

STAFF REPORT ON THE TERMINAL REPORT

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UNITED NATIONS
ECONOMIC COMMISSION FOR AFRICA
JOINT ECA/UNIDO INDUSTRY DIVISION

TERMINAL REPORT
PROJECT RAF/77/010/01/51
PROJECT TITLE: AFRICAN REGIONAL CENTRE FOR ENGINEERING
DESIGN AND MANUFACTURING

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Background and justification

The proposal for the establishment of the Centre was accorded high priority by the second and third Conferences of African Ministers of Industry held in Cairo in 1973 and in Nairobi in 1975 where the subject of creating capital goods industries was discussed. One of the major constraints to the development of such industries recognized at the meetings was the absence of engineering design capabilities in most African countries for the conception and design of machinery. At these Conferences, the idea of creating a regional institution to promote the development of machine design capabilities within the African countries was first discussed.

Currently most African countries import spare parts, components, accessories, etc. as well as farm implements, simple tools and machine tools from advanced countries in addition to capital goods and consumer goods. The demand for these inputs increases with the expansion of industrialization and this is likely to further increase the reliance on imports in the absence of any significant domestic production. Furthermore, repairs and maintenance of some of the imported equipment is done overseas at any particular time. Adaptation of technology in concrete terms such as the production of spare parts, components, simple machine tools and their design and manufacture require organized design and production capability in terms of workshops, foundries and forging facilities, skills, system of technical information and marketing. There is urgent need to upgrade existing workshops in rural and urban areas and integrate such workshops and exploit their current potential for industrial design and manufacturing as well as to upgrade existing manpower.

During its deliberations on the implementation of the Lima Declaration, especially on the question of creating facilities for production covering all the industrial branches, the fourth meeting of the Conference of African Ministers of the United Nations Economic Commission for Africa held at Kinshasa in February 1977 confirmed the determination to seek for the ways and means to establish mechanical engineering manufacturing industries. In similar fashion, the fourth Conference of African Ministers of Industry held at Kaduna in Nigeria, in November 1977 in its resolution 1(iv) reaffirmed the decision to create a regional centre for engineering design and manufacturing.

Objectives of the Project

The project aims at giving direct assistance to African countries in laying the foundation for and promoting accelerated, rational and integrated development of designing and manufacturing capability in engineering goods, particularly capital goods in strategic sectors like agriculture, transport, construction, material handling with a view to fulfilling the objectives and targets of the Lima Declaration and Plan of Action as well as Lagos Plan of Action.

Immediate objectives

- (i) To assist the member States in achieving their development objectives of higher output on indigenous basis;
- (ii) To promote designing and manufacturing capability for engineering equipment and components in African countries;

- (iii) To build up technical manpower specialized in design and manufacture of equipment which are being imported at present;
- (iv) To promote the establishment of national centres for design and manufacture and develop an integrated chain of national centres linked with the Regional Centre for Broad-based Operation;
- (v) To promote entrepreneurship for industrial plants and machinery;
- (vi) To assist African countries in rationalization and variety production of equipment and machinery for more efficient operation-maintenance as also production of these equipments within the countries themselves;
- (vii) To develop designs of specific products suiting African conditions of materials, skills, manufacturing facilities and climatic conditions.

Project plan

Phase one of the Project started in May-July 1978 with a Preparatory Mission fielded to a representative selection of African countries to collect information on and assess the current situation within African countries with regard to facilities for engineering design and design studies, foundries, forging, repair workshops and machine shops producing spare parts, components and accessories and prepare proposals for setting up the Centre. This was followed on October-November 1978 by an Ad Hoc Intergovernmental Experts meeting which considered the findings of the Preparatory Mission and recommended the creation of the Centre. Later, in April 1979 a meeting of Plenipotentiaries was convened in Cotonou, Benin. This meeting formally created the Centre when 15 African countries signed its Constitution and decided its sitting at Ibadan, Nigeria. Phase one of the project was fully implemented by 1979.

Phase Two commenced in 1980 with the signing of the host country agreement and the provision by the Federal Government of Nigeria of temporary residential and offices facilities for the preliminary activities involving the actual establishment and development phase of the Centre based on a grant of 5 million (US\$7.5 millions) towards its capital development. During Phase Two, the Executive Director of the Centre and a core administrative and technical staff have been recruited and this has led to the organization of the Centre's administration and designing centre's operational activities.

Project activities

The following project activities have been implemented:

- (i) the fielding in May-July 1978 of a four-man mission to a representative selection of African countries to assess the prevailing situation as regard to design and manufacturing capabilities in engineering products;
- (ii) the convening in October-November 1978 of an Expert Group meeting to consider the mission report;

- (iii) the holding of the meeting of Plenipotentiaries in April 1979 to decide on the Constitution and the sitting of the Centre as well as the inaugural meetings of the Executive Board and Council of the Centre which approved its work programme and budget;
- (iv) the fielding in February-March 1980 of a four-man mission to some industrialized and developing countries to collect and assess some information about the structure and operations of institutions with similar functions and objectives as the proposed Regional Centre;
- (v) the signing in July 1980 of the Headquarters agreement between the Centre and the Federal Government of Nigeria and the subsequent provision of the host country of temporary residential and offices facilities, a land of about 180 acres for the permanent site of the Centre and a grant of 5 million (US\$7.5 million) towards the capital development of the Centre;
- (vi) the convening of three meetings of the Selection and Interview Panel for the recruitment of senior technical staff;
- (vii) the convening in August 1980 of the second meeting of the Executive Board and of the Council of the Centre;
- (viii) the appointment of the Executive Director of the Centre in October 1980 and of the Head of the Administration;
- (ix) the recruitment of the Chief Technical Adviser; and
- (x) the fielding in March 1981 of a two-man mission in selected African countries to assess their priority products for development at the Centre and their training needs in design and manufacturing;
- (xi) the convening of the third Executive Board meeting in July 1981 and the meeting of the Project Implementation Committee (PIC) on the physical development of the Centre; and
- (xii) the identification for recruitment of:
 - (a) Director of design
 - (b) Director of manufacturing

Results

The major result of the project is the creation of the African Regional Centre for Engineering Design and Manufacturing (ARCEDEM). As a regional effort, the project has sensitized African Governments to the need to pool their scarce individual resources and attack problem of design capability and technical manpower development in a spirit of collective self-reliance, thus contributing to the implementation of the objectives of the Lagos Plan of Action and the Industrial Development Decade for Africa.

The project was to have assisted African countries to develop the capability to support and run the Centre by providing technical and financial backstopping until such time when African Governments are able to fully support the Centre. The continuous UNDP commitment of US\$2 million during the cycle 1982-1986 is mostly welcome in view of the slow and irregular payment of their contributions by member States.

Conclusions

Four main factors have delayed the project going full stream:

- (a) The slow and irregular payment of their contributions by member States. This has resulted in tight gearing of the recruitment of technical staff to the scarce resources available to the Centre. This has led to the scaling down on some important activities of the Centre.
- (b) The delay in acquiring the land for the permanent site of the Centre following a dispute between local Government and traditional owners of the land about compensation which took more than a year although the Host Country has paid as early 1981 its first instalment towards the capital development of the Centre.
- (c) The difficult physical and environmental conditions of work in host country.
- (d) The time it took to secure project management consultants through international tendering which finally failed and led to a formulation of a new approach in looking for indigenous consultants.
- (e) Inability of member States to identify their priority products for development and to spell out their training needs.

The capital development programme of the Centre has therefore been severely affected and most of all, training and engineering programmes have been delayed.

And yet the Centre has the mission to serve a fully recognized and real need for African industrialization. It will complement and supplement national efforts in the development of design capability and dissemination of technical know-how and training of technical industrial manpower. It will be the backbone for the development of design and manufacturing capability for engineering equipment, the buildup of technical manpower and for the promotion of entrepreneurship for industrial plants and machinery.

Together with other ECA-sponsored technical institutions such as the African Regional Centre for Transfer of Technology (Dakar) and the African Institute for Higher Technical Training and Research (Nairobi), the Centre will contribute to the regional effort to attack the technological backwardness of the continent. Therefore all efforts should be mobilized and all resources tapped to collectively support the Centre.

UNDP financial assistance is highly appreciated and any future commitment to the full success of the Centre shall be most welcome.

UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA
AS AN EXECUTING AGENCY

STATEMENT ON PROJECT EXECUTED
FOR PERIOD As at 31 December 1981

DONOR: Belgium Government

PROJECT TITLE: Establishment of a Documentation Unit in the African Trade Centre

PROJECT NUMBER:

ECA ACCOUNT NUMBER: DA5204L35

Budget Line	Description	Funds allocated for 1978	Unliquidated Obligations	Disbursements	Total Expenditures	Unencumbered Balance
1500	Travel	30,750.00	2,712.68	11,032.13	13,744.81	
5200	Reporting and Translation		—	715.22	715.22	
5320	Library Books		1,957.52	4,644.71	6,602.23	
9900	Programme Support			3,776.32	3,776.32	
	Total	30,750.00	4,670.20	20,168.38	24,838.58	5,911.42