

CHAPTER IX
INDUSTRY, SCIENCE, TECHNOLOGY, ENERGY, NATURAL RESOURCES
AND ENVIRONMENT

Article 48

Industry

- 1. For the purpose of promoting industrial development of Member States and integrating their economies, Member States shall within the Community harmonize their industrialisation policies.**
- 2. In this connection, Member States shall:**
 - (a) Strengthen the industrial base of the Community, in order to modernize the priority sectors and foster self-sustained and self-reliant development;**
 - (b) Promote joint industrial development projects at regional and Community levels, as well as the creation of African multinational enterprises in priority industrial sub-sectors likely to contribute to the development of agriculture, transport and communications, natural resources and energy.**

Article 49

Industrial Development

In order to create a solid basis for industrialisation and promote collective self-reliance, Member States shall:

- (a) Ensure the development of the following basic industries essential for collective self-reliance and the modernisation of priority sectors of the economy:**
 - (i) Food and agro-based industries;**
 - (ii) Building and construction industries;**
 - (iii) Metallurgical industries;**
 - (iv) Mechanical industries;**
 - (v) Electrical and electronics industries;**
 - (vi) Chemical and petro-chemical industries;**
 - (vii) Forestry industries;**
 - (viii) Energy industries;**

- (ix) Textile and leather industries;
 - (x) Transport and communications industries; and
 - (xi) Biotechnology industries;
- (b) Ensure the promotion of small-scale industries with a view to enhancing the generation of employment opportunities in Member States;
 - (c) Promote intermediate industries that have strong linkages to the economy in order to increase the local component of industrial output within the Community;
 - (d) Prepare master plans at regional and Community levels for the establishment of African multinational industries particularly those whose construction cost and volumes of production exceed national financial and absorptive capacities;
 - (e) Strengthen and establish, where they do not exist, specialised institutions for the financing of African multinational industrial projects;
 - (f) Facilitate the establishment of African multinational enterprises and encourage and give financial and technical support to African entrepreneurs;
 - (g) Promote the sale and consumption of strategic industrial products manufactured in Member States;
 - (h) Promote technical co-operation and the exchange of experience in the field of industrial technology and implement technical training programmes among Member States;
 - (i) Strengthen the existing multinational institutions, particularly, the African Regional Centre for Technology, the African Regional Centre for Design and Manufacture and the African Industrial Development Fund;
 - (j) Establish a data and statistical information base to serve industrial development at the regional and continental levels;
 - (k) Promote South-South and North-South co-operation for the attainment of industrialisation objectives in Africa;
 - (l) Promote industrial specialisation in order to enhance the complementarity of African economies and expand the intra-Community trade base, due account being taken of national and regional resource endowments; and
 - (m) Adopt common standards and appropriate quality control systems, which are crucial to industrial co-operation and integration.

Article 50

Protocol on Industry

For the purposes of Articles 48 and 49 of this Treaty, Member States agree to cooperate in accordance with the provisions of the Protocol on Industry.

Article 51

Science and Technology

1. Member States shall:

- (a) Strengthen scientific and technological capabilities in order to bring about the socio-economic transformation required to improve the quality of life of their population, particularly that of the rural populations;**
- (b) Ensure the proper application of science and technology to the development of agriculture, transport and communications, industry, health and hygiene, energy, education and manpower and the conservation of the environment;**
- (c) Reduce their dependence and promote their individual and collective technological self-reliance;**
- (d) Cooperate in the development, acquisition and dissemination of appropriate technologies; and**
- (e) Strengthen existing scientific research institutions and, where they do not exist, establish new institutions.**

2. In the context of co-operation in this field, Member States shall:

- (a) Harmonize, at the Community level, their national policies on scientific and technological research with a view to facilitating their integration into the national economic and social development plans;**
- (b) Coordinate their programmes in applied research, research for development and scientific and technological services;**
- (c) Harmonize their national technological development plans by placing special emphasis on local technologies as well as their regulations on industrial property and transfer of technology;**
- (c) Coordinate their positions on all scientific and technical questions forming the subject of international negotiations;**
- (e) Carry out a permanent exchange of information and documentation and establish community data networks and data banks;**

- (f) **Develop joint programmes for training scientific and technological cadres, including the training and further training of skilled manpower;**
- (g) **Promote exchanges of researchers and specialists among Member States in order to make full use of the technical skills available within the Community; and**
- (h) **Revise the educational systems in order to better educational, scientific and technical training to the specific developmental needs of the African environment.**

Article 52

Scientific Research and Technological Programmes

Member States shall take all necessary measures to prepare and implement joint scientific research and technological development programmes.

Article 53

Protocol on Science and Technology

For the purposes of Articles 51 and 52 of this Treaty, Member States agree to cooperate in accordance with the provisions of the Protocol on Science and Technology.

Article 54

Energy and Natural Resources

- 1. Member States shall coordinate and harmonize their policies and programmes in the field of energy and natural resources.**
- 2. To this end, they shall:**
 - (a) Ensure the effective development of the continent's energy and natural resources;**
 - (b) Establish appropriate co-operation mechanisms with a view to ensuring a regular supply of hydrocarbons;**
 - (c) Promote the development of new and renewable energy in the framework of the policy of diversification of sources of energy;**
 - (d) Harmonize their national energy development plans;**

- (e) Articulate a common energy policy, particularly, in the field of research, exploitation, production and distribution;
- (f) Establish an adequate mechanism of concerted action and co-ordination for the collective solution of the energy development problems within the Community, particularly, those relating to energy transmission, the shortage of skilled technicians and financial resources for the implementation of energy projects of Member States; and
- (g) Promote the continuous training of skilled manpower.

Article 55

Energy

1. Member States shall cooperate in the following fields:
 - (a) Mineral and water resources;
 - (b) Nuclear energy;
 - (c) New and renewable energy.
2. They shall further:
 - (a) Seek better knowledge and undertake an assessment of their natural resources potential;
 - (b) Reduce progressively their dependence on transnational enterprises in the development of such resources, particularly through mastering exploration techniques; and
 - (c) Improve methods of pricing and marketing raw materials.

Article 56

Natural Resources

In order to promote co-operation in the area of natural resources and energy, Member States shall:

- (a) Exchange information on the prospection, mapping, production and processing of mineral resources, as well as on the prospection, exploitation and distribution of water resources;
- (b) Coordinate their programmes for development and utilisation of mineral and water resources;
- (c) Promote vertical and horizontal inter-industrial relationships, which

may be established among Member States in the course of developing such resources;

- (d) Coordinate their positions in all international negotiations on raw materials;
- (e) Develop a system of transfer of know-how and exchange of scientific, technical and economic data in remote sensing among Member States; and
- (f) Prepare and implement joint training and further training programmes for cadres in order to develop the human resources and the appropriate local technological capabilities required for the exploration, exploitation and processing of mineral and water resources.

Article 57

Protocol on Energy and Natural Resources

For the purposes of Articles 54, 55 and 56 of this Treaty, Member States shall cooperate in accordance with the provisions of the Protocol on Energy and Natural Resources.

Article 58

Environment

1. Member States undertake to promote a healthy environment. To this end, they shall adopt national, regional and continental policies, strategies and programmes and establish appropriate institutions for the protection and enhancement of the environment.
2. For the purposes of this paragraph 1 of this Article, Member States shall take the necessary measures to accelerate the reform and innovation process leading to ecologically rational, economically sound and socially acceptable development policies and programmes.

Article 59

Control of Hazardous Wastes

Member States undertake, individually and collectively, to take every appropriate step to ban the importation and dumping of hazardous wastes in their respective territories. They further undertake to cooperate in the transboundary movement,

management and processing of such wastes produced in Africa.

Article 60

Protocol on the Environment

For the purposes of Articles 58 and 59 of this Treaty, Member States shall cooperate in accordance with the provisions of the Protocol on the Environment.