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INDUSTRIAL DEVELOPMENT IN THE CONTEXT OF THE INDUSTRIAL DEVELOPMENT DECADE FOR AFRICA: PRIORITY MEDIUM- AND LONG-TERM MEASURES

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### I. INTRODUCTION

1. The Programme for the Industrial Development Decade for Africa, which aims at promoting the attainment of self-sustaining industrialization and self-reliant development, was formulated as a means for implementing the industrial chapter of the Lagos Plan of Action. It was endorsed by the twentieth OAU Assembly of Heads of State and Government in November 1984, and earlier by the United Nations General Assembly. The programme sets out specific objectives to be achieved in the industrial sector as well as the priority industrial subsectors on which efforts at national, subregional and multinational levels should be concentrated. Institutional mechanisms and criteria for identifying priorities in the industrial sector were designed to facilitate the achievements of these objectives at the national, regional and international levels. Furthermore, member States set themselves to achieve targets of 1.4 per cent and 2 per cent of the world industrial production by 1990 and the year 2000 respectively against the 0.9 per cent attained in 1980.

2. The programme of the Decade is divided into two phases, preparatory phase (1980-1984) and implementation phase (1985-1990) with the following objectives:

(a) The satisfaction of basic needs of the population, (food, clothing, shelter, transport and energy and building materials);

(b) The exploitation of local natural resources;

(c) The creation of jobs;

(d) The establishment of a base for developing other economic sectors;

(e) The creation of the basis for assimilating and promoting technological progress;

(f) The modernization of society through the development of a sound basis for self-sustaining industrialization by 1990;

(g) Encouragement of resource-based industries; the core engineering industries; intra- and inter-sectoral linkages; and greater flow of financial resources into the industrial sector.

### II. THE PERFORMANCE OF THE INDUSTRIAL SECTOR IN THE CURRENT ECONOMIC CRISIS

### A. Major features of the poor performance

3. The economic crisis started at the same time when the member States began to implement the preparatory phase for the implementation of the IDDA (1980-1984). Indeed, at the seventh Conference of African Ministers of Industry, progress was reported on preparatory activities undertaken at the national level for the implementation of the Decade, in particular the establishment of national coordinating committees and national focal points; the realignment of industrial policies and strategies and incorporating the ideas, projects and programmes of E/ECA/CM.11/63 Page 2

the IDDA in national development plans. During this time, multicountry projects were selected by governments themselves, among other things, for implementation,

4. As a result of the crisis, member States have encountered serious problems in their efforts to implement the IDDA Programme. Most of them are confronted with problems of economic survival; as such their efforts have been diverted from industrial development to crisis management of their economies. The industrial sector itself has been beset by a multitude of problems, mainly caused by the current shortage of foreign exchange which resulted in, and partly due to:

(a) Shortage of spare parts, raw materials, other factor inputs and maintenance supplies due to unavailability of foreign exchange with which to procure them externally;

(b) Underutilization of installed industrial capacity and closure of factories in some countries:

(c) The majority of industries have failed to make a positive contribution to the economy; in fact they use foreign exchange without generating it; they depend on subsidies; they are loss makers; and generally unviable investments;

(d) Underdevelopment of natural resources and physical infrastructure; insufficient diversification of products;

(e) Lack of clearly defined industrial strategies and policies, national and subregional; inadequate co-ordination of policies at the subregional and regional levels;

(f) Because the industrial sector is unable to produce products for markets which are now unable to obtain imported products, commodity shortages have been experienced by the majority of the member States.

B. Nature of the crisis

These problems) are contributing to the near-collapse of industrial sectors as 5. evidenced by the decline and failure of industries, uneconomic operation of industries the closing down of factories in some countries, unsatisfactory contribution of industries to employment, negative growth rates and low value added.

والمتحج والمرود المرود ا In general, the basic problem of the industrial sector in member States has 6. been on the supply side, unlike the situation in developed countries where the problem is in most cases associated with a slack in demand. The industrial policies of most member States have emphasized the utilization of export earnings to finance investments and relied on foreign exchange to finance the factor inputs such as importation of capital, raw materials, skilled manpower, maintenance supplies and spare parts. This has lead to a very strong link between industrial enterprises with foreign participation in Africa (in the form of either equity or management) and the parent companies in "the countries of origin". Thus, industrial establishments in the majority of the member States are purely market outlets for the purpose of export, market sharing of transnational corporations participating in such enterprises.

### C. Decisions of the twentieth Assembly, of, Heads of State and Government of OAU

7. The above factors were fully debated at the twentieth OAU Summit bearing in mind the economic and social conditions in Africa during the current crisis. The Assembly, after an exhaustive debate on this matter, decided to devote its twentyfirst Assembly this year to discussing economic matters with particular emphasis on:

(a) The progress made in the implementation of the Lagos Plan of Action and definition of new measures for an earlier attainment of the objectives of the Plan;

(b) The formulation of an emergency programme for Africa comprising immediate measures in the priority economic areas (particularly in the agricultural and food sectors);

(c) The establishment of a common platform for action intended for the specialized agencies of the United Nations system on international economic issues of economic interest to Africa.

111. THE INDUSTRIAL RECOVERY PROGRAMME AND THE FURTHER IMPLEMENTATION OF THE IDDA

A. <u>Rehabilitation and recovery programme for priority industries</u> in the current crisis situation - short-term measures

8. As first step in reacting to the crisis in the industrial sector, each country should set criteria for rehabilitation and recovery and a basis for reallocation of available resources. While such criteria might vary from country to country according to prevailing circumstances, priority should be given to industries providing inputs to food and agromindustries, agricultural implements and tools, fertilizers, transportation of food, spare parts and those which encourage greater use of local raw materials. In formulating national rehabilitation and recovery programme, the following should be aimed at:

(a) Identification of priority industries which must not be allowed to collapse under the pressures brought about by the current crisis in the economies of African countries, and allocation of adequate resources to them;

(b) Formulation of measures aimed at arresting the current economic crisis in order to pre-empt the total collapse of the industrial sectors;

(c) Promotion of policy recommendations, measures and instruments aimed at: first, reversing the past trends of external dependence; secondly, restraining stagnation and the start of de-industrialization; and thirdly, strengthening the presently weak industrial structures thereby creating preconditions for meaningful industrialization.

9. This entails the following:

(a) The implementation of priority projects and industries identified above;

(b) The rationalization of existing industries through merging of firms and linking of companies in order to fill gaps in existing weak production structures,

and to facilitate production of spare parts as well as achieve greater use of local raw materials;

(c) The reduction of variety and range of products in order to facilitate standardization and easier production of spare parts;

(d) The substitution of imported inputs by locally available inputs for priority industries and projects;

(e) The local production of spare parts and development of maintenance capability for priority industries;

(f) The re-conditioning of abandoned equipment, plant and machinery;

(g) The review of equity holding and management agreements for existing industries/enterprises with the view to reducing foreign equity in order to minimize capital outflow and leakages through repatriation of profit and transfer pricing;

(h) Governments should recognize, offer incentives to and encourage local entrepreneurs, farmers, manufacturers, chambers of commerce and industry and should have continuous dialogue with them in order to formulate industrial rehabilitation and recovery policies for overcoming the industrial crisis;

(i) The African Development Bank (ADB) and other financial institutions, in particular the World Bank, should provide financial aid support to this programme, especially to the viable industrial projects related to rehabilitation and recovery;

(j) UNIDO, UNDP and other relevant international organizations and bilateral donors should intensify their technical assistance to African countries and organizations in the formulation of programme, mobilization of resources and implementation of recovery projects.

### B. Medium- and long-term proposals in the context of the IDDA

10. Solutions to the present economic crisis in Africa lie in the steady, individual and collective determination of African Governments to implement the industrial priorities of the IDDA programme as adopted by the Sixth Conference of African Ministers of Industry in 1981. In adding a new dimension to already ongoing economic difficulties, the present crisis calls for a reorientation of industrial policies and programmes in order to select those critical elements missing in the African economies to maintain the momentum for the effective implementation of the IDDA programme and arrest an increasing de-industrialization situation in the continent. In this connection, account should be taken of the fact that the developed countries are now using the crisis as an excuse to force African countries to abandon their industrialization programmes or, at least, concentrate on rehabilitation and full capacity utilization and better management of existing industries. The following measures should therefore be taken:

# (a) Reallocation of new resources, on the basis of reappraised industrial strategies and policies and related institutional machinery

11. In reallocating new resources, priority and incentives should be given to those industries operating in the:

(a) Search for and processing of local raw substitutes;

(b) Production of intermediate inputs for local use (national, subregional or regional)

(c) Backward and forward integration of the economy by giving incentives to existing companies or by creating subsidiaries to do so in investing for their own local raw materials and intermediate inputs

(d) Use of local substitutes;

- (e) Large share export-oriented industries and earning foreign exchange;
- (f) Industries providing inputs to existing industries;
- (g) Industries closing gaps in production structures;
- (h) Promotion of intra-African trade in raw materials.

12. Parallelly, African Governments should take measures to gradually reduce foreign equity in companies operating in consumer goods and services industries to prevent non-justified outside transfer of financial resources badly needed for local investment. They should also discourage low value added industries and those industries operating on continuous government subsidies and undertake a rationalization exercise of existing industries based on their contribution to the basic needs of the population and their backward and forward impact in the change of the present weak structure of the economies.

> (b) <u>Relevant choice of industries to benefit reallocation of</u> new resource:

13. During the Decade period, governments are expected to lay the foundation for the phased development of basic industries which are essential to self-reliance and self-sustained industrialization since they provide inputs to other sectors. It is therefore recommended to governments to give full support and invest heavily at national, subregional and regional levels in those basic industries, namely:

### (i) Resources-based national core industries

14. These include processed food, leather products, wood-based industries, textiles, clothing and related products, pulp and paper products, crude chemicals and metals. Each country should embark upon the production of two or three product categories or groups based on natural resources available in each country or in the subregion or region preferably. Resource-based cores offer the following advantages; E/ECA/CM.11/63 Page 6

existence of dynamic domestic demand for basic needs of the majority on the population, scope for development of specific branch of technology, scope of wide range of plants (small-scale, crafts, medium and relatively large indigenous industries, etc.), scope for wide range of absorption of manpower. Resourcebased products are relatively labour-intensive and fall within the reach of many developing countries capacities.

### (ii) Engineering core industries

15. A self-reliant and self-sustained industrialization requires that the engineering and allied metal working industries be developed as rapidly as possible by virtue of their providing an integrated and interlinked development for producing basic equipment and machine tools, as well as intermediate and capital goods for use in priority sectors of agro-industries, building materials, metallurgical, chemical, forest industries and energy as established by the Lagos Plan of Action. Core engineering industries encompass general purpose machine tools, foundries, forging units, heat treatment, metal coating and machine shops.

### (iii) Resource-based and other priority projects requiring inter-country co-operation

16. Besides the engineering core, the other major structural gaps are:

(a) The development and promotion of intermediate inputs and raw materials processing projects in iron and steel, copper, aluminium, and basic chemicals (ammonia, sulphuric acid, potash, etc.) needed for the manufacture of a whole range of metallic and steel by-products, different types of fertilizers and pesticides, specially destined towards food production;

(b) Production of agricultural implements and tools, transport equipment, construction equipment and energy transmission equipment again to help in food production, storage distribution at national, subregional and regional levels and interlink with other economic sectors;

(c) Production of selected and specific technical inputs to make their economies self-reliant and self-sustained through division of labour (complementarity and specialization) nationally and regionally.

17. Taking into account the scope and magnitude of the challenge in laying the foundation for self-reliant and self-sustained industrial development, it is recommended:

(a) First and foremost, all industrial policies and programmes should be aimed at integrated and intersectorial approach to development. No industrial enterprise which does not use substantial local raw material and other inputs should be set up;

(b) Secondly, African countries should strive at importing or developing labour-intensive technologies and those technologies leading to increased employment and development of skilled industrial manpower; (c) Thirdly, African countries should select and concentrate on industries that would have greatest dynamic advantages and maximum linkages (forward, backward, lateral, vertical, etc., linkages);

(d) Fourthly, African countries should take necessary measures to increase indigenous participation in foreign industrial enterprises as a means of conserving and arresting drain of foreign exchange and controlling and participating decisively in their decision-making and management;

(e) Fifthly, the possibility of achieving a breakthrough in industrialization for the majority of African countries depends largely on the ability of African countries to promote industrial and technological co-operation, pooling resources for joint industrial enterprises at intercountry and subregional levels.

18. Indeed, considering the present structural weakness of most African economies and the magnitude of the challenge of industrialization, regional industrial cooperation is essential as very few countries are endowed with natural resources, finance and capabilities to venture in basic core industries. In this direction, ECA together with some African countries in a subregion has identified viable subregional projects for intercountry promotion and made proposals with regard to the modalities of their implementation.

## (iv) Identified subregional projects and modalities of their implementation

19. A number of projects among the resource-based and other priority projects referred to above have been identified for intercountry co-operation and promotion and on which consultations have started or are being initiated. Their implementation constitutes an immediate challenge. These include:

- (a) Eastern and Southern African subregion
  - (i) Ziscosteel project (iron and steel), Zimbabwe (promoter);
  - (ii) Ammonia/urea project, United Republic of Tanzania (promoter);
  - (iii) Potash project, Ethiopia;
    - (iv) Phosphate fertilizer project, Uganda;
- (b) West African subregion
  - (i) Iron and steel project, Mano River Union (MRU) countries;
  - (ii) Phosphoric acid project, Togo;
  - (iii) Ammonia project, the Ivory Coast;

- (c) <u>Central African subregion</u>
  - (i) Maluku steel plant, Zaire;
  - (ii) Petro-chemicals, Gabon;
  - (iii) Pharmaceuticals, CEPGL and UDEAC;
  - (111) Pharmaceuticals, CEPGL and UDEAC;
- (d) North African subregion
- (i) Pulp and paper project, the Sudan.

20. The above list is not exhaustive and the selection of intercountry projects is a continuous process. A more detailed list of potential intercountry projects is annexed to this paper. In order to respond adequately to the decisions of the member States in this field, intergovernmental consultation meetings among primary and secondary projects promoters on negotiation and investment promotion should be convened to work out the modalities and mechanisms for project implementation

# (a) Modalities and mechanisms for implementation of intercountry projects

21. As a basis for consultations and negotiations, the following modalities and mechanisms of implementing the identified subregional projects are proposed:

### (i) Areas and activities for co-operation

22. Exploitation and exchange of raw materials and energy: Whereby member State of a subregion agree to secure their industrial raw materials and energy from within the subregion (or region) and/or to jointly explore and exploit their relevant material resources for the required raw materials, a joint "Materials Standardization and Testing Centre" could also be considered.

23. Production and exchange of intermediate and semi-finished inputs: There are many examples in metals, engineering and chemicals to illustrate the various options available for co-operation, through exchange of intermediate inputs at the various stages of processing, fabrication and formulation. This approach is especially important for solving problems relating to economies of scale, including existing excess capacities. Alternatively, joint facilities could be created for manufacture of spare parts (say for cement, fertilizer, textiles, paper, electrical industries, etc.) where there is a great deal of communality in the specifications of the parent equipment.

24. Subcontracting. This approach fits very well the objectives of co-operation involving engineering parts and components as well as certain chemicals and the fabrication/processing and assembling/formulation. The approach also solves the problems arising from scales of investment and operations, providing opportunities for complementarity and specialization in the manufacture and exchange of parts, components, accessories, intermediate and semi-finished products thereby contributing to diversification of production. 25. <u>Markets and marketing</u>: Whereby two or more countries agree to open their markets to products arising from certain specified national or joint projects, this approach may be useful also for diversification of product lines and product mix. It may be extended to co-operation in distribution of products as well as joint pricing policies or joint marketing and establishment of common warehouses in the export markets (outside Africa).

26. Finance: Co-operation may involve pooling or joint mobilization of investment capital, providing joint loan guarantees or joint contracting, intercountry purchase agreements and buy back arrangements.

27. Joint ventures: Enterprises of various countries could undertake joint ventures in manufacturing resulting in savings of investment and reduction of costs. They may be based on equity participation, production-sparing or profit sharing arrangements, service contracts (for raw materials), buy-back agreements, etc. or any combination of these. Joint ventures could also be used as a nucleus stimulating other production links, provided they are flexible enough to adopt to needs for forward and backward linkages. Gradually, manufacturing joint ventures could be supplemented by linkages with transport, raw materials sourcing, purchase contracts, training and related activities. Joint ventures in consulting engineering and business consultancy services also deserve attention as they lead to investment and industrial implementation related to a variety of manufacturing activities.

23. Joint industrial programming (5-10 years): This approach could proceed gradually involving programming on subsectoral basis such as for metal manufacture and machinery industry. It provides systematic rationalization and harmonization of industrial investment activities, reinforced by rationalization in other ways, e.g. forms of training, R & D, common technological development programmes, financing systems, standards, transport, institutions, etc. joint programming may also be limited to selective free trade arrangements in certain products (e.g., raw materials, intermediates, equipment, components and parts) perhaps based on longterm purchase agreements which ensure optimum capacity utilization of given plants.

29. Multinational enterprise: Co-operation arrangements at the enterprise level can be of a very diversified nature. This approach applies to industrial co-operation between States but limited to industrial areas and action related to operation of production facilities that are not covered under the other arrangements.

30. <u>Manpower development and training</u>: Exchange or joint training of specialists or personnel in corporate planning, management, contract negotiations, choice of technology, R & D, industrial engineering, market promotion and marketing, involving training institutes, teaching companies or in-plant training.

31. <u>Intrepreneurship</u>: Co-operation in encouraging indigenous investors (public and private) through appropriate incentives and support services to actually assume increasing responsibilities in promoting industrial and other related but diversified activities at national and multinational levels. This method entails also co-ordination of investment codes for foreign investors at least in relation to projects of mutual interest, with a view to achieving maximum effectiveness in creation of productive capacities.

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### (ii) Mechanisms for co-operation

32. The mechanisms for handling the activities and areas for co-operation range from a simple arrangement for supply/purchase of raw materials, intermediates or finished products, to the most sophisticated arrangements involving institutional set-ups such as holding companies or corporations. Some specific mechanisms are suggested here below:

33. <u>Mational associations of manufacturers</u>: Imply co-operating with similar associations in participating States to arrive at complementarity agreements in chosen product lines or branches of industry. While the associations would act as umbrella for the co-operation arrangements, actual consultations and negotiations should involve the manufacturers actually involved in the product lines concerned. Establishment of national associations for specific products (iron and steel, cement, pharmaceuticals, food processing, etc.) would set the stage for subsectoral multinational corporations.

34. Subsectoral multinational corporations: Authorized by participating States to act as umbrella for promotion of investment, production, distribution and marketing and R & D in the subsector concerned. Such mechanism would play a fundamental role in making use of expanded (subregional) market opportunities, particularly those stemming from complementarity agreements which should normally provide the necessary operational framework.

35. <u>Multinational industrial holding company</u>: Whereby participating States hold equity investment shares in equal or varying proportions, the company would be responsible for establishing industrial enterprises at national and multinational levels and empowered by the participating States to found industrial subsidiaries. Participation of banks or regional financial institutions in equity capital of the enterprises on the company could perform a catalytic role in promoting joint ventures.

36. <u>Subsectoral national corporations</u>; or their equivalents (such as "national industrial panels of manufacturers" in given product lines) supported by government, could serve as focal points for developing given subsectors at the national level and forging operational relationships with the corresponding subsectoral multinational corporations. To facilitate the co-operation arrangements, the managers of the national corporations could constitute the Board of Directors of the multinational corporations or multinational enterprises.

### (iii) The role of indigenous enterprises in th industrial co-operation ventures

37. The indigenous enterprises, both public and private, are best suited for the tasks of industrial collaboration in the region due to the following factors:

(a) They generally reflect national industrial development objectives and, in case of public enterprises, they are especially created for the specific purpose of implementing the national objectives; (b) Indigenous enterprises are the principal instruments for innovation, development and acquisition of technology, unlike the externally oriented intentions of foreign enterprise concerning these objectives;

(c) Indigenous enterprises are the main instruments which a country can use to spearhead new product areas, for investment in strategic projects and for establishing linkages with agriculture and the rural areas;

(d) Unlike the foreign enterprises which are primarily oriented to promotion of imports of intermediate inputs from their parent and subsidiary companies abroad, the indigenous African enterprises are the most effective national instruments for collaborating among themselves in the development of basic inputs such as iron and steel, basic chemicals and promoting intra-African trade;

(e) Indigenous enterprises, unlike foreign enterprises, are likely to reinvest their savings locally and to deepen industrial collaboration within the region thus enhancing self-reliant and self-sustained development.

38. In view of these considerations, it is only logical that well selected indigenous agents of production and distribution should be represented in the national negotiation teams. Such representation could involve African chambers of commerce and industry, or manufacturers and their associations as well as local consulting firms from the outset of a project, increasing their participation as the project develops towards the investment stage.

## (iv) Initiation of consultations and negotiations on the implementation of the identified multinational projects

39. The provision of adequate administrative instruments to sustain consultations, negotiations and co-ordination is perhaps the most important institutional aspect of collaborating multinational groups, since this is required to ensure effective participation of all the several interests concerned. Such interests involve, besides government departments, also public corporations, private entrepreneurs, manufacturers associations, chambers of commerce, banks, research institutes, etc.

40. A key feature of governmental machinery within each participating country in a multinational project is the establishment of a unit, supported by a specialized committee of experts, to co-ordinate both policy formulation and the implementation of the project on multinational basis. This national unit will be responsible also for nominating the country's teams for negotiations. Similar arrangements should be made at multinational level to establish a specialized joint committee in each area of concern by the participating countries.

41. The host country at the primary promoter through its national co-ordinating committee should take the lead in carrying out preliminary activities related to the project concerned, i.e., preparing pre-investment studies and contacting secondary promoters and other financial promoters and partners. Then, it should convene consultations and negotiations meeting within the framework of regional economic groupings such as ECOWAS, PTA, ECCAS and other appropriate fora and should play a leading role in investment promotion.

#### I. Eastern and Southern Africa

### (a) Metallurgical industries

- 1. Upgrading and diversification of products from ZISCOSTEEL, Zimbabwe;
- 2. Integrated iron and steel mill in Kenya;
- 3. Direct reduction plants in Angola, Mozambique and Madagascar.

### (b) Engineering industries

- 1. Manufacture of diesel engines and chassis for tractors, trucks, lorries, buses, Zimbabwe, Kenya (engines) and Ethiopia, Mozambique and the United Republic of Tanzania (chassis);
- 111 1 11 2. Manufacture of low-cost standard multi-purpose vehicles in Botswana, Madagascar, Mozambique, Uganda and Zambia;

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- 3. Manufacture of tractors in Zimbabwe;
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- 4. Manufacture of irrigation equipment in Zambia,
- 5. Production of sections and bars for high-tension electricity transmission in the subregion;
- 6. Manufacture of transformers in Zambia.

### (c) Chemical industry

- 1. Ethiopian potash plant in Ethiopia;
- 2. Tanzania ammonia/urea plant in the United Republic of Tanzania;
- 3. Uganda phosphate fertilizer plants in Uganda, Kenya and Zimbabwe.

#### West Africa II.

### (a) Metallurgical industries

- 1. Mano River Union iron and steel project;
- 2. Electric arc furnace plants and re-rolling mills; in Benin, Burkina Faso, Ghana, the Ivory Coast, Mali, the Niger, Senegal and Togo;

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3. A project for an integrated iron and steel plant for tubes and flat products in the subregion.

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- (b) Engineering industries
  - 1. Manufacture of tractors and agricultural implements in Nigeria, Senegal and Sierra Leone;
  - Manufacture of diesel-engines for irrigation pumps and generators in Guinea;
  - 3. Manufacture of railwagons in Senegal and Burkina Faso;
    - 4. Manufacture of aluminium conductors and cables in Ghana and Guinea;
    - 5. Manufacture of power transformers in Togo;
    - 6. Manufacture of steel towers for high-tension electricity transmission in Nigeria;
    - 7. Manufacture of diesel engines and chassis for tractors, trucks, lorries and buses in the Ivory Coast, Guinea and Nigeria;
    - 8. Manufacture of low cost multi-purpose vehicles in Guinea and the Ivory Coast.

### (c) Chemical industries

- 1. Phosphoric acid plants in Senegal and Togo;
- 2. Ammonia project;
- 3. Pharmaceutical plants in Nigeria and Sierra Leone;
- 4. Pesticides plant (phytosanitary products) in Burkina Faso.
- (d) Agro and agro-based industries
  - 1. Pulp and paper plant by ECOWAS.
- (e) Building materials industry
  - 1. Cement plant by ECOWAS;
  - 2. Ceramies plant by ECOWAS.

### III. Central Africa

- (a) Agro and agro-industries
  - (b) Metallurgical industries
    - 1. Integrated development of the aluminium industry in Cameroon;
    - 2. Rehabilitation of the Maluku plant in Zaire;
    - 3. Expansion of a tin plant in Rwanda.

### (c) Engineering industries

- 1. Manufacture of agricultural equipment and machinery in Rwanda;
- 2. Manufacture of electrical equipment in Rwanda.

### (d) Chemical industries

- 1. Establishment of a petrochemical complex for the manufacture of plastic products in Gabon;
- 2. Expansion of a petroleum refinery in the Congo;
- 3. Manufacture of active ingredients for pesticides in CEPGL;
- 4. Production of ammonia fertilizers in CEPGL;
- 5. Upgrading potash deposits for the manufacture of chemicals in the Congo;
- 6. Production of calcium carbide in Rwanda;
- 7. Establishment of methanol plant in Zaire and Rwanda;
- 8. Expansion and diversification of production of the glass manufacturing plant in the Congo and Burundi.

### IV. North Africa

- (a) Engineering industries
  - 1. Manufacture of pumps for irrigation purposes;
  - 2. Manufacture of diesel engines for tractors, trucks, lorries and buses;
  - 3. Establishment of a diesel engine manufacturing plant in Tunisia;
  - 4. Manufacture of lathes and milling machines in Morocco;
  - 5. Manufacture of wood-working machinery in Tunisia;
  - Manufacture of refregerator compressors and establishment of a compressor plant.
- (b) Agro and agro-based industries
- (c) Chemical industries
  - 1. Lithopone plant in Tunisia;
  - 2. Sheet glass plant in the Sudan.