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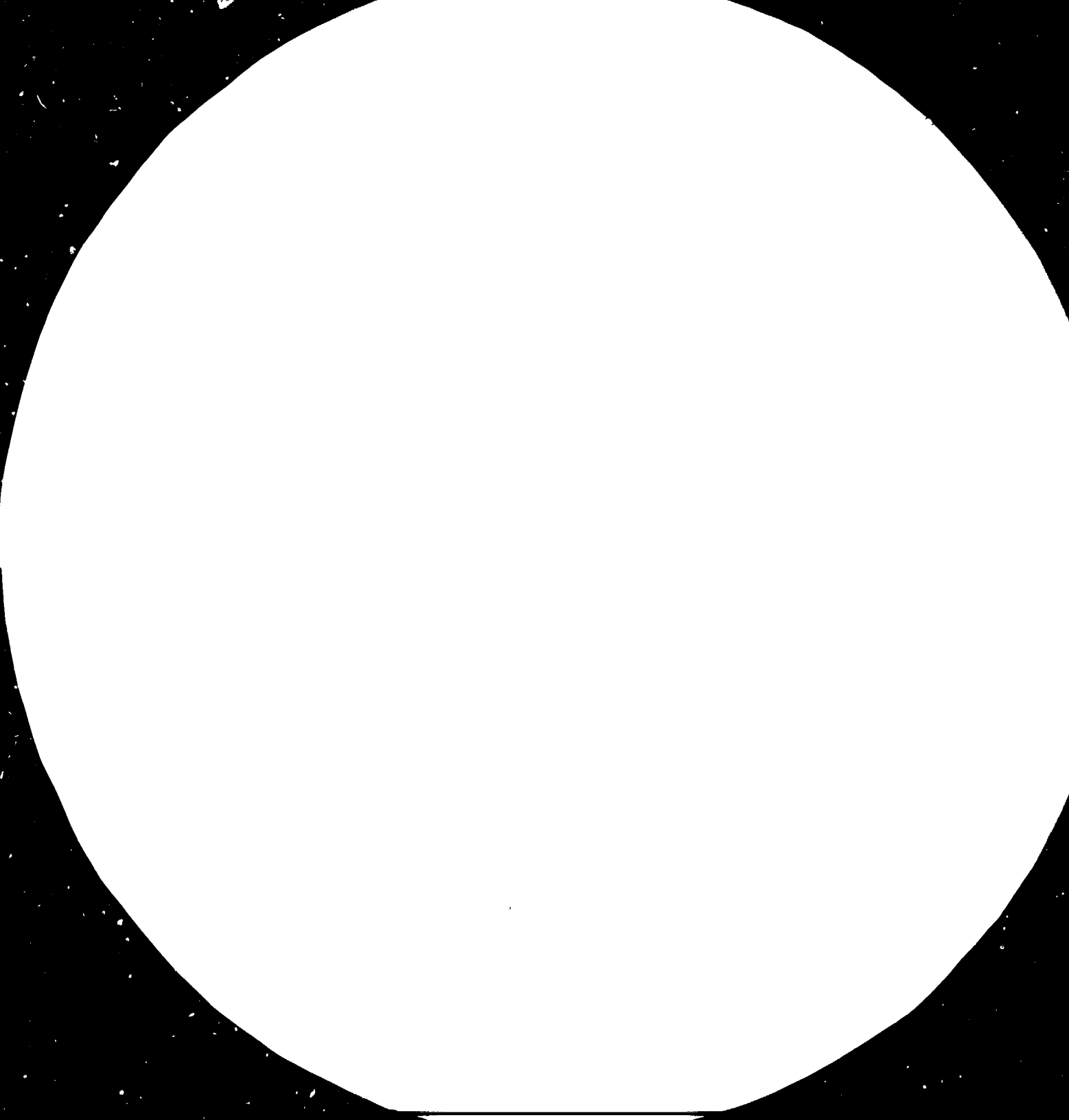
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Item 6 of the provisional agenda

THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA:
REVIEW OF PROGRESS, AND PROPOSALS ON WAYS
AND MEANS TO ATTAIN ITS OBJECTIVES

Background paper prepared by the UNIDO secretariat
in consultation with ECA and OAU

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INTRODUCTION

1. This paper provides a brief summary of the economic state of the African region and its recent industrial performance. It then goes on to describe the steps taken to implement the programme for the Industrial Development Decade for Africa and indicates the constraints encountered and areas for future action.

I. THE ECONOMIC STATE OF THE REGION

2. Most African countries are still at an appreciably earlier stage of development than the majority of developing countries in Asia or Latin America. Whatever socio-economic indicator is used - be it per capita income, the share of primary activities in total production, school enrolment ratios, access to safe water, mortality or health - most African countries can be seen to be lagging behind their counterparts in the other developing regions. The number of African countries listed as "least developed" by the United Nations recently increased to 26 out of a total of 36, while 21 out of 34 countries classified by the World Bank as "low-income" developing countries are located in Africa. 1/ The implication to be drawn from this situation is that the rate of industrial development is slow, since manufacturing is characteristically one of the most dynamically expanding sectors in the transition from low to higher income levels.

3. Further to being at an early stage of development, the economy of Africa faces particularly grave economic problems. Reference to the Annual Report 1982 of the World Bank reveals that, in respect of sub-Saharan Africa:

(a) Growth rates for gross national product (GNP), GNP per capita, agricultural production and manufacturing slowed down in the period 1970-1981, while population growth accelerated;

(b) Agricultural performance dropped badly in the same period, bearing little comparison with the previous decade or with performance in other developing regions;

(c) Though remaining well above growth of the economy as a whole, the growth of manufacturing also slowed down abruptly and in the period 1970-1981 the rate of expansion did not compare well with that of other developing countries. 2/

4. These difficulties are aggravated by the balance-of-payment deficits faced by most countries of the region: the external debt of the region increased fivefold during the past decade, while external reserves dropped to critically low levels. The total outstanding debt in 1980 amounted to \$US 77,500 million and the payment commitments have become a burden. * 3/

* Reporting on sub-Saharan Africa, the World Bank cites debt-service ratios of 19 per cent for low-income countries.

The expansion of manufacturing output in the region is also hampered by sluggish domestic markets, inadequate raw material supplies for key industries, the absence of skilled and experienced industrial manpower, and shortages of imported materials, spares and machinery. The generally stagnant nature of the domestic economies has inevitably depressed industrial investment and, in turn, future expansion.

5. Major difficulties stem from energy problems, despite Africa's substantial energy reserves. It is estimated that Africa has some 55 billion barrels of crude oil (8.5 per cent of the world's proven reserves), 208,470 billion cubic feet of natural gas (7.9 per cent of the world's proven reserves), 88.5 billion tons of coal reserves * (between 1.16 and 3.05 per cent of the world's estimated coal reserves), 1.7 million tons of uranium (some 25 per cent of the world's resources) and 200,000 megawatts of potential hydrocapacity (35.4 per cent of the world's potential hydrocapacity). 4/ Moreover, the region has an appreciable potential in new and renewable sources of energy such as solar, wind, biogas, geothermal and ocean energy.

6. Africa's energy balance sheet shows that the region could largely meet its energy requirements from its own resources. For example, only a small fraction (1.5 per cent) of the vast hydropower resources is being exploited. Oil, however, which is the major component in Africa's energy consumption, is produced in only a few countries. The largest part of the region depends on oil imports ranging from 26 to 86 per cent of the commercial energy requirements of the individual countries, and the resultant oil import bill has undoubtedly restricted the development of the region.

Industrial performance in the region

7. Manufacturing could not remain immune to the effects of a deteriorating economic environment. Given the close link between agriculture and industry, poor performance in the agricultural sector devolved negatively upon manufacturing. Total food production rose by no more than 1.5 per cent in the period 1970-1980, while the African population expanded at an average annual rate of some 2.8 per cent. 5/ As a result, per capita food production dropped at an average annual rate of 1.2 per cent in the period 1970-1980. The critical dimension of this situation becomes apparent when it is realized that per capita food production increased over the same period at a rate of 0.7 to 0.9 per cent in other developing regions and by 1.3 per cent in the developed market economies. Industry, however, needs a thriving agricultural sector as a major supplier of raw materials to industry and as the principal market for its output: the improvement of agriculture is essential to industrial development.

8. The fact that the typical African economy is still at an early stage of development means that certain "structural" features come into play and condition the environment in which industry operates. Seen from a positive angle, the fact that these economies start from a small industrial base offers potential scope for industrialization, as does the rich natural resource endowment of many African countries. On the negative side, however, the small populations and low levels of income in most African countries mean that existing domestic markets for consumer goods are far too small to permit the

* South Africa accounts for about 81 per cent of Africa's coal reserves.

11. It should also be recalled that virtually all African economies are still heavily dominated by agriculture and other primary production, supplemented by associated tertiary activities. Moreover, the rising share of manufacturing is (at least partly) the consequence of lagging agriculture (see paragraph 7 above) and not of rapid industrial growth per se. Moreover, the impact of tax policy and subsidies may be to shift relative prices in favour of manufacturing and impart an upward bias in estimates thereof. Indeed, if the relative contributions of the respective sectors were valued at world prices rather than internal values, it might well transpire that no industrial progress would be recorded. Even based on conventional valuations, the modest extent of industrialization in Africa is set in perspective by the fact that the region's share in world manufacturing value added in 1982 is estimated to stand at a mere 1.11 per cent (see table 2).

Table 2. Share of developing regions in world manufacturing value added at constant (1975) prices, 1963-1982 a/
(Percentage)

Year	Africa	West Asia	South and East Asia	Latin America	Total
1963	0.77	0.49	2.13	4.71	8.10
1964	0.79	0.49	2.11	4.88	8.27
1965	0.79	0.50	2.07	4.86	8.22
1966	0.78	0.52	1.98	4.86	8.14
1967	0.75	0.54	2.02	4.84	8.15
1968	0.77	0.57	2.05	4.89	8.28
1969	0.78	0.58	2.09	4.92	8.37
1970	0.83	0.59	2.18	5.15	8.75
1971	0.84	0.61	2.23	5.40	9.08
1972	0.81	0.61	2.28	5.48	9.18
1973	0.82	0.62	2.33	5.50	9.27
1974	0.83	0.63	2.44	5.74	9.64
1975	0.88	0.67	2.60	5.87	10.02
1976	0.84	0.69	2.75	5.74	10.02
1977	0.85	0.70	2.85	5.64	10.04
1978	0.87	0.73	3.04	5.65	10.29
1979	0.91	0.73	3.15	5.75	10.54
1980	0.97	0.73	3.14	6.14	10.98
1981 b/	1.02	0.76	3.26	5.82	10.86
1982 c/	1.11	0.80	3.43	5.68	11.02

Sources: A Statistical Review of the World Industrial Situation 1982 (UNIDO/IS.368); UNIDO data base: information supplied by the Office for Development Research and Policy Analysis and the Statistical Office of the United Nations Secretariat, supplemented by the Monthly Bulletin of Statistics, vol. XXXVI, No. 11 (November 1982), with estimates by the UNIDO secretariat.

- a/ Excluding China
b/ Preliminary figures
c/ Estimates.

12. This perspective becomes even more firmly set when it is recalled that the geographical spread of industry across the region (akin to the spread in many countries) is extremely uneven. Four countries - Algeria, Egypt, Morocco and Nigeria - accounted for well over half of African manufacturing value added in 1979. 6/ Of the 35 African countries covered by the World Development Report 1982, 16 had value added of less than \$US 100 million each and together they accounted for just 5 per cent of the continent's total manufacturing value added. Another 15 countries contributed the remaining 35 per cent. Based on data provided by the ECA Statistics Division, the four countries mentioned above accounted for some 54.2 per cent of the region's value added in 1981, the 26 least developed countries in the region accounted for 11.7 per cent, and the remaining 22 for 34.1 per cent.

13. The above figures do not take account of differences in the size of the economy, and thus may not offer the best means of illustration. A more effective way of demonstrating the varying degrees of industrialization is to group countries and areas according to the share of manufacturing in GDP. The following figures show the share of manufacturing in GDP for 1981, at current prices: *

Less than 5 per cent of GDP

Angola (2.6)	Namibia (4.4)
Gambia (2.6)	Reunion (3.5)
Guinea (3.1)	Sao Tome and Principe (4.7)
Guinea-Bissau (1.7)	Sierra Leone (4.8)
Lesotho (4.7)	Uganda (4.2)
Libyan Arab Jamahiriya (2.8)	Zaire (2.5)

5 to 10 per cent of GDP

Algeria (8.4)	Mali (7.8)
Benin (5.4)	Mauritania (6.0)
Botswana (5.6)	Mozambique (8.8)
Cape Verde (5.4)	Niger (5.3)
Chad (7.8)	Nigeria (6.1)
Comoros (5.4)	Seychelles (6.6)
Congo (7.5)	Somalia (8.8)
Djibouti (8.8)	Sudan (7.1)
Equatorial Guinea (5.1)	Togo (6.4)
Gabon (7.7)	United Republic of Cameroon (9.8)
Liberia (5.2)	United Republic of Tanzania (9.0)

10 to 15 per cent of GDP

Burundi (10.9)	Kenya (13.3)
Central African Republic (13.5)	Madagascar (10.1)
Egypt (14.4)	Rwanda (12.7)
Ethiopia (10.4)	Senegal (14.7)
Ghana (13.9)	Tunisia (10.3)
Ivory Coast (11.0)	Upper Volta (13.8)

Over 15 per cent of GDP

Malawi (15.2)	Swaziland (24.3)
Mauritius (15.5)	Zambia (15.8)
Morocco (19.6)	Zimbabwe (26.5)

* Figures obtained from computer print-outs supplied by ECA Statistics Division with calculations by the UNIDO secretariat.

14. Despite the open nature of the economies of the region, the good natural resource base in some countries and the very limited domestic markets, Africa's share in world exports is small. It declined from 3.9 per cent in 1970 to 3.4 per cent in 1979, with a heavy concentration on only a few primary agricultural and mineral commodities. 7/ It is also impossible to state with any degree of precision the proportion of total African manufactured output that is exported, but indications are that it is probably of the order of 10-20 per cent, possibly even less than 10 per cent.

15. This implies that the bulk of the region's industrial growth has come about as a result either of expanding real demand or of import substitution. Given that per capita incomes in the region have been growing only very slowly (in some cases declining), it can be inferred that most industrial growth has hitherto emanated from import substitution. In other words, industrialization in Africa has principally consisted in setting up industries that produce simple types of manufactured consumer goods to meet a local demand formerly satisfied by imported goods. The share of finished consumer goods in total imports is observed to have declined, while the shares of intermediate and capital goods have increased. Since the new industries are often capital-intensive and heavily dependent on imported raw materials, the new import-substitution industries, while contributing to the relative decline in imported consumer goods, also contribute to an increase in the import of intermediate and capital goods.

16. The shortsightedness of over-emphasizing import substitution is pointed out in the description of the strategy of self-reliance and self-sustainment contained in A Programme for the Industrial Development Decade for Africa. 8/ Prepared jointly by the Economic Commission for Africa (ECA), the Organization of African Unity (OAU) and UNIDO, the programme stresses that in the post-colonial period import substitution had been confined to the manufacture of products suited to the demands of a relatively small affluent group. Pursuance of import-substitution policies had also led to a failure to integrate the agricultural sector in the growth process, while the capital-intensive manufacture of sophisticated products had heightened the region's dependence on foreign manpower, capital and technology. Moreover, the trend towards creating capital-intensive import-substitution industries with a high unit cost of investment and with no relationship to Africa's factor mix has distorted the region's cost structure. Thus, in quite a few instances, domestic production costs tend to be higher in terms of foreign exchange than the cost of the imported final product.

17. As pointed out in the Lagos Plan of Action, the effects of unfulfilled promises of global development strategies had been more sharply felt in Africa than in other continents of the world, and it was against this economic backdrop that Africa moved towards a basic restructuring of the economic base of the continent. Despite the varying structure of industrial ownership, the main objective of economic development in most African countries since independence has been to achieve a sustained increase in the standard of living for an increasing proportion of the population. In order to achieve this, the composition of output must shift from primary production to secondary activities, i.e. industrialization. To this long-term strategy can be added the shorter-term goals of an accelerated growth in output and the creation of employment opportunities so as to reduce unemployment or underemployment and contribute to the elimination of mass poverty. Furthermore, industrialization provides a means of overcoming the constraints of foreign exchange on development.

18. Industrialization also stimulates the expansion of other sectors of the economy, such as agriculture, by creating a larger market for their products, supplying the necessary equipment and machinery, and contributing to the technological advancement of society. At the same time, however, the relative allocation of resources to industry and other sectors of the economy has to be kept in reasonable balance, since the neglect of non-industrial activities would frustrate the expansion of manufacturing.

II. INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA

A. Origins of the Decade

19. In more recent years, a new element has been incorporated into the long-term economic development strategies described above. In the Monrovia Declaration of Commitment of the Heads of State and Government of the Organization of African Unity on Guidelines and Measures for National and Collective Self-reliance in Social and Economic Development for the Establishment of a New International Economic Order (see A/34/552, annex II), the African Governments committed themselves, individually and collectively, to promoting "the social and economic development and integration of our economies with a view to achieving an increasing measure of self-reliance and self-sustainment". Thus, to the more general objectives of socio-economic development were added the concepts of self-reliance and self-sustainment that have become the key features of the Industrial Development Decade for Africa proclaimed by the General Assembly in its resolution 35/66 B.

20. In the Lagos Declaration and Plan of Action, which derives directly from the Monrovia Declaration, the chapter on industry reflects the inclusion of self-reliance and self-sustainment in an industrialization policy that contributes to:

- (a) Satisfaction of the basic needs of the population;
- (b) Exploitation of local natural resources;
- (c) Creation of jobs;
- (d) Establishment of a base for developing other economic sectors;
- (e) Creation of the basis for assimilating and promoting technological progress;
- (f) Modernization of society.

21. Quantitative and qualitative targets are set for industrial integration at the subregional and regional levels. A share of at least 1.4 per cent in world industrial production is to be achieved by 1990, while African countries will do everything in their power to achieve self-sufficiency by 1990 in the food, building materials, clothing and energy sectors. Moreover, during the first half of the Decade, the foundation will be laid for the phased development of the following basic industries essential to the achievement of

self-reliance: food and agro-industries, mechanical industries, metallurgical industries, electrical and electronic industries, chemical industries, forestry industries and energy industry. Furthermore, in the Final Act of Lagos (A/S-11/14, annex II), the industrial sector was selected as one of the priority sectors for subregional and regional integration during the current decade.

B. Programme for the Decade

22. In translating these aspirations into operational terms, the African Ministers of Industry, at their sixth Conference, adopted a programme for the Decade. The programme comprises a preparatory phase (1982-1984) and an implementation phase (1985-1990). During the preparatory phase, regional, subregional and national industrial strategies and programmes will be realigned or established in accordance with the objectives of the Lagos Plan of Action, while African industrial development will be reoriented towards self-reliance and self-sustainment. Among the specific activities to be undertaken during the preparatory phase are:

(a) Preparation of a coherent and internally consistent set of national, subregional and regional policies, master plans and programmes, as well as the design and promotion of institutional machinery to achieve the objectives of the Decade in particular and the Lagos Plan of Action in general;

(b) Popularization of the programme for the Decade, including effective use of the mass media;

(c) Elaboration of investment programmes and projects at the national, subregional, regional and international levels for submission to financial and investment institutions and a programme to strengthen or establish national, subregional and regional financial institutions as required;

(d) Preparation of an industrial manpower development plan, including, in particular, a programme for the training of specialized African industrial and technological skills, at the national, subregional and regional levels;

(e) Adoption of policy instruments to foster intra-African industrial co-operation, especially in the areas of trade, technology, promotion of African specialization and complementarity, raw material assessment, project financing, manpower development, entrepreneurial capabilities, information, consultancy services, and energy;

(f) Establishment of an African industrial consultation negotiation, and arbitration mechanism within the framework of the Final Act of Lagos.

23. In elaborating upon the above actions, the Joint Committee of the OAU, ECA and UNIDO secretariats on the implementation of the programme for the Industrial Development Decade for Africa noted the considerations that should be taken into account in this first phase:

(a) Contribution to the basic policy objective of collective self-reliance and self-sustaining development;

- (b) Promotion of the development of indigenous capabilities;
- (c) Development of a core of integrated projects for structural change, with maximum linkage to agriculture and transportation and related to current national project ideas;
- (d) Contribution to the development of national, subregional and regional productive capabilities;
- (e) Reduction of dependence on external factor inputs;
- (f) Recognition of the role of market-widening and raw-material sourcing as a means of improving the range and level of production;
- (g) Induction of changes in the pattern of technical assistance so as to accelerate the reduction of external dependence.

24. The implementation phase, as the name indicates, will be concerned with the implementation of industrial projects and other activities defined during the preparatory phase. It will encompass the identification of technical partners and the preparation of joint feasibility studies as appropriate, as well as the mobilization of financial resources. At the national level, emphasis will be placed on training and work force development and the improvement of skills related to factor inputs. These endeavours will be matched by research and development activities, and the strengthening of the institutional infrastructure for industry. In all these fields, support from the international community, especially the United Nations organizations and agencies, will be essential.

25. The programme itself covers a broad range of subsectors: food processing, textiles, forest-based industries, building materials and construction industries, metallurgical industries (with special emphasis on iron and steel, aluminium, copper, lead, zinc and tin), chemicals (with special emphasis on ammonia, nitrogenous fertilizers, potash fertilizers, pharmaceutical ingredients, traditional medicine, and biomass-based chemicals), engineering industries (mechanical, non-electrical and transport equipment, agricultural implements, machine tools, foundry and forging facilities), small-scale industries, major factor inputs and raw materials.

26. Since no country is so endowed with natural resources, finance and technical capabilities that it can cover each priority, it is essential that a certain development focus be set. It would be impractical for countries to endeavour to launch out on a wide range of industrial activities, irrespective of their strategic significance, since such an approach would over-extend already limited resources. Instead, countries are encouraged to focus their attention on priority or core projects and to appraise their existing production facilities, particularly those that are underused, so as to revive those that are linked to the core industries appropriate to the country.

27. General criteria have been developed by the three lead agencies for the selection of core industries at both the national and subregional levels which are seen to contribute to the achievement of self-sufficiency in the priority sectors and the satisfaction of basic needs, as well as to the creation of a self-sustained and self-reliant industrial base, three basic objectives of the Lagos Plan of Action.

28. A distinction is made between resource-based and engineering-based core industries. The former are defined as industries using domestically available resources, which constitute a nucleus providing basic inputs into industry and other priority sectors and/or producing goods and services to meet basic needs. The latter are defined as the minimum set of engineering industries, which enable a country or group of countries to meet its most basic engineering requirements and make optimum use of available resources for the servicing of both industry and other priority sectors (agriculture, transport and communications and energy) in terms of equipment, spare parts and components.

29. Resource-based industries depend primarily on the exploitation and complete vertical integration of the subregion's natural resources, including energy. Once established, they have significant up- and down-stream linkage effects in respect not only of other industries but also of other sectors of the economy. The engineering-based core industries provide inputs to resource-based industries and all economic activities. Whereas their development depends primarily on their own reproductive ability, it also depends, ultimately, on the products of metallurgical and chemical (resource-based) industries for the production of tools, implements and capital goods. Some engineering-based core industries call for the mass production of parts and components. This usually exceeds the scope of a single country's capabilities and markets, and such industries are well suited to subcontracting arrangements and hence to multinational co-operation.

30. The importance of core industries derives from the fact that they permit the concentration of resources upon certain subsectors, thus ensuring the maximum impact upon the economy. They also facilitate the transfer of skills and experience to other sectors, while manpower and technological programmes are predicated upon specific priorities rather than generalized needs. An intersectoral and interdisciplinary approach is a basic requirement during the programming and execution of core projects, while the development of national capacities in the following areas is equally essential:

(a) Project preparation services in connection with the undertaking of feasibility studies, project monitoring and evaluation, technical training and management consultancy;

(b) Procurement, finance and marketing services in respect of machinery and raw materials;

(c) Product development and design services, including standardization and product adaptation;

(d) Technological and engineering advisory services related to plant layout, process planning, equipment selection, production and quality control, material control and inspection.

31. Efforts at the national level will be matched by endeavours at the subregional or regional level to:

(a) Prepare sectoral policies and programmes within strategic core industrial branches;

(b) Identify major core industrial projects of interest to the countries in the subregion or region;

(c) Strengthen or establish institutions in the subregion or region whose object is to promote industrial integration. Emphasis should also be given to the establishment of multinational production enterprises and appropriate multinational co-operation arrangements, supplemented by intergovernmental agreements.

III. IMPLEMENTATION OF THE PROGRAMME

A. Contribution by countries

32. In their reports on activities undertaken in support of the programme for the Decade, the majority of countries described how they had embarked on the readjustment of their national development plans to incorporate the concepts of the Decade, especially with respect to resource allocation. All the plans were related to the basic objectives of the Lagos Plan of Action: the achievement of national and collective self-reliance and self-sustained development.

33. As for general economic and industrial strategies, it was emphasized that the main considerations had been: concentration of resources on priority industrial areas and core projects; promotion of intra-African industrial co-operation with emphasis on multinational projects; greater utilization of locally available resources; and better management with a view to laying a solid foundation for industrial development.

34. The countries also reported on specific activities directed towards the implementation of the programme for the Decade at the national, subregional and regional levels. The activities included the establishment or strengthening of support institutions to subsidize and provide financial resources for industry, as well as consultancy and engineering services and centres spearheading the development of core industrial projects. In addition, workshops and seminars had been organized with a view to realigning national capabilities for project formulation and implementation.

35. Several countries indicated that the necessary institutional machinery, national co-ordinating committees or operational focal points had been established or were about to be established, while others indicated that their establishment would be considered only after national policies had been reviewed and priorities identified. Countries also reported on their efforts to secure cheap and reliable supplies of energy, particularly from new and renewable sources, as well as on steps taken to develop industrial and technological manpower.

36. Various multilateral and bilateral co-operation activities designed to enhance the implementation of the programme were described, including participation in intergovernmental meetings on industry, the organization of industrial solidarity meetings and technical assistance from United Nations

agencies as well as from other African countries. They also indicated the steps they had taken to regulate industrial activities, including, in particular, the enactment of legislation and the promulgation of investment codes covering joint industrial ventures and incentives.

B. Contribution by subregional and regional organizations

37. Certain initiatives have also been taken at the regional and subregional levels. Within the context of the Southern African Development Co-ordination Conference (SADCC) and the Lusaka Declaration - Southern Africa: toward Economic Liberation - signed on 1 April 1980 by the Heads of State or Government of the member States of SADCC, which called for regional co-operation so as to reduce dependence on South Africa and build up equitable regional integration, a SADCC industrial co-ordination unit was established at Dar es Salaam. A subregional plan emanating from the Unit emphasizes the need to develop industries to meet the basic needs of the population in respect of food, clothing, housing, health, water supply, power, transport and education. Based on the principles of self-reliance and self-sustainment, the member countries are endeavouring to rationalize the exploitation of their own resources, improve institutional structures, encourage the use of labour-intensive technologies, train manpower, develop transport and communications, ensure self-sufficiency in food and establish a common industrial development strategy.

38. The Treaty on the Establishment of the Preferential Trade Area in Eastern and Southern African States will have a comparable impact on industrialization. In the field of industrial development, the Treaty provides for the promotion of collective self-reliance, complementary industrial development, the expansion of trade in industrial products and the provision of related training facilities. In an annex to the Treaty, priority areas for industrial co-operation are identified, the establishment of multinational industrial enterprises outlined and mechanisms for the promotion of industrial development described. Attention is also drawn to the essentiality of industrial manpower development, training, management and consultancy services and to the need for a common approach to industrial research and development, and the exchange of industrial information.

39. Industrial development was also boosted by the decision of the Heads of State and Government of the Economic Community of West African States (ECOWAS) to implement the trade liberalization of industrial products originating within the Community. A major step forward in intra-African co-operation, the products earmarked at present are those related to basic social needs, such as health, food and housing, or that have an impact on development such as employment generation or increased industrialization. The goods must either be manufactured in the subregion or meet the value-added requirements if originating abroad. The integrative thrust of this move would also be greatly enhanced should it prove possible to establish an ECOWAS monetary zone, as this would help surmount the trading difficulties of a community with 11 different currencies, of which only two are convertible.

40. In the Northern African subregion, the Maghreb Permanent Consultative Committee could provide a possible framework. Set up to study problems relating to economic co-operation in the Maghreb countries and to put forward proposals that could lead ultimately to a Maghreb economic community, its aims

correspond to those envisaged in the Final Act of Lagos, which saw the strengthening or establishment of economic groupings and communities in the four subregions as a first step towards the creation of an African economic community. This move towards closer integration at the subregional level has been reinforced by the recent endeavour on the part of Tunisia and Algeria to intensify economic co-operation and political understanding between the Maghreb countries. It is hoped the other countries in the subregion will follow suit.

41. The establishment in October 1983 of the Economic Community of Central African States (ECCAS) will also contribute to industrial development at the subregional level. Set up with the main objective of promoting self-reliant and self-sustained economic development in the subregion, industry is given high priority in the treaty and the protocol pertaining to industrial co-operation. The main thrust lies in the establishment of multinational industries based on local resources and other factor inputs, the priority industrial subsectors being basic industries, such as iron and steel, capital goods, and engineering industries as well as the fertilizer, pharmaceutical, pesticide and petrochemical industries. A number of multinational industrial projects have already been identified in the subregion within the framework of such subregional bodies as the Customs and Economic Union of Central Africa (UDEAC) and the Economic Community of the Great Lakes Countries (CEPGL).

C. Contribution by organizations in the United Nations system

42. The contribution by organizations in the United Nations system was the subject of a meeting on intersecretariat co-operation convened in March 1982 at Vienna, to which were invited: the Office for Development and International Economic Co-operation of the United Nations Secretariat, the United Nations Conference on Trade and Development (UNCTAD), the United Nations Centre for Human Settlements (Habitat), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the International Labour Organization (ILO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), the World Bank, the International Telecommunication Union (ITU) and the World Intellectual Property Organization (WIPO). A general review was made of the Africa-related activities of the participating organizations and the way in which they had been addressed to the aims and objectives of the Lagos Plan of Action. It was agreed that the successful harmonization of programmes hinged upon the fullest possible exchange of information between organizations and agencies contributing to the programme for the Decade, and the importance of inter-agency co-operation was underscored.

43. It should also be noted that inter-agency co-operation is firmly established within the context of such bodies as the FAO/ECA/UNIDO Forest Industries Advisory Group, the Regional Seas Programme Activity Centre of UNEP and the United Nations Centre for Human Settlements (Habitat). In addition to UNDP, other agencies and financial institutions that have concluded agreements with UNIDO for the implementation of projects in the region include the United Nations Capital Development Fund, the Voluntary Fund for the United Nations Decade for Women, the United Nations Financing System for Science and Technology for Development, the World Bank and other United Nations regional

organizations. These projects, many of which are already under implementation, cover such areas as agricultural tools and machinery and other subsectors of the agro-based industries, pharmaceutical industry, the manufacture of equipment using conventional and solar energy, and the integration of women in the industrial process. It is anticipated that co-operation of this kind will expand as a result of further inter-agency consultations.

44. In accordance with a decision taken at the previous meeting, the agenda of the meeting of the representatives of the secretariat of the Organization of African Unity (OAU) and the secretariats of the United Nations system held at Addis Ababa in April 1983, included a separate item on the Industrial Development Decade for Africa. Speaking on this item, the representatives of UNCTAD, ILO and UNESCO described the steps they were taking to assist the African countries in implementing the programme for the Decade. By way of example, emphasis had been placed in the African programmes of ILO on industrial development, focusing upon such areas as training, management and small-scale industries, which were of particular significance to the programme for the Decade.

45. At that meeting the United Nations agencies and organizations were urged to intensify their efforts to reorient their ongoing programmes in accordance with the priorities and concepts of the programme for the Decade. They were also urged to develop new programmes for greater assistance to the African countries, regional and subregional organizations in the formulation and implementation of their programmes for the Decade. Such assistance, it was recommended, should accord priority to:

- (a) The popularization of the Decade;
- (b) The adoption of the concept of the core industries and the preparation and implementation of core industrial projects;
- (c) Development of the manpower and technological capabilities needed to implement the programme for the Decade, in particular core industries;
- (d) The mobilization and optimization of both local and external financial resources for the programme, especially core industrial projects.

D. Contribution by the lead agencies

46. Co-operation between the lead agencies has been facilitated by the establishment of the Joint Committee of the OAU, ECA and UNIDO secretariats on the Implementation of the Programme for the Industrial Development Decade for Africa within the Framework of the Lagos Plan of Action. The most significant illustration of co-operation between the three agencies was the joint formulation of the document adopted by the African Ministers of Industry at their sixth conference, containing a programme for the Industrial Development Decade for Africa. Available in Arabic, English and French, the composite document outlines the aims and objectives of the Decade and provides a planning framework for planners at the national, subregional and regional level.

47. The three agencies also co-operated in the formulation of guidelines for initiating priority actions at the national and subregional level during the preparatory phase for the implementation of the programme for the Decade. These guidelines, which emphasize the importance of developing core industries, were adopted at the seventh meeting of the Follow-up Committee on Industrialization in Africa, held at Kigali, Rwanda, from 16 to 19 March 1983, which also endorsed the concept of core engineering and resource-based industries and their interlinkage. Consequently, the provision of assistance by UNIDO and ECA to Governments in the implementation of those guidelines and the promotion of appropriate core industrial projects has become an area of particular activity. The importance of the development of core industries was subsequently reaffirmed in the resolution on the Industrial Development Decade for Africa by the General Assembly adopted at its thirty-eighth session.

48. As a contribution to the development of core industries, the three secretariats organized subregional meetings to promote intra-African co-operation in the elaboration and implementation of multinational industrial projects. Based on the identification of areas in which multinational core industries and other projects can be developed in the subregions, initial integrated industrial programmes comprising both core and support projects were drawn up for each subregion and a strategy for their implementation elaborated. Steps are being taken to secure the endorsement of those integrated programmes by the relevant subregional or national legislative authorities, thus enhancing the status of the programmes and projects in subsequent negotiations with investors and funding agencies. Scheduled for completion within the preparatory phase of the programme for the Decade, this exercise will reinforce the steps taken at the national level and pave the way for the creation of industrial structures with a high degree of intersectoral linkage and complementarity.

49. At the same time, the three secretariats will continue to adjust their ongoing programmes to the requirements of the programme for the Decade. The extent to which this reorientation has already been effected is demonstrated in the annual progress reports prepared by the Executive Director of UNIDO and the Executive Secretary of ECA and submitted to the Industrial Development Board. 9/ It should be noted that, with the advent of the Decade, many of the activities of UNIDO and ECA have been specifically redirected towards such priority subsectors as engineering and the metallurgical and chemical industries, as well as agro-based and forest-based industries, which are essential to the creation of the sound industrial base that promotes self-reliance and self-sustained development. At the same time, attention has been devoted to major factor and related inputs, such as natural resources and energy, workshops having been held on industrial energy management and projects planned on optimizing the gasification of agricultural residues, establishing regional and subregional biomass demonstration units and developing alternative sources of energy. In addition to participating in meetings which discussed the role of coal in accelerated economic growth, fuelwood and energy development, and hydropower development in the Niger river basin, it is planned to promote technical co-operation among developing countries in the all-important field of energy at a high-level intergovernmental meeting on energy and industrial development, which will discuss the transition from the use of conventional fuels to new and renewable sources of energy.

50. Attention also focused on the institutional infrastructure needed to deal with such matters as technology policies and plans; industrial and technological research and development; standardization, quality control and metrology; regulation of technology; commercialization of indigenous technologies; industrial and technological information; and industrial and engineering design, including product and process adaptation. 10/ Given the emphasis in both the Lagos Plan of Action and the programme for the Decade, it follows that particular priority was also given to the development of human resources, in particular, to the development of industrial and technological skills. In that connection, a joint UNIDO/ECA programme has been developed to foster intra-African co-operation in developing collective self-reliance in industrial manpower, and to support the industrialization process in Africa by increasing the number of trained and qualified industrial manpower through the efficient utilization of the training facilities and opportunities that exist in the region. In the last two years, three subregional workshops have been organized by ECA on the subject of manpower programming in selected industries. It is also significant that this particular subject will be the subject of a publication in a series of documents issued in connection with the Decade.

51. UNIDO will intensify its efforts, through its Investment Co-operative Programme, to increase the flow of foreign private investment into these priority areas. For example, at a regional investment promotion meeting held in 1983 for countries in southern Africa, Angola, Botswana, Lesotho, Malawi, Mauritius, Swaziland, the United Republic of Tanzania, Zambia and Zimbabwe - more than 150 projects were discussed. In that same year, the UNIDO portfolio contained 289 investment project proposals for the African region, while African officials from Angola, the Congo, Guinea, Egypt, the Ivory Coast, Rwanda and Senegal received on-the-job training through the UNIDO Investment Promotion Service.

52. Within the framework of the programme of co-operation among developing countries, UNIDO organizes solidarity ministerial meetings, which are specifically directed towards assisting the economic and industrial development of the least developed countries. In addition to enhancing the spirit of collective self-reliance, the meetings develop practical mechanisms, such as loans or grants for the purchase of machinery, joint ventures, exchange of technology and know-how, training, industrial research and experts service, which are conducive to the technical and financial development of the host country. Five such meetings have already been held, with tangible results, in Lesotho, Mauritania, the Sudan, the Upper Volta and the United Republic of Tanzania, and preparations are being made for meetings in Burundi, Mali and Rwanda. These endeavours have been complemented by the promotion of co-operation between Latin America and Africa following the First International Africa/Latin America Symposium, held at Rio de Janeiro in August 1983, at which countries and organizations from both regions exchanged experiences in various industrial fields and recommended specific co-operation programmes between governmental and non-governmental organizations.

53. In addition to its ongoing activities, UNIDO is concentrating on the collection of background data related to the industrial sector, in particular core industries, which could be of benefit to individual countries when drafting their national development plans. For its part, ECA is preparing a study oriented towards certain aspects of intra-African industrial co-operation, while OAU is focusing its attention on the mobilization of financial resources.

54. In accordance with the central role for the popularization of the Decade accorded to it by the Joint Committee, UNIDO is establishing a system whereby comprehensive details of activities related to the Decade will be transmitted to the media as quickly as possible and inquiries can be dealt with authoritatively and expeditiously. These actions are being matched by other initiatives suggested by the participants in the joint ECA/OAU/UNIDO expert group meeting on the popularization of the Industrial Development Decade for Africa, held at Addis Ababa in September and October 1982.

IV. CONSTRAINTS UPON DEVELOPMENT

A. Financial requirements

55. Among the constraints encountered by African countries in their endeavours to initiate the programme for the Decade at the national level, the lack of financial resources features most prominently. Countries also point to the inadequate infrastructural facilities, the lack of adequately trained manpower, domination by foreign private enterprises, the unfavourable geographical location, the ineffective flow of information between countries and the shortage of energy resources.

56. The major constraint, however, remains the shortage of funds. It is encouraging to note that the African Development Bank has earmarked \$US 1 billion for financing industrial investment projects in Africa in the period 1982-1986. It is also to be hoped that the management problems surrounding the African Industrial Development Fund can be overcome. However, the scale of investment is such that a start must be made in self-reliance. Domestic savings leading to investment must increase and be matched by comparable efforts on the part of bilateral and multilateral agencies so as to ensure that the essential foreign exchange requirement is met.

57. This factor will take on increasing importance during the current Decade, for the indications are that many oil-importing African countries will be confronted with an acute foreign exchange constraint, the implication being that they will stand in still greater need of programme aid. Furthermore, in the most recent World Economic Survey, 11/ emphasis is placed on lessening strains in the international monetary and financial system as a means of restoring to the developing countries some space for manoeuvre in domestic policy. In more general terms, a greater measure of economic co-operation, both North-South and South-South, is a shared requirement for sustained economic growth in Africa and economic recovery in general.

58. At present, however, growth in fixed investment is on the decline. This trend not only impinges heavily on growth prospects in the short term, but it also prevents a faster pace of structural and technological change. Although the developing countries are making every effort to increase their savings, the savings rate is dependent on exports, which in the case of Africa have declined (see paragraph 14 above). Furthermore, only when the international financial and trading environment is substantially reoriented will it be possible to secure all essential long-term capital. Since in the

low-income countries, which are heavily represented in Africa and hardest hit by recent world market contractions, official development assistance (ODA) constitutes a main element in financing the imported content of fixed investment, a substantial increase in ODA is of particular importance to them.

59. This lack of funds is all the more distressing when one recalls other awesomely destructive purposes for which funds are lavishly used. World expenditure on arms, for example, exceeded \$US 650 billion in 1982. On the other hand, the requirements for new investments in selected priority projects in Africa for the Decade are \$US 140 billion. ^{12/} Reluctance to provide the crucial initial funds is even more distressing in the light of the vast human and natural resource potential offered by Africa and its markets. In a world of closely interdependent economies, an appreciable contribution by the developed countries to the effective utilization of that potential would undoubtedly be in the interests of progress and prosperity throughout the world.

B. Human skills

60. Although development calls for industrial equipment and finance, no progress can be achieved without a competent and motivated work force capable of absorbing and applying the broad range of technology and skills needed. In a recent article, ^{13/} attention was also drawn to the pitfalls that beset the implementation of development plans at the national level. The first of these were deficiencies in the national plans themselves, which were often over-ambitious. In the case of the programme for the Decade, however, these shortcomings can be avoided by concentrating on core industry and other priority projects that meet the criteria that have been developed for the selection of national and multinational projects. By means of appropriate training programmes, it will be possible to overcome the shortage of trained planning personnel and reliable data that are essential to effective planning.

61. Furthermore, the new technologies introduced must be suited to the local environment and the development of human resources should be geared to those technologies. At present, training policies are weak and programmes are overly dependent on external training schemes. Education and training programmes often fail to match local industrial requirements, and information on the supply and demand of industrial manpower is frequently inadequate. Consequently, any human resource development initiatives have to take account of the broad range of skills (managerial, scientific and technological) required for the entire industrialization process, including the services sector. This, in turn, calls for a careful reconsideration of present educational resources and the establishment of a sound scientific basis: an undertaking that could be facilitated by earmarking a certain minimum percentage of the GNP for the development of scientific and technological capabilities.

C. Energy, infrastructure and other factors

62. As indicated in paragraphs 5-6, another constraint stems from the energy problems that beset Africa; although the region's energy resources, both traditional and non-traditional, are quite substantial, with appreciable potential in new and renewable sources of energy, they are not evenly distributed across the region. Petroleum deposits are mainly to be found in North Africa, hydroelectric resources in Central Africa, geothermal potential along the Rift Valley in East Africa and coal deposits in the southern and south-eastern regions of the continent.

63. Oil, which is a dominant feature in Africa's energy consumption, is produced in only a few countries; no more than eight countries in the region are net exporters of oil. A great number of countries have to import their energy requirements (18 countries in the region import between 75 and 100 per cent of the energy they consume) and many are heavily dependent on oil imports, which have become increasingly expensive. The balance-of-payment difficulties that this situation has brought about, and the resultant energy shortages, have slowed down industrial activity in the region.

64. An important limiting factor is the absence of integrated industrial and energy policies in the region and the lack of co-ordinated programmes pertaining to hydroelectric power, biomass and other energy options that offer a major potential to the region. Clearly, a comprehensive energy programme for the region is needed, for which extensive financial support will be required.

65. The relative lack of infrastructure for industrial and technological development and in regard to transport and communications is also a major constraint. However, several causes of implementation failure lie outside the competence of the planner. Of these causes, changes in world economic conditions feature prominently, all the more so as African countries have open, externally oriented economies and are particularly vulnerable. Being essentially agricultural, the economies of Africa are also susceptible to the vagaries of weather, while another frequent constraint in the past has been that the priorities of the constantly changing political environment were contrary to those of national development plans.

V. FUTURE PROSPECTS

66. With responsibility for the implementation of the programme for the Decade resting predominantly with the African countries themselves, the importance of overcoming the constraints described above is apparent; the countries must take the lead and adopt policies that support industrial growth. They must take steps to incorporate the concepts of the Decade in their development plans and allocate adequate financial resources, primarily to the development of core industries. They must strengthen or establish the institutional mechanisms needed to implement the programme, such as national co-ordinating committees and operational focal points. They should also develop the requisite manpower, including industrial entrepreneurs and other factor inputs, and readjust their economic co-operation agreements so as to accord priority to the programme for the Decade. They should take steps to

strengthen their technological capabilities, bearing in mind the potential of technological advances, as well as their limitations. Concerted action should also be taken to mobilize both local and external financial resources for the Decade. This would require the preparation of sound investment projects and the strengthening or establishment of national mechanisms for investment promotion and industrial financing.

67. At the subregional level, political and financial commitments must be made to promote genuine intra-African industrial co-operation. To this end, steps should be taken to strengthen or establish regional institutional arrangements for the preparation, promotion, implementation and monitoring of multinational core industrial projects. Attention should also be devoted to ensuring complementarity of the raw materials and factor inputs needed for industrial development, while intra-African trade in industrial raw materials and finished products should be facilitated. At the same time, suitable mechanisms must also be developed for promoting and financing multinational industrial projects.

68. It is equally essential that the international community match those endeavours with appropriately increased flows of aid. Although external assistance to Africa is already at a relatively higher level compared with other developing regions (net ODA per capita in 1980 was \$US 24.3 for Africa as against \$US 10.3 for all developing countries), this increased aid will only have an impact if it can be directed towards well-formulated programmes. This calls for a reorientation of aid policies and an assurance that the assistance provided is suited to the industrial needs of the individual countries and supports the industrial priorities of the region.

69. It must also be stressed that the solution to Africa's problems will not come about as a result of an upturn in the economies of the developed countries alone. While recognizing the close link between the economies of the industrialized and developing countries, market forces by themselves will not provide the requisite driving force. It should also be recognized that, since the North alone is no longer the engine of growth that it once was, South-South co-operation takes on renewed importance. By co-operating among themselves, the developing countries, in general, would be able to increase their leverage in international relations; Africa, in particular, would be enabled to expand its exports to developing regions. Given that industry plays a major role in long-term development because it can impart dynamism to the economy and reduce dependence on external sources, it follows that the promotion of industrialization will facilitate the shift from stagnation to growth. In this endeavour, the African countries will need massive financial and technical assistance from the international community: failure to adopt such a course of action will only result in further weakening and impoverishing Africa for future generations.

Notes

1/ World Bank, World Development Report 1983 (Washington, D.C., 1983), technical appendix, table 1.

2/ See The World Bank Annual Report 1982 (Washington, D.C., World Bank, 1982), statistical annex, table 1.

3/ Economic Commission for Africa, ECA and Africa's Development 1983-2008: A Preliminary Perspective Study (Addis Ababa, 1983), para.22.

4/ Economic Commission for Africa, "Status of energy resources in Africa" (December 1982).

5/ Economic Commission for Africa, ECA and Africa's Development 1983-2008: A Preliminary Perspective Study (Addis Ababa, 1983), para.6.

6/ World Bank, World Development Report 1982 (Washington, D.C., 1982), technical appendix, table 6.

7/ Economic Commission for Africa, ECA and Africa's Development 1983-2008: A Preliminary Perspective Study (Addis Ababa, 1983), para.21.

8/ Published in 1982 under the symbol ID/287.

9/ For further details, see ID/B/274 and ID/B/297.

10/ See also the report of the Joint OAU/UNIDO Symposium on Industrial Technology in Africa in "Industrial technology in Africa: a preliminary view" (UNIDO/IS.222).

11/ World Economic Survey 1983: Current Trends and Policies in the World Economy, (United Nations publication, Sales No.E.83.II.C.1), pp.18-19.

12/ See "A programme for the Industrial Development Decade for Africa" (ID/287), table 1.

13/ Tony Killick, "Development planning in Africa: experiences, weaknesses and prescriptions", Development Policy Review (London, Beverly Hills and New Delhi, (SAGE), 1983), vol. 1, pp. 47-76.

