criteria. Each of these criteria signifies one of the deep seated problems facing these countries as well as the root causes of their severe underdevelopment. The removal of these constraints is a prerequisite to industrialization and economic development of the LDCs. One of the criteria set is that the share of manufacturing in the total GDP is 10 per cent or less. The Committee, therefore, suggested in the last sentence of para. 33 of its report: "It is essential to make the best use of available resources and to increase, through financial and technical assistance, the ability of the authorities concerned to establish the appropriate priorities and formulate sound projects where possible, within the framework of an integral developing plan". The Committee also advised, among other things: "In framing industrialization policies, efforts must be made to establish industries in the least developed countries which provide an appropriate basis for accelerating economic growth and their rural development programmes".

4. The Least Developed Countries have been caught up in a period of uncertainties, instability and difficult adjustment for the world economy which have so far characterized the 1980s. All developing countries have been especially vulnerable to the multiple external adverse factors that occurred towards the end of the 1970s and the beginning of the 1980s. These factors include: failing commodity prices and the consequent worsening of the terms

of trade for exporters of primary commodities, especially the LDCs; steep rises in the price of oil (though it subsequently fell in 1985); the recession of 1980-1982 in the developed countries, followed by a sluggish growth and increased protectionist measures; the volatility in the exchange rates and in the international financial markets; and increases in the real effective interest rates that have invalidated the assumptions under which large external debts had been contracted in earlier years[1/].

5. At the same time, the external indebtedness of the developing countries as a whole had exceeded one trillion United States dollars by the end of 1987, while the international flow of credit and capital, so abundant in the 1970s, has been drastically reduced. The LDCs have been very hard hit. In these countries, the share of manufacturing value added has been declining as a direct outcome of the shrinking world markets and the worsening terms of trade for their traditional exports. The problem is acute in the Sub-Saharan Africa where at least 27 LDCs are situated. At present the Least Developed Countries in Africa are struggling for economic survival rather than for economic growth and consolidation. The current increase of population, which is estimated at 2.5 - 3.0 per cent is far greater than that of economic growth. Food production has severely suffered from natural disasters such as: drought and locusts, plus civil wars, with the result that population growth has outstripped food production, thereby forcing a large number of countries in the region to depend on imports. Indeed, the LDCs have been helpless in the face of the international recession, the collapse of primary commodity prices, and the debt servicing payments, which are a heavy burden.

1/ United Nations Industrial Development Organization, PBC.4/3 of 28 May 1988 Draft Medium Term Plan 1990-1995

6. One other disturbing characteristic of the Least Developed Countries is their over-dependence on external sources for a large proportion of their requirements, including food, in some cases. Another characteristic is the openness of the economies of these countries, and therefore their vulnerability to external forces and shocks. This is a consequence of their entire dependence on a very narrow range of export commodities the prices of which fluctuate violently and frequently, while simultaneously they rely heavily on imported manufactures, the prices of which keep on rising, thereby causing large adverse terms of trade against them. The adverse balances of trade and insuffícent capital inflows have led to chronic balance of payments deficits and depletions of foreign exchange reserves. As a consequence, LDCs have been unable to purchase imported capital goods, raw materials, spare parts and components and other inputs required for the implementation of their plans and operation of manufacturing enterprises. Hence the stagnation and negative growths in the manufacturing and other sectors. The reduction of overdependence calls for co-operative and concerted efforts.

7. Consequent upon this overdependence, the cherished objective of promoting accelerating self-reliant and self-sustaining industrialization in the Least Developed Countries has so far either receded to the distant future, or become a pipe dream, at least for the time being. This is more so in view of the fact that there are factors which come into play which tend to compel governments to accord lower priority to industrial development. Some are natural and others are man-created. They include: floods, droughts, locusts, civil wars, internal political strife; etc. A large number of the least developed countries have been affected by at least one of these disasters, which have resulted in the destruction of whatever little physical

infrastructure there might have been, and a diversion of the meagre skilled human and financial resources to wars efforts and national disasters. Needless to stress that these factors have exacerbated the incapabilities of the LDCs to mobilize both domestic and external resources for industrial development and economic growth.

8. Since 1971, the number of the Least Developed Countries (LDCs) has gradually increased to 41 in 1988. This is ipso facto proof of the inadequacy of the measures taken at various levels for ameliorating the economic and social conditions in the countries under consideration. At present, there is ample evidence to show that the conditions have, with very few exceptions, deteriorated; and the formidable problems with which the LDCs have been all along fraught, continue almost unabated. Indeed where some little improvement is noticeable, that is a reflection of an alleviation and not a removal of the problems. The eradication of the major constraints therefore continue to exercise the minds of policymakers, strategists, planners and donors of financial and technical assistance. Strategies, policies, plans and programmes that would have efficacious impact on the retardatory factors have to be formulated and implemented relentlessly, with expeditious adjustments that may be necessitated by the prevailing conditions. Indeed, the adoption of the Substantial New Programme of Action (SNPA) by the United Nations Conference on the Least Developed Countries is one of the examples of the fresh approaches. Similarly, the programmes and operational activities of the United Nations Industrial Development Organization (UNIDO) are so designed as to facilitate and support industrialization, social and economic progress in the countries under review.

It is, therefore, deemed logical to consider UNIDO's contributions to the implementation of the Substantial New Programme of Action (SNPA) in relation to each of the major problems which are hindering economic development and social progress in the LDCs. It is hoped that this background will provide a clear perspective of the rationale of UNIDO's assistance in relation to the implementation of the Substantial New Programme of Action (SNPA) in the manufacturing sector.

9. It should be appreciated that, weak as these sovereign states may be, the powers of determining their political, economic and social course and direction rest with their respective governments. Therefore countries formulate and implement their strategies, policies, plans and programmes and determine their priorities in accordance with their idealogies and objectives. Under the circumstances, the efficaciousness of the generally supplemental and catalytic role of UNIDO and other donors of financial and technical assistance, is dependent upon what each government does. There have been instances where government policies and action have been disruptive and detrimental to industrialization and economic growth. The fragility of the administrative machinery in these countries also reduces the capabilities of these countries to act expeditiously and effectively to meet the exigent needs. Indeed, this has had an adverse effect on the volume, timing and delivery of financial and technical assistance.

10. Basic to the effectiveness of the donors' financial and technical assistance is the capacity of each least developed country to absorb expeditiously the available assistance. There is evidence to prove that

efforts to mobilize external resources have had little or no effect mainly because of the fundamental structure constraints in the economies of these countries and the critical shortage of human resources with the necessary capabilities for identifying and formulating sound industrial projects and programmes which could attract this external assistance and capital required. The expansion of the absorptive capacities of each least developed country is an essential feature of the implementation of the Substantial New Programme of Action (SNPA). Accordingly, UNIDO's programmes and operational activities have all along been aiming at promoting the required capabilities.

The Substantial New Programme of Action (SNPA) for the Least Developed Countries (LDCs)

11. The Substantial New Programme of Action (SNPA) for the Least Developed Countries (LDCs) highlights the major problems facing each sector of the economies of the LDCs, and contains recommendations for action to be taken at national, sub-regional, regional and international levels for the removal of the problems, and invites UN Agencies and other international Organizations and individual governments to contribute. For the manufacturing industry, which forms UNIDO's ordinary domain, SNPA calls upon LDCs to increase their growth of manufacturing output to an overall annual rate of at least 9 per cent. To this end, the LDCs are particularly requested to embark upon:

- Development of agro-based and agro-support industries, and, on-the-spot processing as appropriate;

- Build up medium and light industries to meet the growth of their population for essential consumer goods;

- Encourage and improve productivity in small-scale and cottage industries, utilizing where appropriate non-governmental organizations, through the introduction of appropriate technology and through the supply of credit and raw materials and marketing arrangements;

- Encourage the establishment of basic industries with indigenous resources, where possible.

12. The implementation of all these and other programmes, which are relevant or incidental to manufacturing, encompasses the solution of a variety of major problems which are hampering industrialization in the LDCs. These problems and UNIDO's technical assistance programmes and operational activities designed to contribute to the solutions, are discussed in the following chapters of this paper.

Economic situation in the LDCs

13. Table 1 provides information on population and GDP MVA growth for 37 LDCs. During the first half of the 1980s population growth in the LDCs averaged about 2.6 per cent per annum, while the overall growth of GDP stood at an average of 2 - 3 per cent per annum, compared with an average of 3 per cent

per annum in the 1970s. On average the income per capita grew by only 0.5 - 0.8 per cent per annum during the same period[2/]. The per capita GDP of the developing countries as a whole grew by 3 per cent per annum between 1970 and 1980; that of the developed market economies of Eastern Europe by 4.4 per cent per annum. In 1985, after successive declines during the preceding years, per capita averaged at US$ 200 in 1985 (which is only about 2 per cent of the average per capita GDP of the developed market economy countries).

14. During the period 1981-1986, at least 18 Least Developed Countries (of which 13 are in Sub-Saharan Africa), showed clear signs of negative growth of industrial output or growth of industrial performance inferior to overall economic growth, while the pace of industrialization in at least 10 other least developed countries stagnated. By 1987, the 40 least developed countries had an estimated combined GDP of US$ 102 billion, and a population of 400 million. The average income per capita was therefore less than US$ 260 of which only US$ 20 was derived from industrial activities. Much of the poor performance is attributable to adverse external factors and economic and financial mismanagement in the LDCs. Hence the uphill task of implementing the Substantial New Programme of Action.

2/ UNIDO Report on "Progress of Industrialization in the Least Developed Countries", GC.2/16 of 15 September 1987

15. This unsatisfactory performance was widespread; and about 32 countries saw declines in the per capita GDP; (provisional data for 1986 indicates a halt in the per capita GDP for the LDC group as a whole[3/]). The poor performance of the agricultural sector, which contributes a dominant part of the GDP in the LDCs, during the first four years of the 1980s and the adverse world market in primary commodity prices, were responsible for the decline in the overall economic growth performance. Notable among the causes of poor performance in agriculture in some African LDCs was the droughts and wars. During the period 1980-1985 Botswana and Maldives were, however, able to attain growth rates higher than the target of 7.2 per cent per annum established by the SNPA. Their success is attributable to exports of diamonds by Botswana and expansion of services in tourism in the Maldives. Bhutan and Cape Verde came close to the target by attaining annual rates of GDP growth of 7 per cent, while Lao PDR, Uganda and Yemen achieved rates of 5 per cent. Six other countries attained rates of nearly 4 per cent, while the remaining majority barely kept their output ahead of population growth, or experienced declines in their per capita GDP[4/].

3/ United Nations Conference on Trade and Development, The Least Developed Countries Report, United Nations Publication, Sales No. E.87.II.D.12, Page 7

4/ United Nations Conference of Trade and Development Report 1987 Ibid Chapter 1. This report observes that the number of LDCs registering negative GDP growth rates has tended to decline; and so did the number of countries with GDP growth rates below population increases; from over 20 in early 1980 to 13 in 1985 and 9 in 1986.

Agriculture

16. Agriculture is the main stay of the Least Developed Countries, for the sector contributes more than 50 per cent of the GDP; it also accounts for (in most countries, if not all) a predominant part of foreign exchange earnings and employment. The manufacturing sector depends on agriculture for the supply of raw materials and the income of farmers is vitally important for the sale of local manufactured goods in domestic markets. The sector has failed to grow at such rates and to such levels as would maintain its beneficial role in the economies of the least developed countries. The unsatisfactory performance is attributable to: poor weather conditions, civil wars and other natural disasters; bad pricing and export/import policies; shortage of capital and inputs such as fertilizers, lack of improved kinds of seeds, the failure to introduce and apply new methods and techniques of farming; lack of transport facilities; shortage of human resources with the necessary capabilities for upgrading agriculture from being significantly a subsistence activity to full fledged commercial operations.

17. The deterioration continued in the early 1980s. It is estimated that agricultural production increased during the first four years of the 1980s at an annual average rate of 1.4 per cent, compared to 2.2 and 1.9 per cent in the 1960s and the 1970s, respectively. By contrast population grew at 2.6 per cent per annum during the same period[5/].

5/ UNIDO Paper GC.2/16 of 15 September 1987, Ibid Para. 6

External Sector

18. With regard to the external sector, despite a small increase in the volume of exports during the 1980s, the LDCs received less because the value of their exports decreased from US$ 8,0 billion in 1980 to US$ 7,6 billion in 1986. The increase in the volume of exports was attributed mainly to a recovery in the production and exports of coffee in a few countries to the level of the 1970s and to a sharp increase of diamond exports by Botswana. The volume of world merchandise trade is estimated to have increased by 3.5 per cent; but little of this recovery is passed to the developing countries. In fact, commodity prices have been at their lowest level in real terms. UNCTD estimates that prices of primary commodities fell to 21 per cent below the 1979 - 1981 average, and dropped to another 8 per cent in the first half of 1985[6/].

19. Since the LDCs are heavily relying on non-fuel primary commodities, they have been the hardest hit. Only 19 LDCs managed to expand the value of their exports during the first five years of the 1980s by a positive annual average rate of growth compared to 35 countries in the 1970s. On the other hand, the number of LDCs with declining value of exports rose from 2 to 18 during the same periods. By 1985, prices of imported capital goods and other

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6/ UNCTAD, The Least Developed Countries Report 1987, Ibid, para. 13 Section C manufactures declined to the slight relief of the LDCs. Current trends and medium term outlook, however, paint a gloomy picture for the LDCs regarding export prices of non-fuel primary commodities. During the 1980-85 period, the result of falling export earnings and other foreign exchange constraints compelled half of the LDCs to reduce imports of capital and consumer goods, thereby foregoing industrial development and economic growth[7/]. Therefore, diversification of production and exports of LDCs have become urgent and imperative. The establishment of export-oriented industries is no doubt vitally essential in these vicissitudes.

Savings and Investments

20. With regard to investment and savings, it is only in 1980-81 that the LDCs as a group achieve a growth rate of 3.6 per cent in investments. In 22 countries, the rate of investment dropped by 2.5 per cent during 1980-1985. For the countries as a group, the share of gross capital formation declined by 4 per cent from 16 per cent in 1980 to 12 per cent in 1985. Consequently, the per capita level of investment was a meagre U ` 30 in 1985; this does not

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7/ UNCTAD REPORT Ibid. The IMF is quoted as having projected that real commodity prices in 1991 will be about one-third below their level in 1980 augur well for the medium term growth of the LDCs[8/]. Since saving is a function of income, the ability to save in the LDCs was greatly reduced with the drop in income caused by adverse critical world conditions and the disasters referred to in paragraph 16 of this paper. Governments resorted to reducing consumption and further savings. Lack of accumulated savings meant an inevitable decline in investment. One of the herculean tasks facing each LDC is to institute such measures as will stimulate production, income, savings and investment.

The Balance of Payments

21. During the first three years of the 1980s, the LDCs experienced a current account deficit of some US$ 8,3 billion, which was reduced to US$ 6,7 billion from 1983, through reductions in imports of consumer and capital goods. The reduction of net capital flows since 1982 meant that the LDCs can no longer finance such large current account deficits. The balance of interest receipts and payments deteriorated markedly in the 1980s[9/]. The decrease in receipts is attributed to the drop in reserve holdings and the lower amounts of interest

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8/ UNCTAD 1987 Report. Ibid, Section B. Page 9.
Table 4 of the same report shows investments in the LDCs for the years 1980-1987, while Table 6 depicts gross domestic savings as a percentage of investment for the same period

9/ Table 11 UNCTAD Report 1987, Ibid shows the balance of any payments, for the years 1980-1986 earned, while interest payments increased at the same time. Since, as already explained, the recurrent revenue has been on many occasions inadequate to meet recurrent expenditures, the LDCs found vent for solution in mainly curtailing investment[10/].

External Debt

22. The debt servicing burden is so severe that it is draining funds of the LDCs which would otherwise be available for financing development. UNCTAD has clearly highlighted the debt burden in which the LDCs are encapsulated[11/]. The predominant part of the debt is owed to governments and multilateral institutions. It is estimated that the total external debt of the LDCs stood at US$ 41.7 billion in 1985, the equivalent of 50 per cent of the LDCs combined GDP. This long and medium term debt service payment, and estimated interest payments on short term debts exceeded US$ 2,2 billion in 1985, which is equivalent to about a quarter of the LDCs combined exports of goods and

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10/ UNIDO Report GC.2/16, Ibid p.2, para. 5

11/ UNCTAD Report 1987, Ibid, Section B.3., page 63 services. This represents a crippling burden, bearing in mind that these countries can on the average finance only half of their imports with their total export earnings. Debt servicings (excluding the purchases to the IMF) rose by almost 18 per cent in 1985 following a rise of 23 per cent in 1984, and after stagnating at about US$ 1.5 billion in 1981 - 1983. Estimates put debt servicing to US$ 2.5 billion in 1986, and it is projected that payments falling due in the second half of the 1980s indicate markedly higher levels (should there be no rescheduling or other kinds of debt reliefs[12/]). The debt conundrum dictates that ways and means must be devised to mobilize an increasing amount of external funds and at the same time invest more in such expert-oriented productive sectors as will positively and appreciably increase foreign exchange earnings. This prominently points to the urgency of identifying and formulating projects and programmes in order to meet this exigent requirement.

12/ UNCTAD Report 1987, Ibid, Tables 23 and 24 provide detailed information on debt and debt servicing by source and terms of lending; and debt indicators by country for the years 1982 - 1985.

Manufacturing

23. The manufacturing sector in the LDCs is still at its initial stage, contributing not more than 10 per cent to the GDP, taking the LDC as a group. This is one of the criteria laid down by the United Nations Committee for Development Planning for the creation of this category of countries. In 1986 the share of manufacturing value added (MVA) in GDP was only 7.25 per cent, compared with an average rate of 8.6 per cent per annum for the period 1970 - 1980, which was less than half of that of other developing countries (18.6 per cent) for the same period. The growth rate of MVA declined from an average of 4.2 per cent per annum for the years 1970 - 1980 to 2.84 per cent in 1986, compared to the estimated population growth of 2.67 per cent. So there was stagnation in the manufacturing sector. By contrast, despite the prevailing economic difficulties, the industrial sector in other developing countries has been growing at a rate of 5.4 per cent per annum since 1973. Some progress has, however, been made by a number of LDCs. Malawi, for instance, achieved a growth rate of 4.09 per cent in 1984, and the share of MVA to GDP was 14.4 per cent. Malawi's success is attributed to: high level of remuneration, a high-level capacity utilization and the facility to import spare parts and technical know-how. Nepal, Maldives, Yemen, Democratic Yemen and Rwanda are the other LDCs which registered growth in GDP and MVA[13/].

13/ UNIDO paper GC.2/16, Ibid para 8.

24. The structure of the manufacturing sector in the LDCs is characterized by a predominance of plants processing primary products and consumer goods such as: food, beverages, tobacco and textiles, which account for 70 per cent of the total manufacturing output; with metal-based engineering industries contributing a meagre six per cent. Another characteristic of the sector is the lack of inter-connection and inter-dependency among manufacturing enterprises. In other words, the absence of forward and backward inter-linkages are vividly noticeable. This is ipso facto a manifestation of the embryonic stage of industrialization in the LDCs. Even the linkage between manufacturing and agriculture, which is a logical consequence of industrialization at the stage, when agro-based industries constitute the basis, is too loose or even negligible. Failure to establish strong linkages has been due to a variety of reasons which have constrained agricultural production of food and raw materials for local processing.

25. In the absence of the self-sustaining agriculture, the symbiotic relation between agriculture and manufacturing, which is essential to further expansion in both sectors (and others), the performances of the LDCs in both sectors have been dismal and disappointing. The establishment and expansion of agro-based and allied industries is dependent upon the supply of raw materials by the agricultural sector to local plants for processing, and the income of farmers from sales of their products with which they can purchase locally processed food and other products. On the other hand local manufacturing plants could produce such inputs as fertilizers and pesticides, agricultural implements, etc., demanded by local farmers. As long as these are still imported, then the linkage between manufacturing and agriculture will continue to be more accentuated between local agriculture and overseas industries than it is between local agriculture and manufacturing.

26. The other salient feature of manufacturing in the LDCs is the under-utilization of installed capacity in varying proportions. For example, it is estimated that in Somalia only about 25 per cent of the installed capacity is being utilized; while in Guinea-Bissau 30 per cent, Uganda and Tanzania 35 per cent, and Sierra Leone 51 per cent. Some of the causes for under-utilization of installed capacity are: wrong project formulation and appraisal, failure of the agricultural sector to produce the required raw materials and to absorb locally manufactured agricultural implements and inputs; shortage of financial resources, especially foreign exchange to import the necessary capital goods such as machinery and equipment, spares and components, raw materials and inputs; shortage of human resources with the necessary capabilities to provide managerial, scientific and technical skills, etc. The question of excess installed capacities is central to the rehabilitation exercise which is being undertaken by UNIDO, and which is discussed later in this paper.

27. Another aspect of industrial development in LDCs relates to the pursuit of the strategy of import substitution as the basis for establishing local manufacturing facilities; this is more pronounced in the African least developed countries. In addition, states, as producers and purchasers of locally manufactured goods, have been playing a leading role in industrial production; and stress has often been put on large projects, as opposed to medium- and small ones[14/]. Consequently, the industrial sector is heavily

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14/ UNIDO paper GC.2/16 Ibid para 14

dependent on imports for raw materials, spares and components, inputs and capital goods for the implementation of the import substitution strategy, etc. Thus LDCs are too vulnerable because of over-dependence on external supply of these items and sizeable external funds for financing their weak manufacturing enterprises. It is also noteworthy that the strategy of import substitution usually does not lead to foreign exchange savings since it stimulates the demand for imported capital goods and intermediate industrial products, at least initially. It is also emphasized that although industry is an engine for economic growth when manufacturing reaches the stage of producin· ıpital and intermediary goods, the LDCs have not yet reached that stage. The scarcity of foreign capital points to the need for devising ways and means for increasing the mobilization of external resources, as well as restructure the sector by, inter alia, moving away from concentration on only import substitution, to export-led industries as well.

28. There is a host of problems which are hindering or decelerating industrial development in the LDCs. The major ones include: Scarcity of local raw materials; shortage of human resources with the necessary skills and capabilities for industrial development; critical lack of financial resources; inadequate institutional and physical infrastructure; and the small size of individual domestic markets. UNIDO's technical assistance programmes are so designed as to contribute to the solution of these and other problems. The kind, volume and timing of the delivery of assistance depend upon UNIDO's resources and its mandates on the one hand, and the capacity of the

individual countries or group of countries to absorb the assistance as expeditiously as possible during any given period. In its contribution to the implementation of the Substantial New Programme of Action (SNPA), UNIDO has provided assistance amounting to US$ 139,7 million since 1980 to 1987. The projects supported cover various fields and sectors of industry including: agro-industries, chemical industries, metallurgical industries and engineering industries. The industries represent large, medium- and small-scale and cottage industries and handicraft, as well as various industrial institutions and services. More details of UNIDO's technical assistance for the years 1980 - 1987 is provided in Table 2. The following chapters discuss some of the major problems in association with UNIDO's contribution to such measures as are intended to constitute solutions.

II. CRITICAL SHORTAGE OF HUMAN RESOURCES WITH THE NECESSARY CAPABILITIES

29. The critical shortage of nationals with the necessary capabilities in the middle and upper cadres in every sector of the LDCs economies is one of the single major intractable problems. Industrialization requires an increasing supply of qualified labour in technology, finance, accountancy, marketing, management, scientists, engineers and entrepreneurs. The lack of various skills is significantly reducing the LDC's financial and technical assistance

absorptive capacity. Sound management is indispensable to the success of industrial development and to the general running of an economy. The debilitating effect of the problem of the lack of sufficiently qualified personnel vividly manifests itself in the utter weaknesses to be found in: financial management, industrial planning; project identification, formulation, appraisal and implementation; establishment and effective management of institutional and physical infrastructure. These and other matters are taken up later in this paper.

30. The need for management and technical skills in the LDCs is insatiable and continues to grow. Human resource development is both a precondition for and a consequence of industrialization. Industrialization could provide a strong stimulus to the training of the labour force. But the stagnation or decline of the manufacturing sector in most of the LDCs reduces local training facilities and opportunities in number and substance. But on the other hand, there is not an adequate supply of human resources that could initiate, push and support accelerating self-reliant and self-sustaining industrial development in the LDCs. The quality of a country's human resources enhances its competitive capacity in manufacturing as well as equips it with the capabilities to shift and adjust expeditiously to rapidly changing technological, scientific and market conditions in the international economic set-up. It has all along been appreciated that an education system encompassing: formal general education and institutions, professional institutions and intra-enterprise training, is vitally important to various institutional infrastructures, services, research and development and other supportive activities to industrial production. These are policy issues which are normally dependent upon government wishes and decisions.

31. The supply of the required capabilities in sufficiently large numbers is a long process which calls for the formulation and effective implementation of long-term training and technical assistance programmes, including: assessment of current and future industrial human resources requirements; arrangements for formal and informal training and facilities, at home and abroad; designation of relevant and adequate syllabi, curricula and courses to meet the needs; and the most rational utilization of the limited available resources. This would cover the training of high and medium level industrial personnel and self-employed entrepreneurs. It should be borne in mind that the terms and conditions of service are vitally important to success in the recruitment, retention and motivation of staff. There are many instances where recruitment, promotion, transfers and dismissals have been dictated by considerations other than qualification and efficiency. This has led to large staff turnovers and perpetual debilitation of staff morale, frustration of motivation and initiative in very many LDCs. Despite training, these large staff turnovers have perpetuated the scarcity and its attendant constraints. Needless, therefore, to stress that the shortage of qualified personnel remains an enormous perennial constraint.

32. Within the framework of its training programme, UNIDO has been paying special attention to the least developed countries to enable them to reduce significantly and effectiv-ly the shortage of qualified nationals in all important cadres. To this end UNIDO's programmes encompass: in-plant or in-service training, training under overseas fellowships; specially organized short local training courses, subregional, regional and interregional training courses and seminars for participants from the LDCs and other developing countries. For example, from January 1986 to 30 June 1°87, altogether 372 persons from African and Arab States were provided with groups and individual

training opportunities. Of this total 194 trainees, or almost 53 per cent were beneficiaries from African and Arab LDCs. The training is being carried out in various industrial subsectors such as: chemicals, small-scale foundry operations, management and quality control, agro-industries and iron and steel. UNIDO also assigns its staff on short-term basis to work in various fields in the LDCs, as managers etc., who at the same time train local counterparts in their fields of specialization. It is however, found that in many instances, the trainees are not posted to, or made to stay fairly long at the positions or fields in which they were trained, for a number of reasons. This has, no doubt, a severe adverse effect on the training efforts and the supply and utilization of the scarce human resources. Governments would enhance their benefits from the training being offered if they would try to ensure that staff changes are not so frequent as to nullify the objectives of training.

33. The fellowship programme continues to respond to the needs of individual countries since it is tailor-made for managerial and technical personnel of industrial projects. Training covers a variety of industrial fields and aspects. Among them, the areas of energy management and industrial maintenance and repairs have been receiving special attention. The training needs of financial institutions, small-scale industries, and agro-industries have been among the priority areas. In training for upgrading the entrepreneurial skills of small-scale industrialists, close attention is being paid to the development and upgrading of the skills of women in order to facilitate their effective participation in industrial activities.

III. FINANCIAL CONSTRAINTS

34. As indicated earlier on in this paper, the Least Developed Countries have been facing endemic budgetary and balance of payments deficits, excessive external indebtedness with its attendant crippling servicing, and critical shortage of foreign exchange. Higher energy prices and the decline in the demand for commodity exports of the LDCs are some of the causes of lack of sufficient financial resources. It is therefore exceedingly difficult for the LDCs to finance their development projects. Consequently, these countries have become increasingly dependent on external funds for financing their industrial and other investments. With particular regard to foreign resources, the international capital flow of ODA ceased to grow in real terms and the flow of commercial loans is now uncommon because many LDCs are seen as uncreditworthy. Simultaneously, concessional financial assistance has tended to decline. This has led to the deterioration of the balance of payments situation. Hence, the curtailment of investments, and consumption of some imported goods to some extent. This situation necessitates the formulation policies and programmes for the effective mobilization of both domestic and external capital resources for industry.

35. Saving is a function of income; the higher the income *ceteris paribus*, the more is the ability to save.[15/]. Saving, apart from the level of income,

15/ World Industry Since 1960: Progress and Prospects, UN Publication Sales No. E.79.II.B.3, Chapter IX, page 301. It is estimated that among countries with less than a per capita income of US$ 265 per annum, savings averaged only 6.8 of GNP during the period 1960-1978, compared with 12.9 percent for the lower middle income group and 16.8 per cent for the upper middle income group.

is dependent upon, or is influenced by, such other factors as: a desire to provide security for the future; existence of institutions, machineries, securities and other profitable opportunities to attract and stimulate savings; consumption habits; political and economic stability; etc. These elements generally constitute the willingness to save. The least developed countries are low income economies and have yet to establish strong and effective institutions, as well as identify and formulate such industrial investment opportunities as could arouse profit and security expectations to the potential investors and financiers.

36. The ability and willingness to save suffer because of the fact that a large section of the population in the LDCs is still living outside the monetized sector. Production for subsistence purposes continue, therefore, to constrain the generation of income, stimulation of savings and attraction of investments. Public sector savings could play a major role in financing industrial development. Governments raise revenue and savings from that revenue through direct and indirect taxes and levies on exports of agricultural and other commodities. In the LDCs where the taxable capacity is still too low, the tax revenue being raised is negligible in relation to the financial needs. Equally the levies being imposed on export commodities do not only raise inadequate funds but they also tend to be disincentive to the producers. Thus, raising funds through public sector savings for financing industrial development in the LDCs is a forlorn quest. It is imperative for the LDCs to introduce such policies and policy measures as would effectively stimulate and mobilize both domestic and external foreign capital for financing industrial development. The policies and policy measures must of necessity aim at removing the constraints which are currently militating against savings and investments in industry.

37. With regard to domestic capital, governments have established various schemes and institutions to encourage savings from individuals and such enterprises as national insurance corporations, etc. Although some successes have been registered in the mobilization of domestic savings, relatively little has gone to investments in industrial projects, most have gone to agriculture and real estate. This has been partly due to lack of sound investment opportunities in the industrial sector. Some household savings either remain dormant or are invested in low priority areas which carry merely social prestige.

38. In the case of public enterprises, savings have depended mainly on government revenue for the initial capital. In most LDCs, large enterprises are owned by the states. Since the states have been experiencing critical shortage of financial resources, they could not provide adequate funds to the para-statal bodies and public enterprises. On the other hand, the publicly-owned enterprises could, for various reasons, not make enough profits from which they could ploughback into additional investments. Indeed, the general inefficiency of corporations in the LDCs has led to losses instead of profits. There is evidence to confirm that many corporations owe their survival to state subsidies, where the state itself has funds to pay subventions (The proposal for the privatization of public corporations has won support in recent years in the hope that it would enhance efficiency, increased profits, savings and investments).

39. Turning to the mobilization of external financial resources, it is not easy to identify precisely the proportion of net official external financial flows that goes to the industrial sector. A recent UNIDO study concluded that the proportion was around 40 per cent for finance in the form of export

credits (imports of capital goods for industry) about 30 per cent as direct private foreign investment, and 15 per cent for private bank lending, and the average of between 5 to 10 per cent for non-concessional loans from multilateral development finance institutions. The crises of the 1980s have made the mobilization of external capital difficult, for they have led to certain shifts in the policies adopted by major trade credit agencies. Private creditors have tended to impose restrictions on the credit terms for the purchase of spare parts and materials, thus making the implementation of rehabilitation programmes more cumbersome.16/

40. Success in the mobilization of external financial resources depends to a great extent on the existence of efficient local intermediaries, industrial enterprises and economically and commercially sound specific industrial projects or investment opportunities. At present, intermediaries and institutions of this kind either do not exist or are so weak that they do not serve the purpose. Nor are the investment opportunities available. It is therefore essential for the LDCs to establish and manage sound private and public enterprises with which foreign potential investors and financiers could collaborate in the financing of industrial projects through equity participation, loans, lines of credit, suppliers credit, etc. It is emphasized that these institutions and the role they play in attracting external funds for investment in industrial activities largely depends on the host government's policies and, of course, the economic viability of the proposed investment opportunities, projects or programmes.

16/ United Nations Industrial Development Organization, Draft Medium-Term Plan 1990-1995, PBC.4/3 of 25 May 1988, para 13, p.12.

41. One of the ways UNIDO is contributing to the mobilization and channelling of financial resources into industrial production (domestic and foreign) is by way of identifying and formulating economically and commercially attractive industrial projects. At the same time, UNIDO has been assisting the LDCs (and other developing countries) in the location of prospective foreign investors and financiers, through its investment promotion meetings and investment promotion centres which were established in major cities in Europe, North America and Asia for that purpose. Timely, assistance is also available to the LDCs in the identification of investment opportunities and the preparation of pre-investment and feasibility studies. The subject of project promotion is taken up again in this paper because of its central role in the industrialization process. It is here touched upon because of its close relationship with the mobilization of funds for investment in industrial activities and operations.

IV. INSTITUTIONAL INFRASTRUCTURE AND INDUSTRIAL ENTERPRISES

42. The existence of a strong and efficient institutional infrastructure is essential to industrial development. One of the main constraints to industrialization and economic growth in the LDCs is the absence of a well organized, managed and co-ordinated institutional infrastructure, which could operate as a unified service, with industrial institutions reinforcing each or one another's operations rather than counteracting them.

43. Publicly-owned industrial and financial institutions, where they exist in the LDCs, were established for a variety of reasons ranging from political, ideological, economic and social considerations. Some of the common motives for the creation of public enterprises include: a desire to exercise national control over key industries and services; to ensure balanced regional development; bringing foreign-owned enterprises into national ownership; promoting rapid expansion of output, employment and training; locating industrial production facilities in areas where private investors may be unwilling to go, to rescue or revive ailing industries, etc. Thus, publicly-owned institutions constitute the instruments with which governments execute their policies to attain these and other objectives.

44. Unfortunately, there is a noticeable absence of a number of important institutions in the LDCs and where they exist, they are so weak that they do not achieve the objectives for which they were established. The weaknesses in the organization, management and operations are mainly due to critical shortage of managerial, technical and scientific skills and financial resources. In the circumstances, a number of services which are crucial to

industrial development remain unrendered. Thus the yawning gap between the supply of and the demand for these services has got to be bridged if there is to be progress in the industrialization of the LDCs, particularly on account of the fact that public industrial enterprises fill the positions of owners, managers, financiers and, in general, promoters of industrial investment and enterprises. Indeed institutions are the tools or instruments for the execution of national industrial strategies and policies. Hence the important role which UNIDO and other organizations have been playing in the establishment and strengthening of the organization and management ofindividual institutions and the institutional infrastructure as a whole in order to make them capable of rendering efficiently and effectively a variety of services on a continuous, coordinated and self-reinforcing basis in support of industrialization.

45. Thus, while the programmes for the establishment, expansion, rationalization and management of manufacturing enterprises are being considered, attention is simultaneously focused on the types of institutions required for performing certain functions or rendering such services as are crucial to the success of the industrialization programmes. These services or functions include:

(1) formulation, execution, appraisal and adjustment of long-term industrial plans and strategies, programmes and specific industrial projects;

(2) establishment of agro-industrial research centres;

(3) intensification of manpower development programmes and professional training of management staff;

(4) provision of investment promotion services by undertaking studies with a view to identifying economically sound projects and programmes and thereafter carrying out detailed feasibility studies and formulation, appraisal and promotion of industrial projects into operational enterprises;

(5) establishment of financial institutions and credit facilities for mobilizing domestic and external capital for industrial development;

(6) stimulation of research, technology adaptation and innovation, collection, compilation and storage of industrial information;

(7) standardization and quality-control services;

(8) direction of industrial development both in public and private sectors in the expansion of industries;

(9) establishment and strengthening of machineries and institutions to regulate, supervise and monitor foreign investment and promote the transfer of technology;

(10) technical assistance towards the development of institutions for professional and middle management training, for research laboratories, and for the financing of integrated training programmes and scientific research;

(11) sub-regional and inter-regional action towards the creation of necessary institutional machinery for consultation and coordination to obtain better terms for acquisition of technology, expertise, licences, and equipment from other countries, as well as to coordinate production so that each cooperating state gets an appropriate set of industries and then has regional cross trade in manufactures; and

(12) strengthening of institutions to promote economic cooperation.

46. It should be appreciated that the totality of industrial institutions should form a programme of activities to constitute a service infrastructure and work as a comprehensive industrial service support system. By and large, the nature and number of institutions are determined by the strategies and policies of each government. The relevant institutions should provide for the needs of the existing as well as potential industrial enterprises. Hence their creation, objectives, structure and programmes have to be measured against their utility in accomplishing those objectives. The programmes have to strengthen or establish the linkages between policy and institutions - institutional programmes will have to conform to overall national and industrial policies or represent the cost-effective means of implementing those policies.

47. The private sector institutions are severely limited in the mobilization of domestic and foreign financial resources; very often, the most likely profitable projects are allocated to the public sector enterprises, leaving private investors to promote medium- and small-scale industries, most of which just manage to make little profit or to break even. Because of their generally low profitability and their individual small sizes, their ability to attract external resources tends to be drastically reduced. At the same time, the shortage of domestic funds and foreign exchange prevent them from procuring adequate local and imported raw materials, inputs and capital goods for the efficient production. There are, however, instances where sound private enterprises have successfully attracted external equity, loans and credits. Otherwise lack of financial resources is militating continuously against private industrial enterprises.

48. Recently, however, the failure of public enterprises in the attainment of the objectives for which they were established, the critical shortage of funds and qualified personnel have compelled governments to turn to the private sector, or privatization, as it is popularly called. Progress in privatization depends, among other things, on the economic and commercial viability of the enterprise concerned, the existence of private entrepreneurs and financial resources with which to purchase and manage the enterprise to be privatized. The chances of selling enterprises with no prospects of making profits are very limited, particularly in some LDCs where a number of projects were wrongly designed and appraised. In any case, privatization calls for an evaluation of the machinery and equipment and other assets and liabilities of the enterprise to be sold to private investors. No doubt assistance to LDCs, which are lacking qualified personnel to undertake the evaluations, would be required, especially in cases where external financial resources are involved.

49. By and large, the private participation in industrial development depends upon government policy and attitude towards private ownership. The capacity of private enterprises to attract and absorb additional capital is, in the first, instance facilitated or constrained by, inter alia:

- the type and size of industrial opportunities in which private enterprises are permitted to participate;
- capital and credit facilities available to local private potential investors;
- the extent to which foreign equity participation in private industrial enterprises is permitted;
- the number and quality of local entrepreneurs in terms of managerial and technical capabilities;

- the extent to which local private entrepreneurs are allowed to negotiate and raise foreign funds directly, etc;
- the terms and conditions on which foreign contributions are offered;
- government incentives policy, including the right to adequate compensation in case of nationalization; repatriation of capital and dividends; duty free entry of imported capital goods, raw materials and other inputs.

50. The foregoing limitations are also applicable to the general subject of mobilization of foreign resources. Here, however, we are viewing the limitations in the context of the role of the private sector and the potentials for privatization where circumstances demand it. In the main, the shortage of local entrepreneurs in the private sector is one of the major factors constraining the capital absorptive capacity in the LDCs. Consequently private establishments have remained small because of the absence of managerial and technical skills required to run large enterprises. In addition, there is so far an individualistic approach to private participation in industry, so that private industrial establishments tend to remain small personal concerns. There is a need for the establishment of companies and partnerships through which small individual savings could be pooled, by way of subscriptions to the share capital of companies or partnerships, for investment in industrial projects and programmes.

51. The discussion so far has been focusing mainly on publicly-owned institutions or industrial and financial enterprises. The national institutional infrastructure also encompasses private enterprises. In many LDCs, stress has been put on public enterprises at, to a certain extent, the

expense of the emergence of strong private industrial enterprises, for the reasons outlined in paragraph 47. Despite that, private industrial entrepreneurs exist in the form of companies, partnerships, industrial co-operatives and individuals.

52. UNIDO's assistance has been aiming at contributing to efforts to establish the necessary institutions, where they do not exist; or to reinforce and strengthen the organization, management and operations of existing ones. To this end, international staff have been made available to institutions in the LDCs on long and short-term basis not only to perform managerial and technical duties but also to train their local counterparts who would subsequently take over the responsibilities. Fellowships overseas and training courses and seminars have been organized, from time to time, for senior members of staff from institutions in the LDCs. Indeed, UNIDO's contribution to the establishment and management of an effectively co-ordinated and efficient institutional infrastructure in the LDCs has covered a very wide spectrum of activities which are commensurate with the various objectives and responsibilities of individual institutions. UNIDO has been providing technical assistance to requesting LDCs for the establishment or strengthening of such institutions as render crucial services to the promotion of sustained and balanced industrial growth.

53. In appreciation of the central role of industrial planning in the promotion of a balanced, self-sustaining and self-reliant accelerating industrialization, UNIDO has been assisting institutions in the LDCs dealing with industrial planning in assessing the progress of and constraints upon industrial development at sectoral and subsectoral levels; identification of

subsectors with developing potential and comparative advantages; formulation of industrial plans; industrial restructuring; formulation or modification of industrial policies and policy measures; strengthening of technical and institutional capabilities for industrial planning and development.

54. One of the many examples of UNIDO's assistance to LDCs in the field of industrial planning was the help provided to Afghanistan's Department of Industries, Energy and Commercialization of the State Planning Committee in the execution and monitoring of the general industrial plans and in formulating the industrial chapter of the country's five year development plan. Assistance was also provided to, among other LDCs, Mali, Sierra Leone, Bhutan, Maldives, Guinea and Nepal in identifying priority industrial subsectors or branches that offer opportunities for the establishment of competitive industries, in formulating plans for restructuring; in designing coherent and efficient policy and institutional framework that would promote industrial investment. The few countries mentioned here are by no means exhaustive of the number of LDCs to which similar assistance has been provided.

V. PROJECT PROMOTION, TECHNOLOGY, REHABILITATION AND ENVIRONMENT

55. Project promotion, technology, rehabilitation and environment are so closely related in the industrialization process that it is logical to discuss them in one section of the paper. Since project formulation constitutes one of the cores and essence of industrialization, references are inevitably made to it in other chapters. Here it is considered in the context of its role in facilitating or retarding industrial development in the Least Developed Countries.

Project Promotion

56. In this context, project promotion entails a number of activities which are undertaken to transform an industrial development opportunity into an operational productive facility, plant or enterprise. Project promotion, therefore, essentially encompasses the identification, formulation, appraisal and a launching of an industrial project into an enterprise, factory or plant to produce a specified product or products. The identification and formulation of project proposals are dependent upon the availability of natural resources, and people with the necessary capabilities for performing these tasks. On the other hand, the financing and actual launching of the project into an industrial productive going concern requires the existence of local and/or foreign investors. The promotional activities accordingly cover the identification and persuasion of that group of people.

57. It is recognized that one of the major problems facing a number of the Least Developed Countries is the severe paucity of natural resources; or lack of knowledge of what resource endowments exist. To reveal their actual resources, be they mineral or others, the LDCs have to undertake studies and surveys in order that they may be able to compile inventories. In the absence of these inventories, the least developed countries cannot establish local resource-based industries.

58. To ameliorate the situation, UNIDO has been providing assistance to requesting countries in such fields as industrial surveys, project identification, formulation and investment promotion. For the establishment

of comprehensive inventories of their resources, UNIDO prepared industrial surveys or studies for these countries aimed at enabling them to establish resource-based industries to utilize increasingly their resource endowments[17/].

59. The least developed countries have also failed to promote investments in manufacturing because of the chronic dearth of economically sound and commercially viable industrial projects. This is a consequence of the critical shortage of personnel with the necessary capabilities for identifying, formulation, appraising and launching industrial projects on a systematic and continuous basis.

60. With regard to programmes and project formulation, UNIDO has been sending to LDCs project formulation missions in order to establish realistic pipelines of projects and technical assistance programmes. The projects have covered, inter alia: agricultural machinery and tools and other products of agro-based and allied industries; pharmaceutical industries; manufacture of equipment for the utilization of conventional solar energy; and the integration of women in the industrialization process. For example, in 1986, UNIDO fielded 15 project formulation missions and three during the first six months of 1986, which were

17/ Para 296 of the Declaration and Plan of Action on Industrialization of Developing Countries and International Co-operation adopted at the Third General Conference of UNIDO, in New Delhi, 21 January to 9 February 1980, requested, as a special measure assistance to LDCs in the establishment of comprehensive inventories of their resources, particularly alternative energy sources, and prepare industrial surveys of these countries to support endogenous exploitation of their resources.

financed from a special project financed from various sources. UNIDO assists countries in preparing industrial programmes for inclusion in their individual Country Programme (1986-1990). In this connexion, for example, 14 countries were assisted by programming mission or UNIDO's Senior Industrial Development Field Advisors (SIDFAs) during 1986 and up to June 1987.

61. Another aspect of importance in the project promotion is that of feasibility studies. UNIDO has provided experts to LDCs to undertake pre-feasibility and detailed feasibility studies which have resulted in the emergence of a number of economically sound projects which could attract investments. It may be of interest to note that in view of the exorbitant cost of oil to LDCs, pre-feasibility studies were undertaken by UNIDO in Guinea and Guinea-Bissau to promote power generations from locally available renewable resources. Both projects have proved technically and economically viable. Training of candidates from LDCs in techniques and methods of carrying out feasibility studies and project appraisal, and support to institution building continues with the aim of strengthening national capabilities in the field of pre-feasibility and feasibility studies. UNIDO's assistance in feasibility studies has developed an approach for a preliminary assessment that examines such elements as financial analysis, marketing, project design, management and labour skills, engineering and technology, equipment, maintenance and quality control and the socio-economic and environmental impact of the project being examined.

62. The least developed countries have also continued to be accorded high priority in other programmes of UNIDO, such as the System of Consultation and Investment Promotion. For instance, UNIDO financed the participation of representatives of the LDCs in the Consultations organized in 1982 on:

agricultural machinery, iron and steel, industrial financing and training of industrial manpower. Representatives acquired up-to-date knowledge of the fields covered and established useful contacts with prospective collaborators. Similar assistance was repeated in subsequent years.

63. Under its Investment Promotion Programme, UNIDO is providing information and advisory services to several least developed countries in order to facilitate their contacts with potential investors in the developed and other developing countries. Assistance is made available in the identification and preparation of industrial projects for submission to investment promotion meetings (which are organized at national, subregional, regional and interregional levels) and UNIDO's Investment Promotion Centres which were established for that purpose in some of the major cities in Europe, Asia and North America. The industrial investment proposals for which collaborators are usually sought include rehabilitation, modernization, expansion of existing facilities and the establishment of new ones. The contribution which UNIDO seeks from foreign investors on behalf of the LDCs (and other developing countries) include: marketing skills and knowledge of specific markets, plant and equipment, technical know-how and licenses, management skills, training of local staff and financial resources in the form of equity, loans, lines of credit and suppliers' credits.

64. One of the fairly recent examples is the national investment promotion meeting which was organized for Bangladesh in January 1987. UNIDO identified and prepared 135 industrial projects which were presented and discussed at the meeting. The meeting was attended by 150 representatives of developed countries, financial institutions and private investors. So far 97 memoranda of understanding have been signed between local sponsors of the projects and

foreign potential investors. During a regional investment promotion meeting held in Harare, Zimbabwe, in November 1987, a portfolio of 112 industrial projects was promoted. These projects were identified from nine member countries of the Southern African Development Co-ordination Conference (SADCC) of which four are Least Developed Countries. Similarly, eleven LDCs out of 16 participating developing countries of Africa, attended the Seventh Industrial Forum for West Africa, which was convened in Dakar, Senegal, in December 1986. Altogether, 220 projects were submitted to potential investors. A similar Industrial Forum was organized in Mauritius in May 1987; and of the eight participating developing countries of East Africa and the Indian Ocean Islands, three were LDCs. A total number of 183 projects were circulated to foreign prospective investors for financing. UNIDO has also been providing training in investment promotion to people from LDCs and other developing countries. Under this programme, investment promotion officials from LDCs were given on-the-job orientation in the various investment promotion services of UNIDO. These are just but a few examples from the period 1986 to June 1987.

Technology

65. Project formulations and designs entail a detailed examination of the technologies and processes to be applied and their advantages over other available alternatives. Indeed the technology and process selected must be suitable to and commensurate with the local conditions, policies and plans. This micro-level of technology is vitally important to the success of the project itself and the industrial development efforts of the LDCs in general.

66. However, due to various reasons, including the absence of human resources with the necessary capabilities, the formulation, evaluation, designing and planning of industrial projects have not had sufficient in-depth examination. Consequently, many projects which are technically and economically unsound were actually started and located in the wrong places. Very often, the poor estimates of the relation between the scale of production, the technology, the supply of raw materials and other inputs, and the excess of the installed capacity over the available and potential marketing avenues have meant a lot of waste of the scarce capital. In Guinea-Bissau, for instance, a plant's installed capacity for processing ground-nuts is more than double the amount of ground nuts produced. Many examples can be cited from other LDCs to illustrate the excess installed capacity arising from inadequate study of details of the technical aspects of projects.

67. At the macro-level, effective institutions for supporting the development of technological capabilities are non-existent or are still in a rudimentary form. In view of the rapid advancement of science and technology which entails the introduction of new machinery and equipment, new techniques and methods of production and new products or substitutes, it is essential for the LDCs to establish a technology base and to upgrade their technological capabilities. There must be industrial research and training facilities, as well as machineries for the exchange or acquisition of technological information.

68. UNIDO has, during and before the 1980s, been providing assistance to LDCs in: formulation of strategies, policies and plans for the acquisition and development of technology; establishment of local institutions to support the development and acquisition of technology; and the establishment of the Technology Information Exchange System (TIES), and other machineries, for the collection, storage and dissemination of information of use to LDCs and other developing countries. In this connexion, UNIDO's Industrial and Technological Information Bank (INTIB) continued to collect and pass information to LDCs. The Bank also participated in seminars on industrial information, one held in Arusha (Tanzania) at the Eastern and Southern Africa Management Institute and another one in Bordeaux (France). Participants from some LDCs at these seminars benefited greatly. UNIDO's assistance to LDCs also includes the establishment of national industrial research institutes or facilities. Sudan has been one of the beneficiaries in this respect.

Rehabilitation

69. As observed earlier in this paper, one of the salient features of the manufacturing sectors of the LDCs is the existence of excess installed capacity, in many cases averaging at 65 per cent. This is mainly attributed, as indicated in the foregoing paragraphs, to the incapability of LDCs to undertake detailed feasibility studies, including in-depth appraisal of the economic and technical aspects, before investment decisions in specific industrial projects are reached. Apart from excess installed capacity, many industrial plants are inoperative because of, *inter alia*: bad initial planning, mismanagement, obsolete technologies; changing demand and market conditions for the products; wrong location of plants; shortage of foreign

exchange to purchase new plants, equipment, spares and components, raw materials and other inputs; shortage of funds and capabilities for keeping the plant under constant maintenance and repair, etc. Since most of the industrial enterprises in the LDCs are in the public sector, it is reasonable to observe that a large number of them might have been established because of considerations other than economic ones.

70. The identification and elimination of the problems causing industrial plants either to stop operating completely or to operate with excess installed capacity could be obviously easy in some cases but very complex in others, depending upon the nature, magnitude and effect of the root causes. Where, for example, there was no economic and technical justification for the establishment of a plant which subsequently became inoperative, it would not be easy to rehabilitate that plant. Similarly, if rehabilitation entails privatization, private investors would not take over a factory which is too antiquated and which offers no prospects of profitability within a reasonable time. There are industrial plants which could possibly be put to alternative production while others are beyond rehabilitation. They may need dismantling or complete replacement. No doubt, the rehabilitation, in many cases, calls for massive financial resources which the LDCs do not readily have at present.

71. UNIDO's contribution to rehabilitation has been aimed at not only excess capacity and dormant plants but also at ensuring that the industrial problem does not reappear, at least not in the near future. Missions have been sent to requesting LDCs to attend to specific problems at the factory level which may be the root causes of excess capacity and stoppages of production. To improve efficiency and reduce excess capacity in the public sector, advice is

given on ways and means of ameliorating production. Rehabilitative activities are also carried out in LDCs under a multi-disciplinary approach through which short-term advisory services in different subsectors are rendered. In Malawi, for example, advice was given on the adoption and implementation of a structural adjustment plan associated with the project providing industrial advisory services, while in Somalia assistance continued to be provided for the improvement of industrial enterprises through the installation of preventive maintenance systems and through new engineering and innovations. Ethiopia and Uganda, are some of the very many LDCs where UNIDO's experts have attended to plant maintenance and repairs, production management, etc., that were intended to increase capacity utilization and rehabilitation.

72. Another activity has been the examination of new industrial possibilities in association with the rehabilitation of existing factories, which was introduced in Burkina Faso in an effort to upgrade industrial productive facilities. Projects aimed at rehabilitation of public sector industrial enterprises in Malawi, Uganda and Somalia put emphasis on improving management structures, production and financial management systems through direct assistance and on-the-job training. UNIDO is also attaching great importance to the establishment and upgrading of local consultancies as an important feature of rehabilitation in the LDCs as well as in other developing countries. Local consultancies could provide immediate, on-the-spot long-term technical and managerial advice and at the same time upgrade skills at national and plant levels. The consultancy established in Mali is one of the cases in point. Another example is the comprehensive assistance provided to

Bangladesh in the management of the Chittagong Dry Docks and Heavy Steel Structural Works, which doubled ship repairs orders. A reorganization of a Silversmith Workers Co-oprative in Botswana with UNIDO's assistance also resulted in a significant improvement of the financial situation.

Environment

73. It is appreciated that industrialization inevitably antagonizes nature and environment. Industry has adverse effect on the environment because of the various pollutants it emits or disposes of in other forms, and the damage it inflicts on nature and ecology as a result of the extraction of natural resources (minerals, forest resources, animal associated materials etc) which are used as raw materials and inputs for the manufacturing of industrial goods. Although industrialization is in its nascent stage in the least developed countries, and the problem of industrial pollution is not as acute as it is in relatively advanced countries, it is advisable to take environment into account when drawing up industrial development plans for the LDCs in order to abviate deep problems in future. In view of the importance of environment to health, UNIDO has, through its industrial planning and other programmes, been advising LDCs on the proper location of industries, control of pollution and the disposal of effluence.

VI. SMALL- AND MEDIUM-SCALE INDUSTRIES AND RURAL INDUSTRIALIZATION

74. With generally low incomes, small individual markets and critical shortage of financial resources and qualified personnel, small-scale and cottage industries offer, to a great extent, promising opportunities to LDCs[18/]. It is estimated that in the developing countries as a whole, the formal small-scale and medium-scale industry sector typically contributes some 10 to 20 per cent of industrial output, and absorbs 40 to 60 per cent of industrial output. (It is observed that the proportion would be much greater if 'informal' industrial activities were included[19/]) There are no estimations of the contribution of small- and medium-scale industries to industrial output and employment in the LDCs. The exploitation of the potentials offered by small- and medium-scale industries, in terms of their contribution to the diversification and strengthening of the base for industrialization, entails prior solution of a number of difficulties, especially on account of the fragility of the import substitution industries in the LDCs many of which are heavily dependent on foreign capital goods, imported raw materials, other intermediary goods and managerial and technical resources.

18/ There is not a universally recognized definition of a small-scale industry. It is up to each government to adopt its own criteria for determining what a small-scale industry is, according to those criteria.

19/ UNIDO Paper PBC.4/3, 25 May 1988, Ibid P.13 para 21.

75. Some of the main problems which have been militating against the emergency of small-scale industrial entrepreneurs include: lack of technical skills and managerial capabilities, shortage of marketing avenues and market development techniques, shortage of financial resources and credit facilities and lack of raw materials. In the main, the objective of UNIDO's assistance has been to contribute to the formulation and execution of such measures as would alleviate and remove these and other constraints.

76. It should be appreciated that the development of small-scale and medium industries is affected by the legal system governing property, contractual rights and obligations, regulatory and promotional policies such as: credit, tax incentives, subsidies, quantitative and non-quantitative protection and labour laws, as well as the macro-economic adjustment policies introduced to counteract external imbalances. All these necessitate consultations, co-ordination and reviews. But in many cases, there has been very little success in the amelioration of the problems facing existing and potential small-scale, medium-scale and cottage industries and handicrafts. Much of the lack of significant progress in attributable to: lack or weakness of organizations or machineries for co-ordinating matters relating to the development of small-scale, medium and cottage industries; selection of wrong entrepreneurs who cannot benefit from the facilities offered, absence or inadequacy of extension services; overall problems facing LDCs, etc.

77. UNIDO has all along been contributing to the promotion of small-scale and cottage industries by posting international staff to appropriate Ministries or national organizations to provide the required managerial and technical

capabilities. In this connection, UNIDO's staff have assisted in the establishment of organizations or machineries for co-ordinating all activitiesconcerning small-scale and cottage industries and handicrafts, identification of projects for promotion in the small-scale sector, provision of extension services, the training of local officials through the organization of local courses, or through counterpart arrangements, etc.

78. Advice has also been provided to the LDCs on appropriate policy measures and strategies to be adopted for the development of small-scale industries. In Yemen, for instance, UNIDO's advice was instrumental to the establishment in 1982 of the Small Industries Development Organization (SIDO); while assistance was provided in 1985 to a number of LDCs, including Ethiopia, Niger and Vanuatu, in institution building, for improving the capacity of institutions dealing with small-scale and cottage industries, to provide a wide range of technical services and facilities required for expeditiously and effectively promoting those industries. In Ethiopia, expertise, training and equipment were provided to the Handicraft and Small Industry Development Agency (HASIDA) central workshop and to pilot industrial co-operatives which developed prototype tools and implements for use by Ethiopian artisans. In Niger, further assistance was provided to the Office de promotion de l'entreprise nigérienne (OPEN) in increasing the capacity to service small- and medium-scale industries in giving support to the establishment of new productive units and the provision of extension services. This project included a large training component: on-the-job training for OPEN extension service officers was provided by experts; and study tour programme for 12 OPEN officials and private entrepreneurs.

79. Assistance for institution-building continues to be one of the main features of UNIDO's programme for the development of small-scale, medium and cottage industries. In this connection, Burundi, Niger, Ethiopia, Chad, Rwanda and Sierra Leone are some of the LDCs which have benefited. UNIDO also attaches great importance in its technical assistance programmes on multibranch industrial research and service institutions, for they play a crucial role in the development of small- and medium-scale industries. Thus the promotion of R + D capabilities and activities aimed at facilitating the acquisition, transfer and development of technology are integral elements of the comprehensive package of assistance to the small- and medium-scale industries sector. As an illustration, the continuing technical assistance to the Tanzanian Industrial Research and Development Organization (TIRDO) focused recently mainly on the chemical department and in particular on putting into operation the pilot plant for the production of caustic soda and precipitated calcium carbonate. Other fields which have attracted UNIDO's assistance to LDCs are: standardization, quality control and metrology. The National Bureau of Standards in Nepal is one of the institutions which has been assisted in these areas.

Industrial Estates

80. In the overall programmes for the development of small-scale and cottage industries, industrial estates have, in some LDCs, been major features. Industrial estates have been used to tap and upgrade existing rudimentary skills by bringing together small operators and artisans in a central place, where they can be provided with a variety of facilities. The estates provide such common facilities as: water and energy, machinery, equipment, tools or implements, workshops at low rentals, raw materials, marketing, finance and credits, training, etc.

81. Studies and surveys covering a large number of developing countries have revealed various factors which have facilitated or hampered the success of industrial estates in accordance with their defined objectives[20/]. These are largely twofold: those relating to an estate as an entity charged with the responsibility of promoting industrial entrepreneurs; and others directly relating to the failure of individuals to avail themselves of the facilities and opportunities which are provided for their advancement.

82. Industrial Estates have made little or no headway because of, inter alia: general unfavourable economic conditions (some of which are external); location of industrial estate without due regard to economic factors; weaknesses in the organization, management and operation of the estates; lack of adequate government support regarding financial resources, common services, production facilities, marketing, etc.; selection of wrong tenants; etc. It is also noticeable that individual small-scale industrial operations have been hampered by socio-cultural factors, lack of elementary education and calibre to absorb new technical methods of production. Consequently, many industrial estates have been operating below their capacity in terms of occupancy; or are full simply because a large number of occupants are carrying on activities which have no direct bearing on the development of small-scale industries. Thus the absence of an effective group of small-scale industrialists continues almost unabated to retard success of industrial estates in many Least Developed Countries, especially in Africa.

20/ UNIDO Publication: "The Effectiveness of Industrial Estates in Developing Countries", ID/216, Sales No.: E.78.II.B.11, Chapter IV enumerates various factors based on specific case studies in Asia, Africa and Latin America which contribute to the success of Industrial Estates.

83. UNIDO's contribution to the removal of the constraints to the promotion, management and operations of industrial estates has been varied. It has included: Supply of short- and long-term staff to assist LDCs in strengthening the effectiveness of existing industrial estates; undertaking comprehensive studies to establish the feasibility of planned estates, training of local managers of estates as well as tenants in such subjects as: accounting, stock-keeping and procurement, marketing, (in addition to other matters concerning general programmes for promoting small-scale industries as a whole).

Rural Industrialization

84. In their policies of arresting the influx of rural migrants into urban areas in search of employment, governments of the LDCs have been trying to establish industries in rural areas. This could also have an added advantage of extending the benefits of industrialization to rural population. Small-scale industries are vitally important in this respect. Since, however, rural industrialization is not confined to small-scale industries, programmes are being formulated and implemented in such a way as to leave options open for all sizes of industrial enterprises using various technologies in manufacturing, with due attention being drawn to those technologies which are adaptable to rural skills and encourage maximum utilization of local human and raw material resources, especially women and seasonal involuntary underemployed.

85. Rural industrialization is largely conditioned by the availability of entrepreneurial skills, finance and credit facilities as well as raw materials and infrastructural facilities. Close co-operation and harmonization of the formulation and implementation of plans among Ministries are of paramount importance, especially co-operation between the Ministries responsible for industry and agriculture. The co-ordinational role of the national planning system is of central significance to the development of industries in rural areas.

86. Experience has revealed that the development of industries in rural areas is a comprehensive package of assistance designed to increase the performance of rural industries. Extension services are indispensable in this respect[21/]. In particular, rural industrial development programmes require:

- assistance or facilities for project identification and formulation;
- identification of entrepreneurs whose capabilities could be upgraded through training;
- development of marketing facilities or avenues, especially for small-scale and cottage industries and handicrafts;
- the development or introduction of such technologies as suit rural conditions;
- the training of entrepreneurs, managers, supervisers and workers in rural industries, and those officials whose task is to assist them, including the provision of craft apprentinceship facilities, on-the-job training, etc.

21/ UNIDO Publication "Industrialization and Rural Development", ID/215, Sales No.E.78.II.B.10, provides a comprehensive review of the strategies, policies, plans and programmes concerning the development of industries in rural areas in developing countries.

- finance and credit facilities
- establishment of vertical and horizontal co-ordination of sectoral institutions concerned with the nature and patterns of industrialization in rural areas, in terms of the setting of objectives, planning and implementation of rural industrialization strategies, policies and programmes.

87. In its overall industrial programmes and operational activities, UNIDO has provided assistance to LDCs in project identification and formulation, training of small-scale industrial entrepreneurs and cottage industry operators and employees in various cadres of industrial enterprises and institutions, establishment and management of various institutions, some of which deal directly with rural industrialization matters, formulation and implementation of strategies, policies, plans and programmes which have a close bearing to rural industrialization, and indeed its agro-industries programme is closely associated with the question of rural industries. Some of the LDCs which have benefited include: Burundi, the Comoros, Rwanda and Tanzania. UNIDO is assisting in a project involving the establishment of three production-cum-training centres in rural areas to be managed at the grass-roots level in Sierra Leone. The establishment of rural small-scale industries centres in the drought affected areas of Ethiopia started with the assessment of locations, selection of items to be produced and related technical specifications. Guinea and Guinea-Bissau are the other examples of the LDCs which were assisted by UNIDO in the promotion of rural industrialization. UNIDO's contribution to rural industrialization is being consolidated and expanded, depending on the resources available to it.

VII. ECONOMIC CO-OPERATION AMONG DEVELOPING COUNTRIES AND SUB-REGIONAL INDUSTRIAL CO-OPERATION

88. One of the hindrances to industrialization in the LDCs is the very small size of individual national markets. Even if there were adequate factors of production, local markets have proved to be too small to justify the establishment of medium- and large-scale industries, with forward and backward linkages. In the circumstances, LDCs cannot establish reasonably large industrial productive facilities which would enable them to increase the local processing of their raw materials and to reap the benefits of the economies of scale. In addition, the contractions of the traditional markets of the developing countries as a whole, and the downward trend of the prices of primary commodities, which are the main stay of the LDCs, make it imperative for the LDCs to diversify production, exports and markets. Technical and economic co-operation among developing countries, have proved to be some of the ways for providing additional marketing avenues for the LDCs, with its attendant advantage of facilitating increased economic utilization of local resources, and the benefits of large-scale production. Enlarged markets could also contribute positively and significantly to the solution of the excess installed capacity as well as rehabilitation.

89. Despite the recognition of the crucial importance of sub-regional and regional co-operation in the industrialization of the LDCs, support for co-operative schemes or organizations has not been as resolute in practical terms as expected. This is attributed to a number of factors including: already existing bilateral co-operation with former colonial powers and individual LDCs in various fields, including tied aid; shortage of foreign

exchange among the co-operating developing countries for buying each other's products; production of similar goods by the co-operators, which leaves little or no room for import and export trade; weaknesses in the organization and management of the institutions or machineries established by the co-operating countries to foster and expand co-operation; inward looking attitude and unwillingness of co-operating countries to see an encroachment on their recently achieved sovereignity, poor transport and communication facilities; political and ideological differences, etc.[22/]

90. The benefits to be derived from co-operative arrangements or schemes by each co-operator are many, given good understanding, spirit of give and take and constant consultations and adjustment. There must therefore continue to be confidence in and unflinching support for machineries established for co-ordination and harmonization of policies and plans of each participating country in the co-operative arrangements or schemes. By so doing, disruptive disputes could be avoided; and where disputes arise the machineries and procedures should be readily available for expeditious settlements to the satisfaction of all concerned.

91. Thus subregional and regional co-operation calls for comprehensive agreements, providing for all important eventualities. However, no agreement can foresee everything including change of attitudes of the co-operators and patterns, of international economic conditions, as time passes, which very

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22/ UNIDO's Study "Policy and Institutional Obstacles to the South-South Trade in Manufactures, UNIDO/IS.584, 19 Dec. 1985. The Study provides information on policy, financial and institutional obstacles, information, distribution and marketing constraints, etc.

often affect co-operative arrangements. The inevitable changes in internal and external factors necessitate regular reviews and consultations among or between the co-operating countries. These consultations very often call for prior studies of the factors causing problems, and come up with recommendations on measures to be adopted to meet the new challenges. Since the LDCs or group of co-operators, which includes LDCs, may not have the human and financial resources to undertake studies for that purpose, technical assistance is very often required.

92. Convinced of the indispensability of economic co-operation among developing countries to the industrial development of the least developed countries, UNIDO has been providing assistance to subregional and regional groupings, which usually consist of LDCs, technical co-operation and co-operation on enterprise to enterprise or project to project basis between the least developed countries and other developing and developed countries. For example UUNIDO undertook a comprehensive study of the Southern African Development Co-ordination Conference (SADCC), composed of nine countries, of which four are LDCs. The study aimed at identifying problems likely to constrain co-operative efforts, and to identify options in terms of resource base, structural policies, market orientation and support to the development of various forms of production. The findings of the study could provide industrial policy makers in the SADCC and its member countries, and donors of technical assistance, with tools for discerning and selecting strategy and policy options for improving the industrial structures and performance of member countries by fostering opportunities for complementarity in industrial production. Similarly, another study was undertaken concerning the development of the iron and steel industries in the Preferential Trade Area

for Eastern and Southern African States (PTA). The study highlights the logical complimentarity in the production and marketing of iron and steel in the subregion using local raw materials. (Eight of the 16 member countries are LDCs and three are island countries). There are also indications in the study of the best ways for developing the iron and steel industry with increasing utilization of existing installed capacity and the avoidance of excess capacity in future.

93. Another way in which UNIDO has been fostering co-operation of LDCs with other developing or developed countries is through its investment promotion programmes and activities and the System of Consultations. For example, UNIDO financed the participation of representatives of 20 LDCs in the consultation meetings organized on metallurgical industries and the agricultural machinery industry held in Vienna in June 1986, and Belgrade in October 1986 respectively. Sixteen participants from 13 LDCs attended the First Consultation on Fisheries Industries, which took place from 1 to 5 June 1987, in Poland. These consultations enabled the participants to acquire the latest up-to-date knowledge of developments in the areas covered and to establish business contacts with prospective partners. At the Second Consultation meeting on Training of Industrial Manpower, which was held in Paris in September, 1987, several training projects were identified for a number of African LDCs (Burundi, Ethiopia and the United Republic of Tanzania) which are being considered for financing from appropriate sources. Furthermore, within its programme for co-operation between developing countries, UNIDO has been organizing solidarity meetings which totalled 12 since the inception of the programme. These meetings of high-level officials or Ministers cover a wide spectrum of co-operation in the field of industrial development.

TABLE 1 - GDP, MVA, AND POPULATION FOR THIRTY-SEVEN LEAST DEVELOPED COUNTRIES FOR THE YEARS 1975 - 1986

YEAR	GROSS DOMESTIC PRODUCT GDPC80$		Manufacturing Value Ad. MFGC80$ .WORK			Population POP			MVA per capita		
	1980-U.S. dollars million	growth rate %	1980-U.S. dollars million	growth rate %	share %	persons million	growth rate %	GDPC per capita	1980-U.S.	growth rate %	share %
1975	74205	4.1	6239.7	0.12	8.4	287.7	2.6	258	21.7	-2.39	0.03
1976	76397	3.0	6315.5	1.22	8.3	295.2	2.6	259	21.4	-1.33	0.03
1977	79013	3.4	6340.4	0.39	8.0	302.8	2.6	261	20.9	-2.13	0.03
1978	81753	3.5	6337.5	-0.05	7.8	310.6	2.6	263	20.4	-2.55	0.02
1979	81233	-0.6	6168.4	-2.67	7.6	318.5	2.6	255	19.4	-5.10	0.02
1980	83033	2.2	6470.4	4.90	7.8	326.7	2.6	254	19.8	2.28	0.02
1981	85212	2.6	6430.2	-0.62	7.6	335.0	2.5	254	19.2	-3.09	0.02
1982	88386	3.7	6449.4	0.30	7.3	343.5	2.5	257	18.8	-2.18	0.02
1983	89916	1.7	6815.8	5.68	7.6	352.3	2.6	255	19.3	3.04	0.02
1984	92349	2.7	7035.4	3.22	7.6	361.5	2.6	255	19.5	0.58	0.02
1985	95493	2.4	7245.1	2.98	7.6	371.3	2.7	257	19.5	0.27	0.02
1986	98745	3.4	7468.6	3.08	7.6	381.7	2.8	259	19.6	0.28	0.02
1987	101894	3.2	7748.3	3.75	7.6	392.2 E	2.8	260	19.6	0.96	0.02

E= Estimate

Source: UNIDO/PDD/IPP/PA Estimates and figures based on data of the UN Statistical Office, UN Regional Commissions, IMF, National Sources and various journals and publications.

TABLE 2 - UNIDO'S TECHNICAL ASSISTANCE DELIVERY TO THE LEAST DEVELOPED COUNTRIES, BY COUNTRY, 1980 - 1987 [a/]

Country/Region	1980	1981	1982	1983	1984	1985	1986	1987	TOTAL
AFRICA									
Benin	443,122	279,842	146,613	42,474	100,346	160,220	227,406	241,547	1,641,570
Botswana	707,263	102,129	96,082	50,606	6,137	118,597	191,881	470,929	1,743,624
Burkina Faso	947,146	669,776	717,481	276,965	341,169	263,515	452,783	401,272	4,070,107
Burundi	600,730	347,866	347,105	433,351	638,826	643,275	452,539	334,094	3,797,786
Cape Verde	36,637	18,867	30,341	58,877	98,499	276,776	274,757	414,587	1,209,341
Central African Republic	164,550	250,658	98,663	31,462	6,001	-	25,549	48,968	625,853
Chad	11,275	247	17,758	87,574	11,874	374,031	403,180	676,597	1,582,536
Comoros	95,490	171,803	157,742	37,353	94,300	84,112	108,252	595	749,647
Equatorial Guinea	-	-	-	1,297	-	-	27,531	(10,970)	17,858
Ethiopia	1,614,751	2,558,484	2,132,211	1,754,248	1,573,683	3,018,169	3,961,367	2,046,904	18,659,817
Gambia	24,478	(18,896)	16,562	356,462	106,991	85,891	35,512	112,609	719,609
Guinea	1,443,508	2,678,405	783,533	875,126	769,256	2,068,678	832,769	553,045	10,004,320
Guinea Bissau	-	-	39,492	23,743	33,112	-	43,759	196,887	336,993
Lesotho	147,379	148,406	162,748	104,753	127,502	113,998	352,442	126,199	11,283,427
Malawi	438,627	581,361	385,204	230,724	149,647	282,663	183,762	141,392	2,393,380
Mali	278,663	362,612	547,186	1,174,984	550,871	772,054	834,777	885,685	5,406,833
Mauritania	-	-	-	-	-	-	-	35,995	35,995
Niger	687,460	765,875	749,245	585,394	453,566	907,248	379,849	424,099	4,952,730
Rwanda	1,989,994	1,268,632	1,117,844	215,474	487,605	354,624	321,167	579,759	6,335,099
Sao Tomé § Principe	-	-	-	77,305	11,711	92,409	17,253	4,631	203,309
Sierra Leone	-	-	-	284,628	-	406,474	677,217	372,822	1,741,14
United Rep of Tanzania	1,501,094	2,318,375	3,468,885	1,837,908	1,449,157	1,183,891	842,468	929,614	13,531,393
Togo	-	-	-	308,358	433,967	275,405	772,907	547,720	2,338,357
Uganda	107,977	345,081	250,526	194,572	24,316	238,046	344,877	620,786	2,126,18
SUB TOTAL	11,240,144	12,849,523	11,265,221	9,043,638	7,468,536	11,720,076	11,764,004	10,155,766	85,506,908

Country/Region	1980	1981	1982	1983	1984	1985	1986	1987	TOTAL
AMERICAS									
Haiti	707,263	374,305	247,177	278,166	119,777	148,771	47,720	75,795	1,998,974
ARAB STATES									
Democratic Yemen	676,989	545,148	565,674	813,752	471,855	528,213	226,346	313,889	4,141,86
Djibouti	-	-	-	-	-	73,677	55,567	(9,725)	119,51
Somalia	383,722	668,109	494,427	163,048	723,643	618,217	780,125	53[illegible]7	4,369,88
Sudan	433,588	774,193	681,618	697,236	612,318	261,477	268,350	250,425	3,979,20
Yemen Arab Republic	414,559	337,405	358,015	369,066	350,049	28,596	104,549	125,127	2,087,36
SUB TOTAL	1,908,858	2,324,855	2,099,734	2,043,102	2,157,865	1,510,180	1,434,937	1,218,313	14,697,84
ASIA § THE PACIFIC									
Afghanistan	124,360	143,781	169,004	220,582	95,334	137,725	24,323	(589)	914,52
Bangladesh	3,721,609	3,075,367	3,305,089	3,245,946	2,153,642	1,923,352	1,976,819	1,660,439	21,062,26
Bhutan	209,490	57,223	175,189	178,290	181,970	1,019,676	389,967	360,054	2,571,85
Kiribati	-	-	-	-	-	-	-	19,134	19,13
Lao Peoples Dem. Rep.	196,183	33,681	36,298	117,672	196,611	199,055	255,910	82,584	1,117,99
Maldives	-	-	10,810	(1,174)	-	4,821	30,879	116,195	161,53
Nepal	272,918	770,678	2,100664	1,026,174	582,231	615,171	763,119	882,887	7,013,84
Western Samoa	69,734	10,252	28,684	2,370	-	32,648	-	-	143,68
Vanuatu	-	-	-	-	-	-	-	214,078	214,07
SUB TOTAL	4,594,294	4,090,982	5,825,738	4,789,860	3,209,788	3,932,448	3,441,017	3,334,782	33,218,90
Regional, interregional and Global projects specially designed for LDCs	1,029,627	287,538	717,020	585,717	671,284	286,465	324,564	419,749	4,321,96
GRAND TOTAL	19,480,186	19,927,203	20,154,890	16,740,483	13,627,250	17,597,940	17,012,242	15,204,405	139,744,59

a/ The table does not include regional interregional and global projects or individual fellowships and group training programmes in which LDCs have been involved together with other developing countries.

Source: Executive Director/Director-General's Annual Reports 1980 to 1987.