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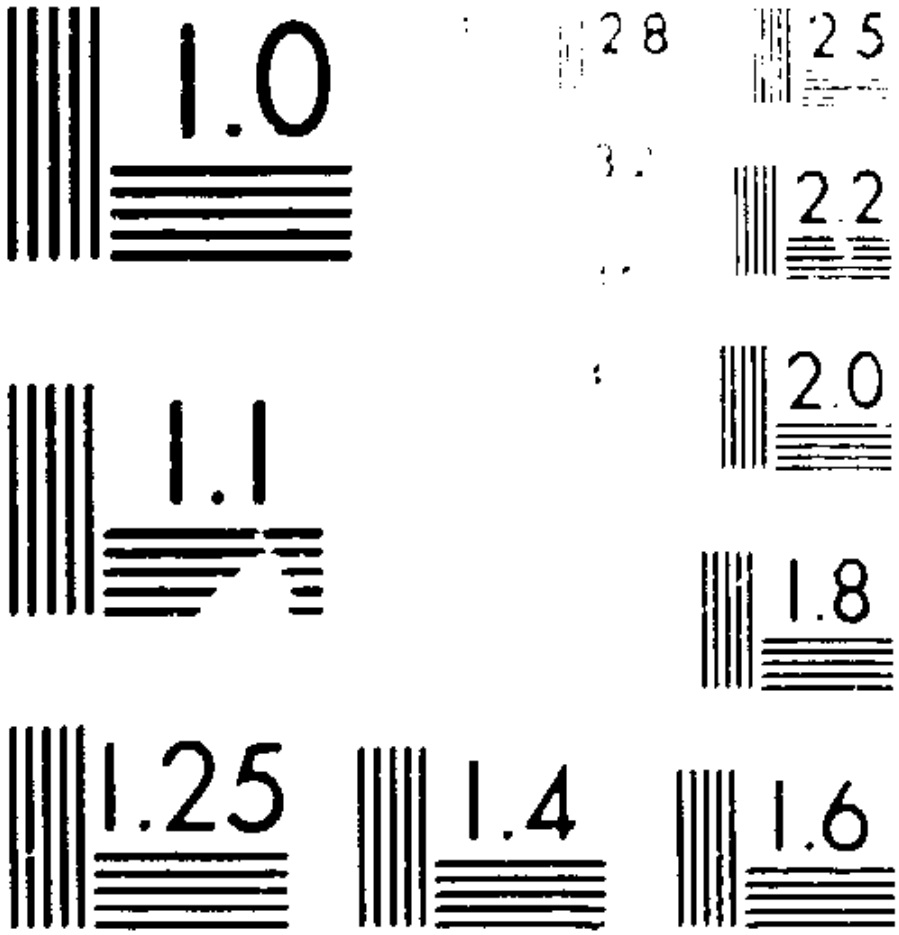
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

REPORT ON THE PROPOSED AFRICAN REGIONAL CENTRE

Report of a preparatory mission*.

Prepared for discussion at the Expert Group Meeting in
Addis Ababa, Ethiopia, 14-18 September 1981

by ITET Consultants, Limited, Nairobi, Kenya
and
TAMS, New York, U.S.A.
and based on the finding and contributions of the ECA, UNIDO team

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A C K N O W L E D G E M E N T

The members of the joint UNIDO/ECA team, whose mission concerned the establishment of an African Regional Centre for Consultancy and Industrial Management Services, wish to thank the United Nations (UNIDO, ECA, UNDP, etc), the Organisation for African Unity, the Governments of the various countries that were visited, public and private organisations, and all the individuals whom we met and communicated with and who freely offered their ideas, comments and opinions.

Without the full cooperation of these people our assignment would have been extremely difficult, if not impossible. The verbal and written interchange of data has made this report possible.

In particular we would like to thank Mr. G. Kimani, Director ECA/UNIDO Joint Industry Division, Addis Ababa, and Mr. Washington Okumu, Office of the Executive Director, UNIDO, Vienna, for their whole-hearted support for our mission. We also extend our sincere thanks to the secretaries of ITET Consultants Ltd for typing this report.

C O N T E N T

EXECUTIVE SUMMARY

The Joint ECA/UNIDO team was charged with the mission responsibility to undertake preliminary activities leading to the establishment of African Regional Centre for Consultancy and Industrial Management Services (CIMS).

The proposal for the establishment of the African Regional Centre for Consultancy and Industrial Management Services (ARCCIMS) was given high priority by the Second Conference of African Ministers of Industry held at Cairo in 1973 and by the third ECA Conference of Ministers held at Nairobi in 1975. The fifth Conference of African Ministers of Industry re-affirming the importance and priority of the project, urged ECA in collaboration with OAU and UNIDO to seek ways and means of implementing the project. This report embodies the findings of the ECA/UNIDO mission to various African countries and gives various details regarding the establishment and activities of the Centre. The conclusions and recommendations of the various aspects of the Centre are contained in the respective chapters.

Over the last two decades foreign consultancy organizations have seen Africa as a virgin ground for Consultancy Services. The implementation of the Lagos Plan of Action entails massive investment programmes in the priority sector and it is felt that the lack of indigenous consultancy services may be one of the major constraint for achieving the desired objectives of industrial development in Africa.

The purpose of CIMS in general terms will be the development and promotion of professionalism and creadibility among local Africans. The establishment of a data base detailing names of professional organisations and individuals, skills, application experience, etc.; provide technical and training support as well as proprietary service to existing individuals and organizations; develop consortiums of local professionals to effectively compete with expatriate firms; prepare and/or disseminate professional data; act as a clearing house of

information; and lobby for legislation in support of local professionals. The effective utilization of CIMS will reduce the outflow of foreign exchange, promote internal and external national growth, attract investment, develop a sound and cohesive consultancy base, and help achieve the true potential of the African nations.

The Heads of States and Governments have declared 1980 to 1990 as the Industrial Development Decade for Africa. They have set as targets for African Industry to achieve a 2% share of world industrial output by the year 2000 with interim targets of 1% by 1985 and 1.4% by 1990 compared to the present share of approximately 0.85%.* To achieve this massive increase in industrial production, new industrial projects involving heavy investments have to be established and optimisation of the existing investments have to be undertaken in order to increase their productive capacity.

It is imperative that the economic development process should not be left to the vicissitudes of economies and global vagaries of historical exigencies but be brought about through a deliberate endeavour directed towards fulfilment of the socio-economic aspirations of African countries and improvement of living standards of their people. The process of industrial development has become so complex that co-ordinated planning, appropriate technological inputs and rationally designed effective strategies for implementation are sine qua non for realisation of the desired goals. Therefore, consultancy organisations have to provide the vital inputs to ensure appropriate solutions. The most optimum solutions differ widely from the ones evolved in developed countries. Sophisticated technologies incorporating high degrees of automation in plant design and involving highly sophisticated equipment and production technique intended for mass production are more suited to developed countries environments

*In my preliminary discussions with UNIDO, I understand that the target of 1% share in world industrial production has been achieved. If so, this has implications for remaining targets. - Patel

and do not necessarily provide optimal solutions for countries in Africa. Moreover in African countries industrialization cannot promote growth until and unless large multinational projects are established based on the resource endowments of various countries and of extended demands of more than one African country thus enabling establishment of more economically viable projects with easy outlets.

It is felt that each African country has developed some infrastructure for rendering consultancy services for the developmental projects but few of them have adequate capacities and capabilities within one organic structure to undertake a whole range of industrial consultancy activities from project identification upto the commissioning of plants. Even where the expertise exists with the local organisations, resort is made to engage foreign consultants. This is probably due to a lack of information thus involving heavy expenditure in foreign exchange and the local consultancy organizations having idle and underutilized manpower.

ECA/UNIDO feels it is imperative to strengthen the existing consultancy organisations and to increase their capacities and capabilities by a pooling of resources. The time is now opportune to create the Centre which will fill the gaps and provide a full package of services for development projects. The establishment of the Centre will be vital in facilitating access to and in the promotion and acceleration of the use of existing and potential technical expertise. Vast knowledge of industrial development has been amassed in recent years and Centre can promote multinational projects based on complementarity of resource endowments of the African countries. The proposed Centre will fill the gaps and would also utilize the services and local manpower available by acting as a co-ordinating agency and playing the role of a catalytic agent in promoting rational growth thus enabling forging ahead of a highly unified and structured Africa so that it can play its proper role in world affairs and productivity.

In the light of the existing scenario of industrial consultancy and management services in Africa, the Centre will in fulfilment of its objectives, assume the supportive and catalytic role that is necessary to achieve full African potential. The accomplishment of this task will involve the organisation of a user-oriented system encompassing multiple exchanges of technical expertise and technological services. It will build itself into a self-supporting organisation. In order to accomplish this three distinct phases of development have been envisaged. During the first phase (first and second year of operation) the Centre will primarily have its data base and initiate its research, consultation, publication and consultancy activities. It would take an inventory of all the organizations and individuals in Africa capable of rendering industrial consultancy services, their major activities, sectoral coverage and professional strengths, etc. It would conduct country studies aimed at identifying complementary action which could be initiated for undertaking national and multinational projects by forming consortia of consultancy orgainisations. In addition consultation meetings would be arranged on contracting, know-how and equipment supply including formats, negotiation methods, and the like.

Having developed its data base and initiated its research, consultation, publication, information and consultancy activities, the Centre will enter into a dynamic promotional programme of its services including training coordination during its second phase (third and fourth year) of development. This would include updating of project profiles; preparation of model agreements and terms of reference; arranging complete packages of consultancy services by adopting a consortia approach for large national and multinational projects; arranging seminars, workshops and training programmes, etc. The Centre is envisaged to become fully operative during its third phase of development (5th year) and could render advisory services to individual governments on optimisation possibilities in industrial planning process in addition to strengthening the activities of first and second phase.

In view of the facilities offered by Nigeria and in accordance with the decision of the ECA conference of Ministers held at Free Town from 6 to 10 April 1981, the Regional Centre would be housed in the premises of ARCEDEM in Ibadan, Nigeria. Egypt, Kenya, Senegal and Zaire are seen as suitable locations for four subregional centres. The role for becoming the subregional focal points of the regional centre will be assigned to existing national or subregional organisations within the respective countries in consultation with the ministers of industry of the member countries within the subregion. They will carry out specific survey co-ordination or project assignments on the basis of subcontracts. The regional centre shall also have close interlinkages with various other Centres in Africa such as Centre of Technology in Dakar, the Engineering and Manufacturing Design Centre in Ibadan, and the Higher Technical Training Centre in Nairobi. It would establish contacts with similare institutions in non-african developing countries and industrialised countries for exchange of ideas, information, training, research and consultancy services and shall also closely liaise with various international organisations like UNIDO and the Arab Industrial Development Organisation.

The Centre would be created as an independent entity under the supervision of a Governing Council composed of representatives from the member governments (Minister of Industry), industry and consultancy/management services, organisations. The Chairman of the Governing Council will be selected from among the Ministers during the regular meetings of Ministers of Industry and the Chairmanship and membership will be rotating. The Centre would be headed by a Director-General assisted by five Directors and a full professional supporting staff.

It is estimated that the total cost for the first three years would be US$.5 million and it is recommended that the finance should be made available to the Centre by the following sources:

(i) Annual contribution from African countries;

(ii) Grants from other developing countries;

(iii) Grants from developed countries;

(iv) Grants from African financial institutions;

(v) Technical assistance from UNDP;

(vi) Service charges and fees when the Centre is fully operational;

(vii) Contribution from other United Nations Agencies.

The Joint ECA/UNIDO consulting group recommends that each participating country of the OAU and ECA member States contribute in the form of annual retainer of ¼ of 1% of the annual development budget. This retainer will be applied against professional services rendered by Centre to the specific country.

In order to ensure that the Centre becomes operational in the shortest possible time it is very essential that the various activities relating to initial framework, legal framework and staffing are completed within the stipulated time framework. The experts meeting to consider the Report of the mission is scheduled for September 1981 and the meeting of Ministers of Industry is expected to be held in November 1981. The key event relates to the signing of the Agreement by the various states which is envisaged to be completed by January 1982. A project manager responsible for preparation of the Ministers of Industry meeting in November must be appointed to ensure full briefing of the Ministers, preparing and circulating all the necessary documents as prepared by the Joint ECA/UNIDO mission and discussed by the Expert Group Meeting.

The success of the Centre will depend on the proper monitoring of its operations by the Governing Council. Three major aspects which would require the attention of the Governing Council are:

(a) Effective utilization of personnel;
(b) Conformation with approved plans; and
(c) Finances.

Quarterly Reports shall be prepared by the Centre for Circulation to the Governing Council members. An annual progress report shall be prepared by the Centre for the consideration of the Governing Council and the financing agenices.

The establishment of the African Regional Centre for Consultancy and Industrial Management Services will meet the objectives of the African Ministers of Industry and the Lagos Plan of Action.

The adoption of the conclusions and recommendations contained in this report along with the full and overt support by the participating African nations will assure not only the viability and effectiveness of the Centre but will be a positive step towards the industrial development of Africa.

I. INTRODUCTION

1.1 Background

In the framework of the implementation of the Lima Declaration and Plan of Action on Industrial Development and Cooperation, the proposal for the establishment of the African Regional Centre for Consultancy and Industrial Management Services was given high priority at the various Conferences of the African Ministers of Industry. In fact, from the beginning, high priority to this project was accorded by the Second Conference of the African Ministers of Industry held at Cairo in 1973 and by the third ECA Conference of Ministers held at Nairobi in February 1975.

The idea of the regional centre for Consultancy and Industrial Management Services is one of the four regional institutions* related to industrial development accorded high priority by the fourth Conference of the African Ministers of Industry resolution 2(iv) as vital regional instrument for promoting self-reliance and self-sustained growth in industrialization and promoting technical cooperation among African countries. The fifth Conference of African Ministers of Industry resolution 2(v), re-affirming the importance and priority of the project that urged ECA in collaboration with OAU and UNIDO to seek ways and means of implementing the project.

Basically, the concept is one of those based on the propositions of the New International Economic Order as well as recommendations of the Regional Symposium on Industrial Policies and Strategies adopted by the fifth Conference of African Ministers of Industry, spelled out

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*The others are: African Regional Centre for Engineering Design and Manufacturing, African Regional Centre for Technology and African Industrial Development Fund.

in terms of the socio-economic characteristics and problems of the African region. The project reflects the need for rapid, simultaneous and inter-linked advance on several strategic points in industrial development. It also takes into account the present low level of self-reliance and self-sustaining growth in this field which are among the causes of Africa's very small share (less than 1 per cent), in world's total industrial output over the last decade or more.

The implementation of the Lagos Plan of Action entails massive investment programme in all economic sectors of priority within the African region (food and agriculture, habitat, transport and communications, industry, energy, trade and finance) all of which require inputs from consultants. The lack of adequate industrial information on inputs and product markets, various aspects of project preparation, marketing information, the acquisition and appropriate uses of different types of technology, effective mobilization of professional local manpower, manpower training and skills development, negotiations for equipment, independent assessment of project proposals, and credit have been indentified as being the major obstacles to development in African countries.

In this respect, over the last two decades, foreign consultancy organisations have seen Africa as a virgin ground for consultancy services. They provide preparatory studies, design work, procurement services, supervision and project management services. As far as the management services are concerned, the organisations in the same line of business as the local one to be managed are the main source of management services. Invariably manufacturing corporations are providing managerial expertise in a package deal to their foreign purchasers. Lack of these vital services in Africa does not merely retard investment at all economic levels, but also results in the high cost (about 20 to 25 percent of project cost) of such

services obtainable outside the region.

In Africa major clients for foreign consultancy organisations are usually national governments and associated parastatal bodies and the projects are usually funded either by bilateral and/or by international agencies. In effect such clients have provided all the safeguards for the foreign consultancy organizations in Africa to flourish in one form or other. There are many cases where consultants have been engaged to evolve solutions which have no relevance to the prevailing conditions, subsequently resulting in exhorbitant losses and non-achievement of desired objectives.

In view of the above, ECA/UNIDO mounted an investigating field mission comprising a team of six members with a view to identifying and evaluating the needs of African countries to develop their own services for Consultancy and Industrial Management.

According to the relevant information collected, each African country has some facilities for the preparation of projects up to a certain stage; but few of them have adequate capability within one organic structure to undertake whole range of consultancy activities from project identification up to the commissioning of plants. Indeed, lack of such capabilities is one of the major constraints and causes for the worsening of industrial development in most African countries visited.

In recognition of the needs of African countries, the establishment of the African Consultancy and Industrial Management Services will help various African countries to carry out their development programmes in a rational manner. Although many of the African countries have developed such services which are in their infancy, the proposed centre will fill the gaps and would also utilise the services as well as manpower available by acting as a co-ordinating agency and playing the role of a catalytic agent in promoting rational growth to the mutual benefit of the African countries.

This report incorporates the mission findings for the countries visited and projects from this the general situation in Africa. It then gives various details regarding the establishment and activities of the Centre, and the conclusions and recommendations. Other necessary details are given in appendices.

1.2 Composition of the mission

The mission team consisted of the following:

i. Chief A. Adejumo: Consulting Engineer from Nigeria and ECA-Team Leader;
Secretary, Association of Consulting Engineers of Nigeria.

ii. Mr. S. K. Sahni: Consulting Engineer from India and ECA Consultant;
General Manager Projects and Engineering, Punjab State Co-operative Supply and Marketing Federation Ltd., Chandigarh, India.

iii. Mr. K.K. Peki: ECA Industrial Economist;
Joint ECA/UNIDO Industry Division, Addis Ababa.

iv. Prof. R.P. Patel: Consulting Engineer from a and UNIDO Team Leader;
Managing Director, ITET Consultants Ltd., P.O. Box 52355, NAIROBI, Kenya.

v. Mr. T. Erickson: Consulting Engineer from USA and UNIDO Consultant;
Tippetts-Abbett-McCarthy-Stratton Engineers and Architects (TAMS)
655, Third Avenue, New York,
N.Y. 10017, USA.

vi. Mr. K. Moll: UNIDO Senior Industrial Development Officer, UNIDO, Vienna, Austria.

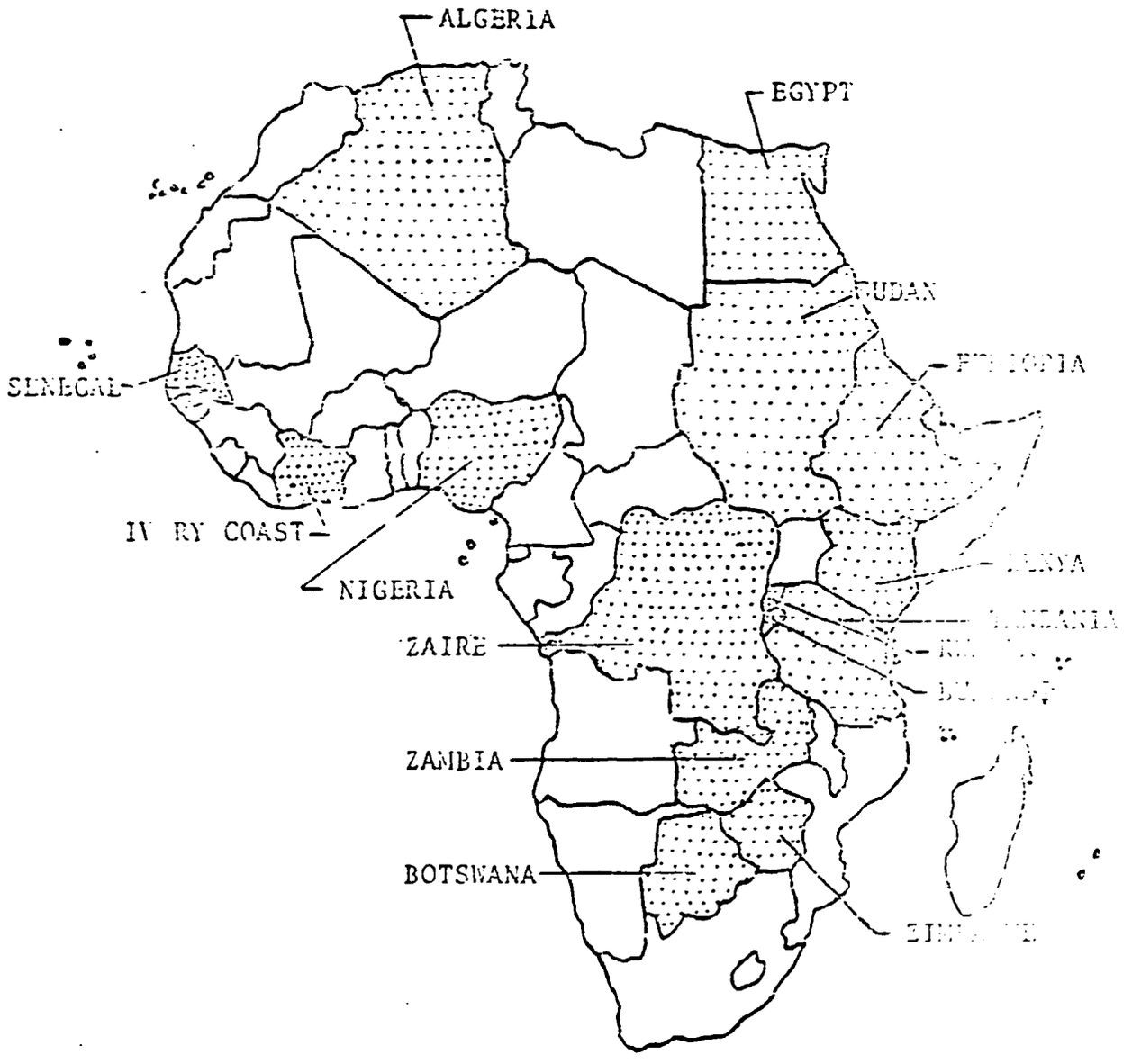
1.3 Countries visited

In accordance with the terms of reference* the mission commenced its work on the 10th of May 1981, and the following countries were visited on the dates shown: (See map on next page).

10.05.81 to 12.05.81	Kenya
14.05.81 to 16.05.81	Zambia
16.05.81 to 19.05.81	Botswana
20.05.81 to 23.05.81	Burundi, Rwanda
27.05.81 to 30.05.81	Senegal
30.05.81 to 03.06.81	Ivory Coast
03.06.81 to 10.06.81	Nigeria
11.06.81 to 13.06.81	Zaire
15.06.81 to 17.06.81	Sudan
21.06.81 to 27.06.81	Algeria
27.06.81 to 03.07.81	Egypt
27.06.81 to 30.06.81	Zimbabwe
30.06.81 to 01.07.81	Zambia
01.07.81 to 05.07.81	Tanzania
03.07.81 to 17.07.81	Ethiopia

The above countries represent a cross-section of African countries, both industrialized and non-industrialized.

*See Appendix 1



COUNTRIES VISITED BY UNIDO/ECA MISSION

The boundaries shown on maps do not imply official endorsement or acceptance by the United Nations.

II. COUNTRY REPORTS

2.1 KENYA

The following Ministries were visited in Kenya and discussions were held with the officals;

(i) Ministry of External Affairs;
(ii) Ministry of Planning;
(iii) Ministry of Industry;
(iv) Ministry of Justice;
(v) Ministry of Transport and Communications;
(vi) Ministry of Finance.

Ministry of Industry

Ministry of Industry is envisaged to have a full fledged Industrial Promotion Department. Previously, this Department was known as Industrial Survey and Promotion Centre (ISPC). This Department has a fleet of 45 Professionals in the field of various branches of engineering and technology in addition to UNDP personnel. The functions that were hitherto undertaken by them are refined and redefined and additional functions are added. ISPC had carried out the task relating to preparation of project profiles, pre-feasibility studies, feasibility studies, evaluation studies and other related industrial development studies.

This means that the Industrial Promotion Department has the capacities and capabilities to undertake the feasibility studies in certain specified sectors for the programmes envisaged by the Kenyan Government in addition to carrying out the project apprisal and choice of appropriate technology suited to local requirements.

Therefore, the proposed Centre should have close inter-linkages with the Ministry of Industry and a two-way traffic should be established between the proposed Centre and Ministry of Industry, Kenya, to make most optimal use of the talent within the Ministry.

When the Centre becomes operative, for example, it can undertake studies relating to the proposed industrial development programmes with the participation of professionals from Ministry of Industry on agreed terms and conditions, thus obviating the necessity of resorting to help from outside African countries.

Foreign Aid Department of the Treasury:

Meeting was held with Mr. Agoya, Under Secretary, Treasury, Nairobi in order to get an overall picture regarding the implementation of industrial and infrastructure projects for the economic development of Kenya. Ministry of Planning is responsible for formulation of various plans and also undertakes the initial planning aspects of all projects. Once the plans have been formulated and the initial identification of the projects has been completed along with approximate investments, the Treasury is charged with the responsibility of negotiating with the various donor countries for arrangement of funds for the successful implementation of the projects. At present, Britain and West Germany, are the major sources for funds in addition to World Bank, EEC, Arab bank, African Development Bank, UNDP, UNIDO, UNICEF, Norway, Finland, France, Denmark, Japan, USA, Australia, Canada, Saudi Arabia, Kuwait, Abu Dhabi, India, Italy, Austria, Commonwealth Secretariat, USSR, Eastern European Countries, etc. The aid and loans are for development projects and also for technical assistance. The various conditions for funds differ for the various sources. Britain normally wants Kenya to invest around 40% to 45% for the projects.

In case of British aids, pre-feasibility studies and Feasibility Studies are carried out either by British Consultants or by the local consultancy organisations or jointly with the approval of the British Government. Similarly, detailed engineering and project implementation may be carried out either by local consultants or British Consultants or jointly taking into consideration the various

aspects involved for the successful implementation of the projects.

However, in case of West Germany projects, West Germa normally insists on the pre-feasibility study and feasibility study to be undertaken by West German Consultants. Once the feasibility study has been carried out the detailed engineering and implementation of the projects may be carried out either by West Germany or local consultancy organisations or jointly. W. Germany normally requires participation of Kenyan Government to the tune of 15% to 20% in the investment.

Kenyan Government is very much alive to the importance of on-the-job training and normally identifies the counter-part personnel for understudy in order to ensure smooth running of the plants after the donor countries have withdrawn their personnel.

Mr. Agoya expressed surprise that although the proposed Centre for CIMS had been discussed at various Ministers' Meetings for over 5 years, yet he was surprised that certain English businessmen purporting to represent Overseas Development Agency (ODA) from London, had previously visited him to discuss a similar project. In any event, he did not take them seriously as they are used to this type of European speculators. He however expressed hope that the centre could be established in Nairobi; which shows that he was not aware of the decision already taken in Freetown.

There is an Association in Kenya by the name "The Association of Consulting Engineers of Kenya" with about 28 members, all of which are expatriates except one. Investigations revealed that this Association is a misnomer , as it does not represent the Indigenous Consulting Engineers Firms in Kenya and the credibility of such an Association whose membership is questionable and so it should not be allowed to exist. Efforts are however being made by the Indigenous Consulting Firms to put things right.

Ministry of Justice

Meeting was held with Mr. Emukule of the Attorney-General's Chambers. He explained that there are existing in Kenya International Institutions such as:

(a) International Technical Institute for Higher Education;
(b) Centre for Surveying and Mapping Services;
(c) International Centre for Insect Physiology and Ecology.

Kenya has a law under the Foreign Investment Protection Act of 1964 Cap. 518 to protect Foreign Investment. The Country has no law regulating percentage share-holding in Consulting Engineering Partnerships and also on the composition of the Partnership. Hence Overseas Consulting Firms are allowed to register as off-shore companies of their European Parent Companies so long they fulfill the Kenya Registration laws.

Ministry of Transport and Communications

A meeting was held with Mr. S. N. Ntongho, the Chief Development Engineer of the Ministry of Transport and Communications. He promised to send a write-up and answers to the questionnaire to ECA, Addis Ababa.

2.2 ZAMBIA

The following organisations were visited in Zambia and discussion were held with them:

(a) National Commission for Development and Planning;
(b) Industrial Development Corporation;
(c) Management Development and Advisory Service;
(d) National Council for Scientific Research;
(e) Firm of Consulting Engineer - MINETECH Service Group;
(f) University of Zambia.

National Commission for Development and Planning

Dr. L. S. Chivuno, the Director General of the National Commission for Development and Planning (NCDP) and the following officials held discussions with members of the Mission:

Mr. J. M. Mbonga, Director of Economic and Technical Corporation.

Mr. A. Habbanti, Director of Sectorial Planning

Mr. E. E. W. Mbawe, Assistant Director (ETC)

They expressed their desire of locating the Centre in Zambia. Millions of dollars have been spent in the country since independence, over the last 16 years, for consulting services provided from outside the country. The government of the country is however taking necessary measures to reduce the huge sum of money being spent annually on consultancy. Local Consulting Firms and Management Organisations have been set up. There is a National Management Development and Advisory Service which has been set up and runs with the assistance of UNDP and ILO. The Organisation is very strong and independent. Instructions were given to all Public Organisations to make use of the Services of these organisations before considering to use outside services.

Zambia is still very weak in Engineering capacity and as such bulk of Engineering Consultants in the country are still expatriate firms.

In any event indigenous engineers are being encouraged to pool their resources together and form virile and efficient firms.

They are not worried about the location of the Centre as long as it is in Africa within the reach of all countries capable of providing required services.

Industrial Development Corporation (INDECO): Founded in 1959.

Mr. A. Mbikustia-Leswanika, the Director of Projects at INDECO with the following officals received the Mission:

(a) Mr. Luke C. Mbewe, Manager (Development Services, Projects Divison);

(b) Mr. A. Muchanga, Economist (ETC).

INDECO is the main Agency acting as holding company for the State in all companies. In most of the companies it is the majority share holder and in some others the minority. It provides consulting services to the companies and its project division has the following departments:

(i) Industrial Development;
(ii) Agro-Industrial Development;
(iii) Civil Engineering.

It also has a department known as Industrial Engineering and Management Services department. It does not provide any outside consultancy services at the present moment because it is ill-equiped to do so.

Training programmes had been set up with the help of overseas partners in the various industries for the indigenous staff.

Management Development and Advisory Service (MDAS)

Meeting was held with Professor T. Abdel-Malek, the UN/ILO Chief Technical Advisor and Project Manager. The Management Development and Advisory Service (MDAS) was established in 1971 as a joint project of the Zambian Government, the United Nations Development Programme (UNDP) and the International Labour Organisation (ILO). Its purpose is to help develop effective Zambian managers and institutions by providing management consulting, training and consulting services, by advising Government on management development policies, and by assisting other institutions engaged in the field of management development.

The activities of this organisation fall into five major groups:

(a) In-company management consultancy services designed to improve efficiency by working with managers to solve specific problems, introduce new systems, and assess organizational strengths and weaknesses;

(b) Conducting training programmes for top and middle management levels;

(c) Assisting companies in preparing their own management development and training plans;

(d) Assisting in the development of other management training institutions in Zambia, by contributing on a joint-venture basis to their programme design, training methods and training staff requirements;

(e) Helping in the development of small business enterprise.

It has 21 members of staff, 6 expatriates and 15 Zambians. It has been a part of the Cabinet Office up till now but an Act of Zambian Parliament has now been passed to change it into a Statutory Board. Fees are charged for consultancy services offered to companies

on a subsidized rate and there is competition from other private similar bodies. They have planned training programmes until end of February 1982. The main problems of this organisation is the bottle-neck of professional staff due to process of recruitment as part of the civil service , but this will improve as soon as it starts to function as a statutory board.

A joint programme committee has been formed with other management training services in Zambia including the Management School of the University of KITWE, and also the National Institute of Public Administration.

University of Zambia - Lusaka.

Discussions were held with Professor J. Whitaker, Dean of Engineering and Professor R. K. Appiah of the School of Engineering, in order to have their views regarding the establishment of the Centre and also assess the facilities of technical education. They were of the view that the establishment of the Centre would go a long way in the industrial development efforts of the Government of Zambia. They further added the Centre should also have facilities of organising workshops and various aspects of project management in order to promote cross - fertilization of the latest techniques being adopted. In addition, the Centre should have a Roster of Consultants so that the knowledge available with the professionals engaged in teaching institutes can be usefully deployed on short term basis thus making most optimal use of the talents available to African countries.

School of Engineering in parts education in the field of electrical, mechanical and civil engineering whereas the School of Mining has the capability of producing Mining Engineers.

Minetech Services Group

Discussions were held with MR. E. A. Sahita, Executive Chairman of Minetech Services Group, a holding company for Pringle (Zambia) Limited, Minetech Limited, Hydrotech Limited and Minetech Services Limited.

The Group comprises of the following four companies and they had collaborations with various foreign firms in the beginning. At present there are no such agreements but they resort to selective tie-up with foreign firms to supplement their capacities and capabilities for specific projects.:

(a) Pringle (Zambia) Limited - Building and industrial consultants to provide each client with building facilities and services modern in design and effecient in operation and maintenance at the lowest cost commensurate with acceptable quality. Pringle Zambia offers integrated services to the owner and contractor and works very closely with the client through every phase of the project from inception to commissioning. Major areas covered by them include building services, engineering, architecture, town planning and construction management.

(b) Minetech Limited - Provides services in the field of mining, agro-industries, chemicals, forestry products and other manufacturing industries.

(c) Hydrotech Limited - Provides engineering and other consultancy services in the fields of energy including hydro-power, power transmission and distribution, water resources engineering, effluent disposal and environmental engineering, mechanical and bulk handling, railway and automobile engineering and associated service facilities.

(d) Minetech Services Limited - Registered as a holding company for all the above mentioned companies, offering coordination of multi-disciplinary

activities including consultancy services for equipment, finance and management.

Their turnover in terms of consultancy fees is around 300,000K. Their charges for individual expert services range from 15000-20000K and they charge around 25000K per month for expatriate professionals. The normal charges for rendering turn-key consultancy for a project varies from 11-12% depending upon the complexity of the project.

He was very enthusiastic about the establishment of Centre and wanted the Centre to pay special attention to the following aspects;

- Narrow down the Codes of Practices followed for various works
- Rationalization of consultancy fees
- Cross-fertilization of engineering experience.

Engineering Institution of Zambia:

There are about 700 Engineers of all grades on the register of the Engineering Institution of Zambia, about 400 of these are fully qualified professionally, but the local Association of Consulting Engineers has only 13 members, 12 of which are expatriates whose head offices are abroad, mostly in the United Kingdom. 75% of the professional engineers are employed by the Mining Companies and 25% are employed with the Government or private business. The Institution is currently working with the Parliament to establish a National Registeration Board for Professional Engineers. This may fructify in two years' time.

Professional Engineers in Zambia would like to see:

(i) A standardized Building Code for - Structure, Road, Bridges, etc.

(ii) Standardised contracts for professional services;

(iii) A guidelines for professional fees for national as well as Overseas Consultancy Services.

2.3 BOTSWANA

The following Ministers and Parastatals were visited in Botswana and discussions held with the officials:

(a) Ministry of Works and Communications;
(b) Ministry of Commerce and Industry;
(c) Technology Centre;
(d) Ministry of Finance and Planning;
(e) Botswana Development Corporation;
(f) Botswana Enterprise Development Unit;
(g) Tender Board;
(h) The Polytechnic.

Ministry of Commerce and Industry

A meeting was held with Messrs. K. Eder, Senior Industrial Officer and Mr. R. P. Boikawyo, Industrial Officer, both officials of the Ministry of Commerce and Industry.

Proposals are prepared by the Ministry and then passed to the Ministry of Finance for Financial Donors to implement them. The Ministry has a technical department which carries out feasibility studies as it has feasibility study funds to prepare studies. The fund is provided both by Foreign Aid and from Botswana Government Sources. UNIDO also helps the Ministry to prepare feasibility studies.

There exists a pool of experts fund and early in 1979 this fund was used for the Construction Industry. Example of the various funds are as follows:-

Feasibility fund DM.3½ million)
Pool of Experts Fund DM.1.3 million) West Germany Aid
Investment Promotion Fund DM.1.0 million)

There is also implementation promotion fund. The

Government encourages the promotion of indigenous Private Enterprises through the Botswana Enterprises Development Unit and promoters are expected to find 25% of the capital. Liaison officers are supplied by the Ministry for the various enterprises thus created. Local labour is available in abundance, though largely unskilled. Special allowance for training is paid to private enterprise companies. No Botswana national is engaged in both engineering and management consultancy. The existing firms are mostly off-shore companies of British Consulting firms.

Botswana Enterprises Development Unit

Meeting was held with Mr. J.R. Monametsi and he explained that his Unit renders assistance to small-scale industries. The Programme is financed by CEDA (Sweden). The Project Development Section prepares feasibility studies for the various industries.

The Unit has been instrumental towards the end of 1975 in establishing a number of Industrial Estates. They have also helped the garment, metalworks, woodworking and textile industries. Over 200 local entrepreneurs have been assisted at a cost of over PULA 185,000. It started its projects in the urban areas, but it has now shifted its emphasis to the rural areas. However, lack of infrastructure is a constraint in this respect.

Technology Centre

Meeting was held with Messrs. Nedford and Bart Aarsse at the Centre. The Centre had received $700,000 from the EDF LOME I for 3 years. They have a renewable energy programme of about $4.7 million. The USAID has granted $3.6 of this amount for 3 years and the Botswana Government has provided $1.1. In 1982 they will be getting about Pula 1 million from EDF LOME II.

The Centre has professionals on its staff, but uses local as well as outside consultants. They liaise with the Centre for Industrial Development in Brussels (EEC).

Botswana Development Corporation Unit

Meeting was held with Mr. M. O. Mojalone of the Botswana Development Corporation. The Ordinary shares of the Corporation are held by the Botswana Government. There are non-voting cumulative preference shares held by external shareholders. It is the commercial and industrial arm of government. It made use of external consultants on project to project basis. The Corporation does not carry out any consultancy work, but it has recently set up a Projects Division. They will be handling projects in the region of Pula 8 million for Agriculture which will be financed both from within and outside and they are now negotiating with the CDC in this respect. Feasibility studies for projects are normally carried out in Europe e.g. Britain, Western Germany.

Ministry of Finance and Planning

Meeting was held with Mr. E. Maphanyane. The purpose of the proposed Centre was explained to him and the questionnaire was given to him. He would send the answers to ECA, Addis Ababa.

Ministry of Works and Communications

Meeting was held with Mr. D. Gasper and Mr. A. Bosmide. The Ministry carries out some consultancy work for BEDU and also the Ministry of Civil Aviation. They carry out supervision of their own projects but it is their aim to increase the amount of consultancy work that can be carried out by the Ministry. Presently big consultancy work is carried out by outside consultants. The award of consultancy services is done by the Central Tenders Board.

The Ministry is responsible for Roads, Architecture and Building, Civil Aviation, Railways, Metallurgy and Roads Transport. Fees paid for consultancy in the past for example are:

Pula 1.5 million for buildings
Pula 2.0 million for Roads
Pula 2.0 million for Civil Aviation
Pula 0.5 million for railways

Botswana Tenders Board

Meeting was held with Mr. Wood of the Tenders Board. The Board keeps internal register of Consultants and it adheres strictly to this register. For major projects, the local as well as foreign consultants are required to fill in the pre-qualifications bid before proceeding further.

The Botswana Airport is expected to cost about Pula 40 million and it will be funded by KFW (German), Kuwait Funds and possibly by ADB. The consultants are Messers. Alexander Gibbs & Partners of U.K. The scale of fees are similar to the South African Conditions of Engagements and Fees. Recently the Government has commissioned a Firm of Consulting Engineers from the UK to prepare a draft conditions of Engagement and Fees for Engineering Consultancy. They are now studying the report.

The Polytechnic

Meeting was held with Mr. F.R.A. Munis, the principal of the Polytechnic. Courses are held in Mechanical, Automobile, Civil and Electrical Engineering upto the Technician Certificate or City and Guilds Certificate. There is a 5 year plan to award Higher National Certificate in 1985.

The present output is over 300 students of all sorts, 217 craft courses and 138 technician courses. Entrance requirements for the courses are aptitude tests after attainment of Cambridge School Certificates. There are plans to set up teachers technical training unit to train teachers for secondary schools and also courses for Site Management in Civil Engineering.

2.4 RWANDA

The following Ministry and organisation were visited and discussions were held with the officials:

(a) Rural National Bureau of Study of Projects (Bureau National des Etudes);

(b) Ministry of Industry.

KIGALI

Meeting was held with Mr. Thadole Uzabakiho of the Ministry of Industry. Mr. Nduhungirene and the Director of the National Bureau of Projects Study, in order to assess the requirements regarding Consulting Engineering and Management Services for Rwanda in their endeavour to carry out development projects. The representative explained that they carry out studies for potential projects with UNDP assistance.

They also have a National Bureau of Studies which is instrumental in carrying out studies related to the potential projects and is a focal agency established for the industrial development. The Bureau has been established very recently and is very young. Regarding foreign investment, the Country has a definite policy and they do not accept full financing aid for establishment of industrial projects. A National Bank exists for giving loans for the projects to be established in Rwanda.

The National Bureau of Projects Studies has a core staff consisting of three economists, one management consultant, one statistician, two civil engineers, one geologist, two agronomists, one chemist and one sociologist, in addition to support staff. The Bureau has also plans to increase their professional staff strength in order to meet the future requirements. It was also gathered that they engage the services of foreign experts and consultants to advise them regarding specific projects to whom they pay fees of average US$10,000 per month plus per diem plus house. The officials were very enthusiastic regarding the establishment of the Centre.

2.5 BURUNDI

Meetings were held with the following people:

(a) Mr. Nzeyimana Andre, Director General
Ministere des T.P.E.L.;

(b) Mr. B. Kidwingina, Charge de Mission
of the President's office.

Discussions were held with Mr. Nzeyimana Andre, Director General, Ministere des T.P.E.L. They are responsible for supervising building constructions works. They have a core staff of around 15 engineers and architects which also include foreigners who are normally working under bilateral aid agreements. In additon, they have around 30 technicians on their roll in addtion to other core staff . It was also gathered that there are some offices opened by foreign consultancy firms who undertake consulting engineering and management services for the projects in Burundi. Generally the Consultants charge fees of around 7% to 9% for various projects which includes provision of designs and drawings in addition to services relating to successful commissioning of projects. At present there are no facilities for technical education However, they are contemplating of establishing a Polytechnic to cater for the requirements of technical manpower required for establishment of development projects. Mr. Nzeyimana emphasized the need of close linkages of the Centre with their office in order to make available to other African countries similar studies that had been carried out in Burundi at reasonable costs. It was explained that the Centre shall have close linkages with the representative Government bodies and the exact linkages shall be worked out at the appropriate time. Mr. Nzeyimana also desired that the Centre should work towards development of standards for the African countries and should have provision of a Data Bank in the Centre to make most optimum use of the studies and detailed engineering aspects of various projects, so that the cost for carrying out projects is suitably reduced.

Discussions were also held with Mr. Kiduringira, Chargé de Mission of the President's Office, who explained that they have recently established a Bureau for promotion of new projects. The idea of the centre was explained to him and he promised to get in touch with the Bureau and ask them to send the relevant information to Addis Ababa.

2.6 SENEGAL

Meetings were held with the following organisations and people:

(a) Director of Industries, Ministry of Development;

(b) SONED;

(c) Chamber of Commerce

It was not possible to hold a meeting with the officials of the Centre for Technology because the Director was not there and the Centre is not yet established.

Meeting was held with M. Sidy Lamine Ba, Director of Industries in Ministry of Development. The objectives of the centre were explained in depth. The Director further solicited information on the rationale for establishment of such a Centre when at the national level organisations for rendering consultancy services exist and the other Centres for Technology, e.g. Ibadan Nigeria, are already either functioning or in the process of establishment. The Mission explained that there is a long felt need for creation of such a Centre to render CIMS from under one roof and in turn the Centre shall have close linkages with other Centres, Consultancy organisations at national level, Development Bank, Universities, Research Centres and other related Institutes. The Centre shall co-ordinate the various functions and offer a complete package of services for the development projects in various African Countries and Multi-national Projects within Africa. The Centre shall operate as a commercial venture once it has become operative fully, but shall have to be financed in a suitable manner by the member countries in its formative years. The Director expressed his satisfaction at the proposed venture and looked forward to its becoming operative.

Societe Nouvelle des Etudes de Developpement en Afrique (SONED)

Discussions were held with Mr. Oumar Souleymane Thiew, Director General to solicit his views on the proposed Centre. The rationale and objectives for the establishment of the Centre were explained in depth. The director-general was of the view-point that the centre should take appropriate measures to ensure smooth flow of business, otherwise it would run the risk of closing down in its infancy. He further explained that the centre should also endeavour to procure business from international agencies in view of its increased capacities and capabilities.

Chamber of Commerce

The aims and objectives of the proposed Centre for rendering Consulting Engineering and Management Services for the industrial and infrastructure projects in Africa with special emphasis on large national and multi-national projects were explained to the President of Chamber of Commerce. The President was very enthusiastic about the establishment and growth of such a Centre as it would promote implementation of projects based on resource endowments, complementarities and larger markets of Africa as a whole which were hitherto not being given a concrete shape.

The President explained that the Centre would also help the growth of local consultancy capabilities as at present they have difficulties in procuring business due to their lack of capacities and capabilities as viewed by the prospective entrepreneurs. The Centre would have backing of the expertise available in Africa and would thus be able to establish its credibility from its very inception and subsequent growth. Thus the consultants from developed countries would not be able to over-shadow the Centre which they are in a position to do with the local consulting firms at present.

The President explained the crucial role being played by his organisation for the industrial development of Senegal. The Government recognizes the importance of this organisation and contributes 60% of its expenditure whereas the rest of the 40% is met from their own resources and earnings. The Chamber levies a tax on all the ships which come to Dakar. In addition, it imparts training in secretarial practices on payments and also trains customs staff on various facets and it imparts the training by charging suitable organisations or individuals. In addition, the Chamber issues certain publications for which the subscribers pay suitable annual subscription.

The inter-linkages of the Chamber with area level institutions and institutes at the continent level were explained by the President. The area level institutions come under the gambit of the Chamber in Dakar which co-ordinates all the functions. The Chamber in Dakar acts as a platform and spokesman between the industrialists and Government. The Chamber is represented on the local agency for French Speaking African States. The local agency has a membership of 12 states, and this agency looks after the interest of member states.

In addition, all African states have a Federation of Chamber of Commerce and at present the Federation has its office in Lagos. The Federation looks after the interests of all the member states. The Federation acts as an agency for harmonizing the various functions expected of various Chambers for smooth industrial relations and activities.

The President further opined that the centre should have close inter-linkages with the above agencies in order to take advantage of the capacities and capabilities existing in them and thus the Centre can function in a smooth manner with the participation of various chambers of the Member States and the apex bodies at the level of Africa.

2.7 IVORY COAST

Meetings were held with the following organisations and people:

(a) Mr. Gerard R. Latortue, UNDP Advisor,

(b) Mr. N'cho, Secretary General, Office for the Promotion of Ivorian Enterprieses (OPIE)

(c) Ministry of Planning

(d) Mr. Yuma, Secretary of ADB

(e) Bureau de Developpement, Abidjan

(f) Mr. Diara, Economic Consultant

Meeting was held with UNIDO Adviser Mr. Gerard R. Latortue and Mr. N'cho, Secretary General, OPIE. OPIE is engaged in rendering services to the Ivorian Enterpreneurs interested in establishment of small-scale business in order to give a fillip to industrial development process. The organisation is staffed by around 60 local professionals in addition to 20 expatriate professionals. The organisation has the capacities and capabilities to cover the entire gambit of services right from the stage of project inception to successful commissioning through the stages of feasibility study, detailed engineering and construction supervision. They also render services relating to diagnostic studies for the running of enterprises including management, training of manpower and other allied services connected with the operation of plants. All the above mentioned services are rendered free of charge in order to boost the development of small-scale enterprises.

The objectives for establishment of the Centre for Consultancy and Industrial Management Services was explained in depth with the advantages which will accrue to the African countries. The Secretary-General was very enthusiastic about the establishment of such a Centre, and explained that at present they generally resort to equipment procurement for their projects from France because of their historical ties. The Centre can help them give information regarding alternative African and

other suitable suppliers for equipment procurement in order to arrive at the most optimal solution. He further desired that the Centre should have inter-linkages with various other Centres in Africa e.g. Technology Centre at Ibadan, Nigeria and also with other organisations.

Ministry of Planning, Abidjan

Meeting was held with Mr. Diage Oma, Director General of the Ministry to solicit his views on the proposed Centre for rendering Consulting Engineering and Management services for developmental projects in Africa. The Director-General explained that the Government asks for studies regarding evaluation of proposed projects and also to identify areas of development. They have different bureaus as follows with their specific activities:

Bureau BETPA - Technical Bureau for promotion of agricultural projects.

Bureau BCET - Bureau for technical surveys to cater to the needs of construction projects for the Ministry of Public Works

Bureau LBTP - Laboratory to cater to the needs of Ministry of Public Works and roads infrastructure projects, etc.

In addition, there are three types of Consultancy Firms operating for industrial projects:

(a) Completely manned by local professionals - they try to get jobs from private and government clients.

(b) Bureaus which have their agency offices in Ivory Coast but their head offices are in their own countries;

(c) Bureaus which do not have their offices in Ivory Coast. Normally they do not prefer such bureaus and the same are used in case the capacities do not exist with the first two kinds of bureaus.

The objectives of the proposed Centre were explained in depth by the Mission and it was mentioned that the proposed Centre would operate as an independent consultancy firm with no tie up with specific equipment manufacturers. The help of Consultancy Firms from outside Africa will be resorted to on selective basis for specific projects in case the capacities and capabilities for the same are not available from within African countries. The proposed Centre should have close linkages with various national consultancy organisations Industrial Development Banks and other centres e.g. Technology Centre at Ibadan, Nigeria.

The Director General commented that the proposed Centre would fill the long felt gap and would act as an instrument to put the countries together and work towards integration of African countries. He further emphasised that the Centre should be able to render Consulting Engineering and Management Services at reasonable costs lower than what African countries have to pay at the present moment to the foreign consultants. He was of the opinion that in implementation of projects similar to ones which have been once handled by the Centre, considerable savings would be effected as the same mistakes would not be repeated. He cautioned that suitable ways and means should be devised to make the Centre a success as the big giants operating now would try all means not to let the Centre develop as its development would amount to thier loss of business

African Development Bank (ADB)

Meeting was held with Mr.Yuma and the rationale for establishment of the Centre with its objectives was explained. It was further added that most new technological ideas and concepts originate from the work of consultancy organisations simply because they are in the best position to identify given problems and situations. The financial institutions should look upon such involved research and development work as investment into the future and therefore can to some extent help growth of consultancy organisations by contributing in the form

of financial help during the formative years of the Centre. Mr. Yuma was very enthusiastic about the establishment of proposed Centre and made certain concrete proposals as follows:

(a) There should not be any duplication of services and the Centre should act towards growth of Consultancy organisations;

(b) The Centre should act as an Agency with aims and objectives to promote the growth of Consultancy profession and achieve collective self-reliance in the field rather than give an impression to the existing organisation of an institution being thrust on them;

(c) The Centre should work towards ensuring that foreign technologies are not transplanted indiscriminatley as such in the member countries;

(d) It should work towards development of self-confidence in the organisations existing in the member countries.

Bureau de Developpment, Abidjan

Meeting was held with Mr. Agnin Erecoumou of Bureau de Developpement Industrial Abidjan. The envisaged aims and objectives of the Centre were explained in order to solicit the views of the Bureau. Mr. Erecoumou was very favourably inclined towards the establishment of the Centre as it is bound to result in reduction of the dependence on foreign countries for establishment of industrial projects.

Mr. Diara, Consultant in Private

The objectives of the Centre were explained. Mr. Diara mentioned that he had done work towards formation of an association of Consulting Firms in West Africa. He cautioned that local consultancy firms have to face

stiff competition from foreign firms in view of the fact that local executives are very demanding in the exactness of the services to be rendered from the local consultants which is not the case for assigning jobs to foreign consultants. He also further mentioned that the Centre should work towards establishment of credibility of local consultants firms in view of its character in addition to the other objectives of the Centre. Mr. Diara is an economist by profession.

2.8 NIGERIA

The following Ministers and Organisations were visited and discussion held with the officals:

(a) Federal Ministry of Industry
(b) NISER - Lagos Division
(c) Federal Ministry of National Planning
(d) P.E. (West Africa) Ltd. - Management Consultants
(e) Coopers & Lybrand Associates
(f) ARCEDEM - Ibadan
(g) NISER - Ibadan
(h) Leyland Motors (Nigeria) Ltd.
(i) Federal Ministry of Science and Technology
(j) Association of Consulting Engineers
    (i) Meeting with the new President
    (ii) Meeting with the Immediate Past President
(k) Nigerian Institute of Management
(l) Federal Ministry of Works & Surveys

Federal Ministry of Industry

Meeting was held with Mr. M. E. P. Udebluwe, Permanent Secretary, Ministry of Industry and his officials in order to get their views on the proposed Centre and its objectives. He was very enthusiastic about the establishment of the Centre in order to achieve the goal of collective self-reliance for the provision of Consulting Engineering and Management Services for the national and multi-national projects in African countries. He emphasised the need of proper co-ordination of the Centre with the Centre for Engineering Design and Manufacture in Ibadan as the two Centres can maximise the facilities available. He further added that in due course Regional Sub-centres could be established in other countries under the umbrella of the proposed Centre.

Foreign consultants are being used by his Ministry in partnership with indigenous consultants whenever it is necessary to do so. There is also a consultancy Service Unit within the Ministry.

P.E. (West Africa Ltd.) - Management Consultants

Discussions were held with Mr. I. Afam Nwanze and Mr. K. C. Scoones of P.E. Consulting Group, to solicit their ideas regarding the establishment of the Centre. It was explained that the Centre can take the shape of a nucleus organisation to co-ordinate amongst various African countries and offer a package of services for the entire gambit of Consulting Engineering and Management Services from under one roof and serve as a store house of information on industrial projects which can be drawn upon by member countries. The views of the Consulting Group were sought specifically, on the shape the Centre should take and its envisaged role towards industrial development. They suggested that the Centre should act as a co-ordinating agency and would thus help increase the credibility of local consulting groups.

The Centre should formulate associations with existing consulting firms capable of rendering quality services in order to offer a wide spectrum of services and project a favourable image of the Centre. The Group has undertaken services relating to economic surveys, feasibility studies, architectural and civil engineering designs for factories, development and optimisation of engineering processes, formulation of procedures for running engineering industries, data processing, systems analysis and training of personnel. The Group has 60% holding of P.E. Group, London and 40% local Nigerian participation. They have a sister firm known as A.W. Consultants that specializes in rendering services relating to financial management and accounting. Thus they are able to broaden the spectrum of services. At the present moment, about 50% form local professionals. They have about 10 local professionals employed in Nigeria and about six in Ghana where they also have an office. The Group is not very enthusiastic about rendering consultancy services in French speaking countries yet, as they felt that it does not offer much opportunity to them in view of the strong ties these countries have with France

They charge about N 2,000 per week on the average for the services of a professional and for the top professional with vast background the charges may go up to N4,000. They are at present engaged in preparation of comprehensive feasibility studies for an oil mill and a crown cork project. They would normally charge around N50,000 for a feasibility study of a medium size project.

Coopers & Lybrand Associates - Management Consultants

Discussions were held with Mr. Alan N. Lathom of M/s Coopers & Lybrand Associates Ltd., Nigeria, a firm engaged in rendering a wide variety of specialised services relating to management information systems, electronic data processing, economic and feasibility studies, organisation and planning studies, personnel studies and executive selection for a wide variety of industries, construction companies, commercial and insurance companies, education, institutions, public utilities and government development projects. They also have offices in Kaduna and Ibadan in addition to the main branch in Lagos. The objectives of the establishment of the Centre were explained in depth to Mr. Alan N. Latham who was very enthusiastic about the establishment of the Centre.

They adopt the 'Marketing Concept' in the preparation of feasibility studies for the establishment of facilities which consists in defining the share of market they are going to have and establish the production patterns in consonnance with demand projections rather than establishing production facilities and try to look into marketing problems at a later stage. The Company is in a better position to develop situations suited to the local environments in view of the background of the professional staff which has generally long term on-the-job experience locally. In view of their large group they are in a position to suggest solutions based on the latest concepts and also in cross fertilization of ideas brought forward in actually evolving appropriate solution in a large number of countries all over the globe. They also arrange for training courses of Accounts Executives

to give them a practical insight into the accounting procedures and systems.

The Company generally charges on an average N.2,000 per week for professionals depending on the qualifications and experience and N.3,000 per week for very Senior Professionals. For the provision of an expert from the U.K. the charges would be around 40% more than those for the utilization of professionals based locally. They have had a turnover of N.0.5 million per annum in the past.

There are altogether 21 consultancy firms registered as members of the Nigerian Association of Management Consultants of which Coopers & Lybrand Associates Ltd is one. The firm has branches in Senegal, Mauritius, Liberia, Ivory Coast and the Sudan. It was confirmed that the Nigerian Market is at the present moment a seller's market. They do not as a matter of course mointor projects, but they do insist on feed-back from clients.

NISER (Nigerian Institute of Scientific and Economic Research) - Consultancy Services Unit (Federal Ministry of Industries

Meeting was held with the following people at the above offices:

- Mr. O. Akin Adubifa
  Co-ordinator and Principal Consultant;
- Mr. O. H. Oluwole,
  Senior Management and Technical Consultant;
- Mr. E. E. Chibundu,
  Senior Consultant in Management.

This branch of NISER is attached to the Federal Ministry of Industries and it provides services to other government Ministries and Parastatals through this Ministry. It has 100% Nigerian Staff and it carries out sectorial studies as well as research oriented work. Training programmes had been planned in this unit, but it has not been implemented. This is due to shortage of

staff. The unit will be willing to extend services to French speaking African countries.

NISER - Ibadan Business and Industrial Consulting Division

There are 35 members in this Division, out of which 20 are professionals and 15 non-professionals. Meeting was held with about 15 professionals of the Division who are consultants in various fields. They carry out Project Design including preparation of feasibility studies and also Project Monitoring, but they have not gone into Engineering Design because of staff shortage.

They charge lump sum fees based on reimbursibles. Fees are in the region of N.5,000 minimum for projects upto N.50,000 maximum for projects upto 50 million. They make use of outside consultants especially for Market studies, Geology, and monitoring of projects. They also have connections with Foreign Consultants handling Federal Government projects. They understudy and monitor the activities of such consultants.

They have carried out studies for Nigeria and Zambia in the past in the use of Zambian Copper for Industries in Nigeria. The Feasibility Studies were financed by Nigeria, Zambia and UNIDO. They have also carried out studies for Aluminium Smelting for INDACO. Other projects in which they have participated are the Extension to glass industry in Ughelli, Nigeria and also Nigerian Yeast and Alcohol Industries.

The Nigerian Institute of Social and Economic Research (NISER)

NISER is an autonomous institution established originally for research into Nigeria's economic and social problems. During its twenty-eight years of existence, the institute has undertaken extensive research into problems of economic development and planning, agricultural and industrial development, foreign trade, public finance, education, health and social welfare.

The Institute had its beginnings in 1950 when it was envisaged that the then British West African countries needed an institute which would provide information on a variety of issues of urgent and vital importance to the future social development of the countries. For this reason, the West African Institute for Social and Economic Research (WAISER) was founded in 1950 on the campus of the then University College, Ibadan (now University of Ibadan).

In 1960 however, WAISER was dissolved and replaced with two research units - the Economic Research Unit in the then Gold Coast (now Ghana) and the Nigerian Institute of Social and Economic Research (NISER).

Between 1950 and 1960, WAISER was financed by the Federal Government of Nigeria, and the Colonial Development and Welfare Fund. Since the independence of Nigeria in 1960, NISER has drawn its subvention from the Ministry of Economic Development (now National Planning), supplemented by grants for specific purposes from other agencies.

Because of its location and its close relationship with the University of Ibadan, the staff of the Institute was originally appointed by the Council of the University, and they enjoyed privileges and conditions of services similar to those of the University, until December 14, 1977, when NISER was established as an autonomous institute by Decree No. 70 promulgated by the Federal Military Government of Nigeria. Land adjacent to the University of Ibadan, has been acquired and the building of the Institute's permanent complex has just about begun.

The research and consultancy policy of the institute is formulated by the Governing Council on the basis of proposals by the Director of the Institute, in conjunction with NISER's Heads of Division. In 1970 the institute established a Consultancy Services Unit.

Initially, NISER's consultancy services were furnished exclusively to the Federal Ministry of Industries, through the Consultancy Services Unit based in Lagos. In fact, it is with pride that NISER can state that no major industrial project of this Ministry has been embarked upon and implemented without some NISER Involvement at some stage in its evolution. This intimate relationship still continues. In addition to this more-or less in-house consultancy role, NISER has taken steps to provide its consultancy services to other clients as well. In fact, the Federal Government Decree that established NISER as an autonomous entity specifically included a mandate to the institute:

> "to provide consultancy services to the Federal and State Governments, their agencies, and other organisations, in the fields of industrial, economic and social development."

The Business and Industrial Consultancy Division of NISER is headquartered at Ibadan. A unit of the Division (The Consultancy Services Unit) is maintained in Lagos to service the continuing and more short-term consultancy needs of the Federal Ministry of industries in particular and the Federal Government establishments in general.

The Institute currently does its consultancy, research and training through five Divisions, namely: (1) Agricultural and Rural Development; (2) Business and Industrial Consultancy (3) Economic Planning and Development; (4) Physical Planning and Development, (5) Social Planning and Development. A senior staff of about 100 handles research and administration. The support staff members number approximately 140.

In fulfillment of its consultancy functions, NISER carries out:

- feasibility and appraisel studies
- identification of and negotiations with potential technical partners of the Federal Government in industrial projects, and ad-hoc advice to the Federal Government on issues of industrial development.

NISER publishes its research findings in book, monograph, occassional paper and mimeograph report-forms. Its catalogue of publications, annual reports brouchers, feasibility reports and the annual publication, - "Performance of Major Business Enterprises in Nigeria," - are obtainable upon request.

NISER has a 21,500 volume library that services its own research staff, researchers all over the country and in fact, around the world. Its up-to-date serial section of Government publications and journals, and its press library are always in great demand.

Some recent NISER accomplishments:

- NISER carried out the economic studies for the Ajaokuta steel town
- NISER participated in the socio-economic studies so necessary to the establishment of the great Kainji Dam. This included an analysis of the displacement and resettlement of thousands of people who lived in the area, and the electrical and agricultural advantages that have been made available to Nigeria because of the Dam;
- NISER carried out the replanning of the transportation system of Ogun State;
- NISER prepared the background documents for the central provisions of the treaty establishing (ECOWAS),
- NISER successfully conducted the survey of the economics, trade relations, monetary matters, industrial development, transportation and communications of ECOWAS members states;
- NISER carried out the groundwork for the fifth session of the United Nations Conference on Trade and Development (UNCIAD) on the "New International Economic Order",
- NISER was involved in studies on the measurement of real progress at the local level and the workshop on Planning Strategy for the 1980s which prepared the groundwork for the Nation's Fourth National Development Plan;

- NISER has carried out numerous specific feasibility and other industrial development studies for at least 15 of the 19 states, as well as for the Federal Government;

NISER has organized several training programmes, including a series for local Government planners from all over the country, NISER has carried out surveys of the Resources of each of the 19 states of the Federation and has held corresponding circuit seminars based on these surveys.

NISER has had a major role in the implementation of all significant industrial development projects spear-headed by the Federal Government since 1970. NISER looks forward:

- to a home of its own on the permanent site at Ojoo, Oyo State, to make room for even better service to Nigeria;
- to geographical expansion, at first in zonal offices in Kano, Jos, and Aba and ultimately to a zonal office in each state;
- to further areas of research in:

(i) Social Development:

. Multinational Corporations and the Nigerian Process of Indigenization;

. Educational and Training Content of Manpower Requirements in the Nigerian Economy;

. The Dynamics of the Nigerian Labour Force;

. Traditional Medicine in Nigeria

(ii) Agricultural and Rural Development

. Economics of production of maize, cowpea, yam and rice in some selected states of Nigeria;

. Artisonal Fishery in Nigeria;

(iii) Physical Planning

. Environmental Sanitation in Nigeria;

. Housing

. Transportation

. Land matters

(iv) Economic Development:

- Monetary Development and Management;
- The Nigerian Energy Sector
- Productivity in Nigerian Manufacturing Industries

NISER's projects will be more policy-oriented than ever before and many will be short term in nature in order to meet the needs of policy makers who often have to make short-term decisions.

(v) Training facilities will be provided in:

- National Development
- Project Evaluation
- Appriasal and implementation of Agricultural and Industrial projects
- Social and Welfare issues
- Sectoral Planning

In pursuance of its training mandate NISER hopes to grant diplomas and certificates to successful participants in these programmes.

African Regional Centre for Engineering Design and Manufacturing (ARCEDEM)

Meeting was held in ARCEDEM with Dr. Banjo and Mr. Kundu regarding establishment of the Centre. Dr. Banjo mentioned that many a time ECA received requests for consultants to carry out studies and it was found that the type of consultants required can always be found in the countries making the requests. This was due to lack of information and awareness and the proposed Centre will help in remedying this situation, Another important aspect of the Centre will be in the field of advanced technology for African consultants. The foreign consultants learn in the process of technology transfer at the cost of clients and thereby depriving local talent to develop and suggest appropriate solutions. If this state of affairs continues, he felt that the process of technology development in Africa will receive a big set back because until and unless local CIMS are developed, the process of technology development in Africa cannot be achieved.

He pointed out that there was a feeling that the Centre should be a large multidisciplinary consulting engineering office capable of rendering full services for various projects. He was of the opinion that such a universal consulting engineering organisation concept is not feasible in the same manner as a universal technology centre concept is not feasible. A technology centre cannot develop technology of each type and this has to be achieved in different institutions.

He felt that the centre would have achieved a big objective if it develops among people awareness to use local expertise and not depend mostly on foreigners. By inviting foreigners the development objective is being lost as most of the big overseas consultants send their junior staff to learn on the job in Africa and the development of local expertise is hampered. No foreign consultant will ever bring complete knowledge on a project. Problems are unique though they may have certain similar features.

Another aspect is that creation of a universal centre shall hamper the growth of consultancy profession in various countries. He felt that the Centre should immediately take off by collecting the information regarding the capacities and capabilities available with various organisations in different countries and the centre can coordinate by formulating project teams for projects in different countries.

He was of the opinion that NISER can undertake economic studies and does not undertake the implementation of the projects. He felt that most of the consultancy organisations in Africa have very skelton staff and even if they get a job, they start looking for manpower abroad which is not very healthy. The need is how to develop such consultancy organisations to undertake big jobs by forming consortiums. He went on to the extent that for proper growth of consultancy organisations, professionals who join firms should be encouraged. He

further pointed out the rationale of complementarities between ARCEDEM and the Centre for Consultancy. The consultant's role is to apply technology developed in new ventures. ARCEDEM is well funded and it will be a purely monetary advantage if the Centre functions as one division of ARCEDEM. The facilities for training can be very usefully employed by the Centre and the reproduction facilities and drawing office facilities can be used. The Centre can have a staff strength of about 30-20 professionals and 10 non-professionals. The Centre shall have achieved its objectives if it can identify at the beginning the various steps involved in the establishment of big projects and helping entrepreneurs to identify from where they can get such services.

Mr. Kundu submitted to the mission the following documents:

(a) Budget of the Centre 1980-82;

(b) Progress report on ARCEDEM submitted to the 16th session of the ECA/ seventh meeting of the Conference of Ministers responsible for Economic Planning/development held in Freetown, Sierra Leone from 6 to 11 April 1981 and Second meeting of the Technical Preparatory Committee of the whole.

Leyland Motors (Nigeria) Ltd. - Ibadan

The company has 60% Nigerian shares and 40% Leyland. Their production programme is as follows:

- 4 ton Landrover - 35 to 40 per week,
- 6-20 tonnes Middle range - 30 per week
- 20-35 tonnes Heavy range - 8 per week
- Range Rover - 6 per day

They have an inbuilt training programme to meet their needs but would not object to train people from outside provided they are paid for it. They are at present doing CKD assembly. The expertise for establishment of the factory came from the British Leyland in the United Kingdom.

Federal Ministry of Science and Technology: Lagos

Meeting was held with three officials of the Ministry:

(i) Mr. F. A. Adetula;
Secretary for Finance and Administration

(ii) Mr. J. A. Messle;
Principal Secretary

(iii) Mr. M. U. Nnaji;
Assistant Secretary

The Ministry came into existence in October 1979. There are 22 Research Institutes in the country under its umbrella: 18 of these for agriculture, livestock and forestry. 2 for Industrial Research (FIIRO and PROBA) and 2 for road and building research. The Ministry also liaises with the Universities and Polytechnics. One of the short-comings of the Ministry is the shortage of qualified staff. The following proposals are the objectives during the five-year development period:

(a) Science and Technology Data Bank;
(b) Energy Research Institute;
(c) National Remote Sensing Centre;
(d) Use of Research Results;
(e) National technology Research Centre.

It is the intention of the Ministry to encourage Intermediate Technology. The Ministry is very enthusiastic about the proposed Centre and it will be in a position to make suggestions to the Centre on the use of results of reasearch being carried out in the various Research Institutes in the Country.

Federal Ministry of Works and Surveys: Lagos

Meeting was held with the Ministry and the following officals were present:

1. Mr. Monkiti - Secretary, Administration and Finance
2. Mr. Abraham - Director of Buildings
3. Mr. Adabekum - Director, Federal Surveys

4. Mr. Mbah - Director of Lands Engineering
5. Mr. Edozien - Director, Electrical Division
6. Mr. Obosi - Director, Highway Division
7. Mr. Eseke - Director, Mechanical Engineering Division.

The purpose of the proposed Centre was explained to them and questionnaires were given to everybody present; answeres will be sent to ECA.

They feel that it is appropriate that the Centre should be established in Nigeria as there are many indigeneous consultants in the country and also the biggest concentration of projects in any African country is in Nigeria. Inter-regional centres can then be established in other countries to co-ordinate the activities of existing consulting organisations in such countries.

The Association of Consulting Engineers of Nigeria (ACEN)

Meeting was held with the President of the Association, Engr. Obi Obembe. The objective of the Centre was explained in depth. The President mentioned the various problems facing consulting engineers in Nigeria. It was not expensive to start a consulting organisation but the problems mainly are:

(a) Lack of jobs and tendency of giving jobs sometimes to foreign consultants;

(b) after getting the jobs, the difficulty to get manpower.

The Centre can help in ensuring that big jobs can be handled by local consultancy firms by adopting consortia approach. He further added that another sphere in which the Centre can help is in the professional indemnity of consulting engineering firms.

Another problem is the fees charged by the Architects on the projects in which they work with consulting engineers. The Centre can play the role of formulating uniform policies regarding the fees paid

to architects and consulting engineers which should be based on the actual portion of work carried out by them. It was also pointed out that the Centre can have facilities for French courses as part of their other Management Development Courses. There are about 150 consulting engineers on the register of the association.

A further meeting was held with Engr. F.A.O. Phillips, the past President of the association. He was the first African General manager of the Nigerian Railways. He mentioned the various problems in industrial development and consultancy. Sometimes the raw materials are heavily taxed by the Customs whereas the cost of the spare parts are minimal. This results in slow development of spare parts industry. Maintenance of equipment is very important but not much attention is paid to this aspect of projects. For example there is a tendency to put individual room air conditioners rather than central because of lack of maintenance. Proper training of Engineers is also very essential and firms should get concessions on the amount spent by them on training.

In the consultancy field sometimes, jobs are assigned to non-professionals who in turn go abroad to find people to execute them. This is not a very healthy practice for the country and he also mentioned the problems regarding relations between architects and consulting engineers. The architects not only take their fees but also get fees for work which is purely engineering. There are also other anomalies in the scale of fees and all these things can be rationalized by the Centre to promote growth of the profession.

He mentioned that Overseas Consultants sometimes criticize the work of indigeneous consultants in order that they can be patronised. This concept of super-consultancy is causing problems and there is need to devise rational solutions.

Nigerian Institute of Management (NIM)

Meeting was held with Mr. Martin A. Oworen, Deputy Director-General who explained that the Institute was set up to promote and encourage modern art and science of management. Their main functions are consultancy services, arranging conferences and production of management publications. They have 300 company members and 6,000 individual professional members. They have working relationships with SrGv Management Consultants, Phillipines. Fees are charged on the basis of man-days spent and they normally charge 250 per day for senior professionals like director and senior consultants. They are able to keep the fees at this level in view of the fact that they have been established to promote industrial growth and it is operated as a non-profit making organisation. During 1979, the organisation had an approximate turn-over of 954,000 from the fees charged for holding various courses and around 100,000 from consultancy operations. It was felt that the concepts of consultancy are ever changing and upcated due to various innovations and the Centre can keep abreast of latest techniques and thus ensure healthy growth of consultancy profession. This will also increase credibility of local consultants. They generally send their core faculty members to other countries so that they can keep abreast of the latest developmemtin management operations and consultancy. Scmetimes they receive participants from Ghana and Tanzania for their training programmes.

Federal Ministry of Planning

Meeting was held in this Ministry with four officials headed by Mr. U. J. Ekaette Secretary for Finance and Administration (others are Mr. C.D. Dokoge; Principal Secretary and Mr. F. A. Olalbaju; Senior Assistant Secretary).

The rationale and objectives for establishment of the Centre were discussed in depth and it was felt that the Centre would act as a co-ordinating agency for

various national institutions rendering consultancy services and would help pool together the resources and make optimal use of the vast reservoir of trained man-power available.

It was mentioned that the Ministry was intrigued by the number of institutions established by ECA and the financial difficulties being faced by the institutions. The need for such centres cannot be undermined but it must be recognized that there is a certain amount of duplication if one looks at the objectives and functions of these Centres. The proposed Centre would fill a long felt need but it may be worthwhile to consider its integration with ARCEDEM so that advantages can be taken of the complimentarities of the two Centres and also take advantage of the existing infrastructure being developed by ARCEDEM.

The functions of the Ministry are more in the nature of a co-ordinator and they sift the proposals received from the various state government and evolve an integrated composite plan properly articulated to fit in national priorities and objectives. They involve the specialists and professionals at the appropriate stages before formulation of plans and afterwards for implementation of the planned objectives. They have appropriate systems for monitoring projects in different ministries and also monitoring is done by the Council of Ministers. The appropriate linkages in order to achieve the planned objectives and resultant infrastructure developments projects are kept in view during plan formulation.

Final meeting was held with the following Ministry of Industry officials to conclude the mission's visit to Nigeria;

1. Alhaji Mogaji Mohammed:
   Director of Project Implementation;
2. Mr. S.O.Uaboi, Assistant Director,
   Small Scale Industries

3. Mr. S. A. Longe, Assistant Director
   Engineering Division

4. Mr. M. P. U. Obaro, Assistant Director
   Policy and Planning Divison

5. Mr. R. O. Faloye, Assistant Director
   Upper Policy and Planning Division

2.9 ZAIRE

The following Ministries and organisations were visited in Kinshasa.

(a) SPE (Bureau du President Fondeteur - President de la Republique);

(b) Ministry of Planning

(c) World Trade Center Zaire (WTCZ);

(d) Ministry of Economic Development;

(e) Ministry of Foreign Affairs.

Bureau du President Fondateur - President dc la Republique (SPE)

Discussions were held with Prof. Dr. Ing. Malu Wa Kalenga, Charge de Programme of the Bureau to solicit his expert views on the modalities of the establishment of the Centre. The aims and objectives of the Centre were discussed in order to develop it into a Centre meant for filling in the gaps and act as a co-ordinating agency to render complete package of consulting engineering and industrial management services for the development projects. Prof. Malu commented that the name Centre does not indicate the functions of the proposed venture and probably Facility or Service Institute may be more appropriate. He felt that the proposed venture would fill in the long felt need of the African countries to make a start towards the cherished goal of collective self-reliance. They have on the roll of their Bureau about 44 professionals consisting of engineers, economists and management experts. The Bureau has full autonomy and operates generally on its own resources. They induct specialists from developed countries to carry out studies and normally they are paid on an average around US Dollar 7,700 per month plus house, plus transport, etc. The scale of fees charged by the Bureau are variable depending upon the complexity of project and the investments involved.

He felt that the proposed venture would have served its purpose if it evolves strategies aimed towards convincing the countries regarding the capacities and capabilities of local expertise which is quite logical in view of the vast reservoir of professionals available to the proposed Centre.

Normally on the bilateral projects the donor countries insist on the consultancy work being undertaken by them and go to the extent that the equipment should also be procured from them. He was of the opinion that one of the critical inputs from the Centre could be in their help in assessing the consultancy requirements, indigenous inputs possible and the consultancy work for which resort has to be made now by engaging foreign consultants. They normally engage consultants from friendly countries for their requirements after carefully sifting the indigenous contribution which can be made by the local consultancy organisations.

World Trade Center Zaire - Centre du Commerce International du Zaire (WTCZ)

The WTCZ is primarly engaged in promotion of export of commodities and exhibition of various indigenous products. They have an elaborate information system to gather latest information in order to give a boost to the export promotion thus earning valuable foreign exchange for the country. They have a very crucial role to play and help the exporters by making available information on the export markets free of charge and in addition organise seminars for the benefit of prospective exporters so that they can be fully conversant with the latest techniques and methodologies for export promotion. The actual work of transport etc. is left to the individual parties who normally hire transport companies which provide a vital link for exports. It has also been observed that sometimes foreign investors come and carry out investment studies for export oriented projects on their own and the local input is not very substantial in such cases.

Ministry of Planning

Discussions were held with Citoyen Usele, the Acting Permanent Secretary in the Ministry of Planning in order to have suggestions regarding the proposed Centre. The aims and objectives of the Centre were discussed and it was explained that a start has to be made in the highly professional field of Consulting Engineering and Industrial Management Services which would result in a host of advantages accruing to the various African countries. The Permanent Secretary felt that the Centre would be very useful for rational industrial growth in consonance with the socio-economic aspirations of the people and would help collective self-reliance in this field ultimatley reducing the dependence on imported plant and equipment. They were completely dependent on foreign consultants for studies relating to establishment of industrial projects. However, in 1978 they have made a start in undertaking the project appraisal work locally in order to ensure that development projects are relevant to the socio-economic conditions prevailing in the country. They have technical as well as financial constriants in view of large number of industrial projects but they normally look for local consultants before engaging foreign consultants.

UNDP has plans to spend 1 million dollars and another 1.5 million DM is expected as bilateral aid for the various studies and pre investment expenditure. He further added that the objectives of the Centre are very logical as they have been trying to develop capacities and capabilities in the field of CIMS. In view of this, co-operation between the Centre and local organisations will be mutually beneficial. He felt that sometimes effort is not made to utilize the services of SPE in view of the bilateral aid but was of the opinion that SPE has capacities and capabilities to undertake fair amount of consultancy assignments for industrial projects. He further added that utilization of indigenous equipment would reduce the import content of plant and equipment.

Ministry of Economic Industry and Commerce

Discussions were held with the Acting Permanent Secretary of the Ministry in order to have his ideas regarding the establishment of Centre. He was of the view that concept of consultancy is comparatively new to them and one of the contributing reasons is that the local expertise has not been developed due to their non-involvement in this highly professional work. The foreigners normally are not inclined to utilize and associate the local professionals and this has resulted in non-availability of local talent for the growth of this profession. Normally the Agencies who provide finance for establishment of projects look for consultancy organizations from France and Brussels to undertake this specialized service. He was of the opinion that a statue might have to be enforced that consultancy organisations from abroad can only be engaged if local expertise is not available. Even in this case the local organisation which has some amount of capacity and capabilities should be entrusted with the work who in turn may utilize the services of foreign consultants in order to give a complete package of services to the entrepreneurs. This is the only rational approach to develop the local organisations in the field. They have made a start and the local expertise is being used to some extent. They are utilizing SPE for project appraisal and evaluation of schemes to ensure that they are in line with the socio-economic objectives. University is being utilized for problems connected with social and economic research. He felt that Ministry should encourage the proposed Centre and mentioned that it is a very good initiative taken by ECA and added that a linkage should be established by the Centre with one of the organisations and he felt that their Ministry can be the model agency for this purpose.

Ministry of Foreign Affairs

The Permanent Secretary of this Ministry was summoned to the President's Office just before the mission arrived to keep an appointment with him. The questionnaire was however deposited in his office for answers to be sent to ECA.

2.10 SUDAN

Meetings were held with the following Ministries and Organisations:

(a) Ministry of Industry - UNIDO Section;

(b) Meeting with UNDP Representative

(c) Management Development Centre

(d) Ministry of Finance - UNDP/IBRD Planning Assistance and Training Project

(e) Ministry of National Planning - Project Planning Unit.

It was not possible to meet the officials of the Ministry of Industry because the Ministry is in the process of re-organisation after it was disbanded by the Government.

Meetings were therefore held with the following people:

- Mr. Yves Biry Chief Technical Adviser of the Ministry of Industry Project Improvement Unit (EIU) of the Public Sector Industries - a UNIDO Expert.
- Mr. Garth Ap Rees, the Resident Representation of UNDP
- Mr. Muzzamil Abdul Hamid, Deputy Director General of the Management Development Centre.

Mr. Garth Ap Rees - Resident Representative of UNDP

He explained the present position in the Sudan in respect of Engineering Consultancy. The UNDP has awarded sub-contracts to local firms in the past and it is now setting up some money for the Sudanese Government to induce qualified Sudanese engineers to come back and work with the local expatriate firms of Consulting Engineers. Many of the Sudanese professionals are at the present moment working in the Gulf States.

The UNDP spends between US$.100,000 to US$.200,000 annually in consultancy. The escalation in consultancy

fees charged by expatriate firms has now made the Sudanese Government realise the importance to develop local expertise in consultancy.

Mr. Yves Biry, Chief Technical Adviser of the Ministry of Industry

UNDP has now embarked on the Phase Two of the improvement of the efficiency of the public sector industries in the Democratic Republic of the Sudan. In order to assist the Government in its efforts to enlarge and strengthen the industrial sector, technical assistance has been provided for the improvement of the efficiency of the public sector industries from 1976. Phase two of this commenced in 1980. Their work covers the existing factories in the field of foundry engineering, leather, sugar, spinning and weaving, etc.

The project is essentially designed to bring in high-quality industrial management expertise in a team approach, for two inter-connected purposes, firstly to introduce modern, effective management methods into operating industrial corporations and individual factories in the form of direct assistance. Secondly, while sustaining this in itself fully justified task, carry out all their work jointly with the national counterparts and the respective corporation and factory managers, so that de facto they will receive "on-the-job" instruction, and have the chance of obtaining practical experienced managers in action, albeit in essentially consultative capacity. Other activities such as specific training seminars and courses, will supplement the above approach.

In concurrence with the above overall concept and the immediate objectives of the project, the expert team carry out four specific types of activities:

(a) Strengthen the organisation and management monitoring capacity of the central "Monitoring Unit/Technical Bureau" within the Ministry of Industry.

(b) Improve the management system and the efficiency/ productivity/profitability of at least three public counterparts and the respective individual factories within their responsibility.

(c) Provide assistance for the implementation, planning and the management of projects for establishing new plant and corporation activities.

(d) Carry out direct training activities for the national counterparts and managers of corporations and factories in various specialized fields of industrial management.

This Phase Two will cost altogether US$1,795,518 which is made up of US$378,949 input from the Sudanese Government and US$416,569 input from the UNDP.

Management Development Centre

Meeting was held with Mr. Muzzamil Abdul Hamid, the Deputy Director-General of the Centre. The Centre was established in 1965 as a joint project between the Government of the Democratic Republic of the Sudan, the United Nations Industrial Programme (UNDP) and the International Labour Office (ILO). The ILO was the executing agency at the beginning.

In 1968, the Centre which was a unit of the Labour department became a corporate body (Act No. 24, 1968, amended in 1979). The Act emphasised the autonomy of the Centre, and provided for the setting up of the Governing Board entrusted with the overall policy under the supervision of the Minister of Public Service and Administrative Reform. The objective of the Centre in general are, "Revising the standard of management in the public and private enterprises by providing training and consultancy services". In this connection, the Centre offers assistance primarily to Business Enterprises, both public and private and not to the Civil Service Departments as such.

The MDC has a Governing Board appointed by the Minister of Public Service and Administrative Reform, the Board represents a wide variety of interests which include government ministries, departments, and public corporations, together with employers' organisations as well as a number of distinguished individuals with knowledge and experience in management development.

The work of the Centre is carried out by the following main sections:

General Management	Supervisory Training
Production Management	Research and Information
Management Accounting	Training Administration
Marketing	Administrative Services
Personnel Management	

The Centre provides training of a general and specialized nature (duration ranging from one to six weeks) to top, middle and supervisory management. It is helped by the ILO in respect of the Fellowships, provision of experts and equipment. It has 35 professional staff which includes only two expatriates supplied by the ILO. The Centre can meet the Sudanese requirements in the above mentioned fields. It has collaborated in the past with the following organisations:

(a) Kenya Management Institute;
(b) Irish Management Centre, Ireland;
(c) GBG in West Germany;
(d) University of Chico, California, USA;
(e) Foundation for International Training in Canada;
(f) CESA in France.

The Centre charges approximately Sud.£250 per man-week for consultancy and Sud.£1,000 per week for a whole management training programme. The cost of bringing experts from abroad (though this is funded by the bilateral aid agencies) is approximately US$2,000 per week plus other expenses. The indigenous staff is paid by the Sudanese

Government while the foreign staff is paid by the ILO. The annual budget is in the region of Sud.£0.75 million and this is provided in the national budget. All fees earned from consultancy is paid into the Government Treasury. The fees earned per annum is in the region of Sud.£40,000.

The Centre will be prepared to contribute to the proposed Regional Centre for Industrial Management Services by making available experts. It now receives requests from some other countries for experts especially the Gulf States for courses in Arabic. It co-ordinates with the Industrial Research Institute of the Ministry of Industries.

Mr. M. A. Mahied felt that the proposed Centre should develop expertise especially in the fields of production management, material handling, evolving optimum layouts and optimization studies to improve the operational results of existing investments. He was of the opinion that the Centre would be instrumental in evolving national solutions in tune with the socio-economic goals of the African countries.

Ministry of Finance, UNDP/IBRD Planning Assistance & Training Project, Donald S. Pearson - Team Leader

During the last several years the financial planning for the Government of Sudan has been unrealistic. The previous six year plan has been abandoned in favour of a three year plan and this plan was one year late in being issued. The UNDP/IBRD and the World Bank in conjunction with the Ministry of Finance are currently working on a three year plan expected to be adopted by the Government.

Previous plans were experiencing a 60-65% achievement factor for the start of new projects, approximately a 50% success factor for completion of projects. The subsequent plans should realise a 90-95% success ratio because of a more realistic approach. Originally the plans had been based on an inflated income calculated on sugar and cotton

prices. This income was not realised and the increasing price of petrol wrecked havoc with budgets and plans. Sudan has discovered oil and will shortly be self-sustaining in this product which will eliminate an outflow of hard currency of approximately US$200,000,000 per year.

Mr. Pearson stated that, in addition to the economic problems, the major problems in Sudan were project management in the second, third and fourth levels of supervision; feedback of information so as to provide accurate assessment factors; systems and procedures, scheduling; maintenance; and finance/accounting. The opinion was that a Consultancy and Industrial Management Services Centre would be of positive benefit.

Ministry of National Planning, Project Planning Unit
Mr. Ibrahim Omar Harani, Director

Responsible for conducting pre-investment feasbility studies for the Ministry of National Planning as well as feasibility studies and investment analysis. The majority of their work, after feasibility studies, consists of contract preparation, registering consulting firms, submitting "Offers to Bid" to pre-screened and qualified firms, short listing firms upon submission of bid documents and forwarding of data to Minister of National Planning. The Project Planning Unit (PPU) consists of 15-20 economists, engineers and technicians plus support staff. The numbers of personnel fluctuate as they are experiencing a "brain drain" of personnel to Saudi Arabia and the Gulf States. The PPU works solely for the Ministry of National Planning and is fully funded by the Government.

When possible, contracts are awarded locally for selected feasibility and investment studies ..... primarly within the academic community. The problems they encounter in the local awards is that the professionals from the University of Khartoum (and some technical schools), can only work in the summer on a full time basis and even then

the PPU cannot be assured of continuity because the "brain drain" affects the academic community as well. The PPU would be favourably inclined to utilize the services of a Regional Centre for Consultancy and Industrial Management Services if the services rendered are of a professionally high standard. They could, during slack periods provide experts in economic studies but are not in a position to offer any direct monetary support.

2.11 ALGERIA

Discussions were held on 22.6.81 with Mr. Salah Borjini of UNDP to get an idea regarding the industrial programmes and requirement of consultancy services by the Algerian Government. The aims and objectives of the Centre were explained in depth. He gave an outline of the various activities and promised to arrange meetings with the concerned ministries so that an indepth discussion could be held on the various facets of the establishment of the Centre for rendering consultancy and industrial management services.

Ministry of Habitat

Discussions were held with the Ministry of Habitat, (department which looks after development of professionals). The aims and objectives of the establishment of the Centre were explained in-depth and the consequent advantages which will accrue to the African economy and development programmes on the centre becoming operational.

He explained that in Algeria each Ministry has a department managed by professionals in the various fields in order to develop preliminary proposals for consideration of Ministry of Planning for being included in the plans after detailed discussions between the Ministry of Planning and concerned Ministry. Regarding the organisations which render consulting engineering services SOCIETE D'ETUDES et de REALISATIONS INDUSTRIELLES (SNERI) which is controlled by the Ministry of Light Industries is engaged in rendering consulting engineering services in a wide variety of industrial fields. Other consulting engineering organisations in the public sector are SONATIBA, DNC, BEREG, etc. which are engaged in rendering consulting engineering services including the services required for construction sector. There are also some organisations in the private sector which offer consulting engineering services. He was of the opinion that the idea of creation of Centre is good and mentioned that the Centre in addition to other activities should also cater to the needs of development of professionals by organizing

training courses, seminars and workshops for professionals.

SNERI (Societe Nationale d'Etudes et de Realisations Industrielles)

Discussions were held with SNERI and the following officials participated:

Mr. A. Missoume, Director-General
Mr. H. Saibi, Director
Mr. A. Yeddou, Director

The aims and objectives of the establishment of the Centre were explained in-depth. It was further explained that the Centre will be an instrument for achieving the goal of collective self-reliance in consulting engineering and management services and would also help in promoting local equipment manufactures. Further the Centre would also be effective in considerable savings of valuable foreign exchange at present being spent by most of the African countries for obtaining consulting engineering services and capital equipment. The foreign exchange thus saved could be usefully deployed for their developmental programmes which hiterto could not be taken up because of paucity of foreign exchange. It is also felt that the Centre will play a vital role in bringing together various African countries for establishment of multinational projects based on extended markets of a number of countries and taking advantages of the complementarity of resource endowments.

SNERI is an autonomous body under the supervision of Ministry of Light Industries and is manned by a total staff of around 5000 with branches in other cities of Algeria. It was created in 1968 to render the entire range of services required for establishment of industries right from the stage of inception to realization through the intermediate stages of feasibility study, selection of appropriate technology, evaluation of collaboration proposals, detailed engineering, construction and construction supervision, etc. SNERI has over the years

developed expertise in certain specialized fields like environmental engineering and sanitary engineering. They have also undertaken various projects and activities in order to standardize the equipment being used for various industrial programmes of the country. Realizing the needs of consulting engineering and management services, the Government of Algeria had established joint ventures in various parts of Algeria (Joint venture in Iran was established in 1977, Joint venture in Bijaja was established in 1974 with Swiss collaboration; joint venture in Anaba was established with Yugoslavia collaboration; joint venture in Algiers was established with French collaboration) with participation of various foreign countries. The professionals engaged were fully alive to the needs of Algeria for rational growth of consulting engineering profession and fullest advantage was taken of the foreign professionals in order to develop the capacities and capabilities of the Algerian professionals during the period of collaboration. The foreign countries have slowly withdrawn after developing the local professionals for rendering consulting engineering and management services.

SNERI took over all the above-mentioned companies in order to pool together the resources of these companies and rationalize the activities so that the entire spectrum of services for the development programmes of Algeria could be offered by one agency. The consolidation of the various firms has made it possible to improve the performance by making optimal use of the professionals and develop expertise in the highly specialized fields due to the vast reservoir of knowledge available at the disposal of SNERI amassed over the years by implementation of a large number of industrial projects right from the stage of inception to realisation. SNERI does not encourage deployment of foreign consulting engineering firms for complete projects but resorts to maximum involvement of local manpower and the gaps for sophisticated technologies and projects are filled by the involvement of foreign consultant after careful study that the existing facilities in the country cannot

render such services. The consolidation and merger of the various organisations was not primarily done from the profit motive but was mooted out to develop SNERI into a national organisation capable of handling the entire gambit of consulting engineering services right from the stage of inception to commissioning for a wide variety of fields including textiles, chemicals, environment, regional planning etc. and ultimately develop expertise for complicated projects which hitherto were generally being procured to a large extent from abroad. The consolidation has borne fruit and SNERI is now capable of rendering the services along with the varied fields of specialization. The turn over of SNERI in terms of consultancy fees was around 300 million Dinars (or $75 million) from its operations during 1980.

SNERI has complimentary organisations in the country like IMPED which offers industrial management services and SONATRA which provides process engineering and technological inputs for the development projects of the country. BEREC and DNC have the capacities and capabilities to render consultancy services in the field of civil engineering. Thus it would be seen that SNERI coupled with other organisations in the country is in a position to render consultancy services for the specified fields and specialized inputs for establishment of projects are inducted from foreign countries after a careful study, if it is found that such capacities and capabilities are not available indgenously. They have at present no collaboration agreements on a permanent basis but resort to selective collaboration with foreign countries for specialized inputs as and when required.

The normal procedure for implementation of projects consists of various stages clearly identified in order to ensure harmonious industrial development in consonance with the aspirations of the country to improve the living standards of people. As already mentioned each Ministry has a technical bureau which after investigations prepares proposal for establishment of project defining

clearly the investments involved and the resulting benefits accruing to the economy of the country in addition to the other parameters of the project required for initial technical and financial appraisal of the project. The proposal is given a careful thought by the bureau in Ministry of Planning which sends it back to the concerned Ministry for making modifications in the project under consideration to make it match the overall perspective of the plan objectives and various socio-economic considerations. The proposals are carefully thrashed out between the concerned Ministry and Ministry of Planning before the same is included in the plan. Once the project is approved a company is formed under the Ministry charged with the implementation of the project or in case the project was started by an existing company due to similarity with their existing operations, the concerned company is asked to proceed further in the project.

SNERI is also involved in the exercise to provide specialized inputs and give independent advise in case the same is required by the ministries. After go ahead signal is received for the project, SNERI is entrusted the task of preparation of feasibility study for the project under consideration. Activities relating to implementation of projects are undertaken in case such capacities and capabilities are available with local organisations and the implementing organisation entrusts the various firms with work relating to the project and the core staff in implementing organisation is charged with the crucial role of co-ordinating the various activities of the project in order to meet the targets within the stipulated time framework and financial estimates. In case of specialized projects for which it is essential to resort to foreign agencies, SNERI prepares the complete documentation for inviting foreign proposals. The tender bills are carefully scrutinized and recommendations forwarded on the various proposals to the implementing organization. The recommendations are carefully thrashed out before proceeding with further activities relating to the implementation of the project.

The various steps described above ensure avoidance of unnecessary and wasteful expenditure on the projects and at the same time is instrumental in evolving solutions suited to the local environment thus avoiding transplantation of technologies and solutions which are generally not in the best interest of the country. The fees charged by SNERI for consulting engineering services varies according to the nature and complexity of the project but as a thumb rule SNERI charges a fee of 13% for rendering the entire range of consultancy services from inception of the project to the commissioning of the project. The officials were very enthusiastic about the establishment of the Centre and felt that at present there is information gap regarding the capacities and capabilities available in various African countries. The establishment of the Centre would fill the long felt need for such a body in order to promote establishment of national and multinational projects with the minimal dependence on foreign technologies in order to achieve the goal of national and collective self-reliance in the true spirit of Technical and Economic Co-operation among developing countries.

The Centre should also lay stress on human resource development which is a pre-requisite for the successful growth of the vital profession of consulting engineering. They had not taken up any project uptil now in other countries due to their preoccupation in their own national development programmes but felt that such cooperation shall be forthcoming at the opportune moment. The officals were further of the view that in this regard the example of India would be an ideal one which has over the years developed expertise in the various fields and is in a position to offer consulting engineering and industrial management services to the various foreign countries in addition to meeting their own requirements.

Ministry of Light Industries :

Discussions were held with Mr. Sabai of Ministry of Light Industries in order to solicit his views regarding the establishment of the proposed Centre. The aims and

objectives of the Centre were explained in depth and the advantages which will accrue to the participating countries were explained in depth in addition to the positive role which the Centre can play in achieving the goal of national and collective self-reliance.

The planning process followed in Algeria was discussed in depth. Each ministry has got a technical cell manned by professionals to cope with the planning process including making proposals for inclusion in plans, technical application and follow-up activities with the various Ministries including the Ministry of Planning. The cell has capability to some extent for formulation of projects and preparation of pre-feasibility studies. Normally proposals for inclusion in the plan are made either by the concerned Ministry or the corporation under the control of Ministry charged with the responsibility of the implementation of the project. He further explained that a standard format as such has not been prepared for these documents and the manner in which proposals are submitted varies in some respects for different projects and depending upon the complexity of the project under consideration.

Regarding consulting engineering services, SNERI and IMPED are normally associated with the project right from the stage of project concept to commissioning. National Institute for Productivity and Development (IMPED) is capable of rendering Industrial Management Services for the various industrial projects. They further elaborated that the local consultancy organisations had over the years developed expertise for rendering the whole spectrum of consultancy services in a wide variety of fields but still specialized knowledge from abroad has to be inducted for complicated projects in order to evolve most rational solutions for the needs of the country taking into consideration the rapid technological advancements being

made in the industrial development. Such induction of expertise and knowledge is made on a selective basis and in a co-ordinated manner to avoid whole sale trans-plantation of technologies and unnecessary foreign exchange expenditure.

In addition to SNERI and IMPED, there are a large number of other specialized consultancy organisations engaged in rendering consultancy services in a wide variety of fields for different projects e.g. ECOTEC is engaged in rendering consultancy services in the various civil engineering fields for infrastructure projects. Inspite of this it is felt that there are still some gaps to be filled in this highly professional field of consultancy services and realising the importance of development of expertise to meet the national objectives, priority has been given to development of consulting engineering organisations in the five-year development plan. It is felt that capacities and capabilities exist to a large extent but proper stress had to be paid on organisation and development of their complimentarities would to some extent reduce the dependence on foreign inputs. In the past, concerted efforts have not been made in this direction and realising the importance of this often neglected profession greater emphasis will be laid to achieve self-reliance in this field which would not only reduce the foreign exchange expenditure involved on consultancy services but would give boost to indigenous equipment manufacture because the foreign consultants tend to recommend imported equipment for the development projects inspite of the fact that capacities and capabilities exist in the country for manufacture of such equipment.

In the case of bilateral projects, the proposals are initiated by them for the consideration of friendly countries. The acceptance of detailed terms and conditions offered by the friendly countries depends on the sophistication of the projects but generally they do not agree for changes in conceptual framework of the project proposed by them unitl

and unless it is justified on technical grounds and it is felt that such solutions would be to their ultimate advantage. The content of foreign technical inputs varies from project to project and would be minimal for projects like manufacture of bricks and flour mill whereas would be more for petrochemical projects. The implementation of the projects is carried out on agreed terms and conditions and it is ensured that local professionals participate to the maximum possible extent so that the import content is considerably reduced in the project under consideration and if the same project has to be implemented at future date full use is made of the knowledge acquired by the local professionals by virtue of skills acquired by participation in the project implementation and expertise developed due to the opportunity afforded to the local professionals of on-the-job training.

Once the decision to implement the project has been taken and the same has been included in the plan, steps are taken for arranging the finances for the project implementation. National Bank for Credit, Exterior Bank, Popular Credit Bank and Algerian Development Bank etc are the institutions which provide finances for the industrial projects. Algerian Development Bank plays main role in financing the various development projects and can either fully finance a project with the help of other local banks or can partially finance a project. In case, the financial requirements of a project are met partially by the local financial institutions, the implementing organisation (e.g. Sonitex for textile projects) can initiate discussions with foreign agencies for financing but normally such financing is routed through the National Bank for Credit and the same is arranged from the country supplying the equipment or know-how.

The officials expressed their keen interest in the establishment of the Centre as it would be an instrument for promoting the projects in Africa.

2.12 EGYPT

Discussions were held with Mr. Shams El Din of UNDP regarding the establishment of the proposed Centre for rendering consulting engineering and industrial management services to the various African countries. He mentioned that the Industrial Development Fund could be one of the sources for meeting the financial committments of the Centre.

Mr. Shams El Din was of the view point that the Engineering and Industrial Design Development Centre (EIDDC) which was established about 12 years ago is at present geared up to render consultancy services and undertake comprehensive training programmes not only for local needs but also for the benefit of other countries. There is an existing Egypt Fund for technical assistance amounting to 2 million Egyptian pounds for training Egyptians and the personnel from other countries. He further added that capacities and capabilities are available within Africa for rendering a wide variety of consulting engineering services but there are certain problems to which the proposed Centre must pay adequate attention in order to make it effective. These are:

1. Centre must evolve ways and means to establish the credibility of local consulting engineering and management services;

2. There is a tendency to engage foreign consultants inspite of the fact that such services can be rendered by local consultancy organisations. The Centre must evolve ways and means to ensure that foreign consultants are engaged on a selective basis for rendering services in case such services are not available indigeneously;

3. Large imports of capital equipment have resulted in requirements of heavy inventory of spare parts to keep the plants running and even then some of the plants are not being utilized to their optimum capacity due to non-availability of certain vital spare parts as manufacture of such parts

has been stopped in developed countries due to arrival of more sophisticated equipment in the markets. The proposed Centre must pay adequate attention to the indigenization of spare parts and must evolve strategies to solve this major problem. In this respect the example of India could be followed with advantage.

He emphasised the need of establishment of the proposed Centre and opined that there should be linkages between the Centre on one hand and the Industrial Development Fund and the African Development Fund on the other. He was of the opinion that the Centre should become operative with nuclei of staff and said that it may be called by another name instead of calling it a Centre because the Centre does not convey the purpose of the proposed organisation.

Engineering and Industrial Design Development Centre

Discussions were held with Dr. Yusuf Mazhar and Eng. Samir El-Sayed of Engineering and Industrial Design Development Centre, regarding the planning process and the steps involved for execution of industrial projects. The national plan is formulated keeping the objectives of the country into consideration. Within the framework of national plan, industrial development plan is given shape and the investments in various sectors like agriculture, industry, infrastructure, education, etc. are proportioned. General Organisation for Industrialization (GOFI) is charged with the responsibility of identifying individual investments and puts down the plan details for public sector projects in a comprehensive manner and also the details for private investments although not in so much depth. The proposals for joint sector investments are handled by GOFI which makes sure that the envisaged projects are in the larger interest of the national development and the establishment of same is justified not only for techno-economic considerations but also from the socio-economic policies.

The prefeasibility and feasibility studies are then carried out by local consultancy organisations or foreign organisations jointly, depending upon the complexity of the project, e.g. feasibility study for a talcum powder project or textile project may be carried out by local consultants whereas the same for a polyester plant may be entrusted to foreign consultants with the participation of local professionals to gain on-the-job experience. The market studies are normally carried out by the local consultancy organisations as expertise for such studies is available and the local professionals are better placed to carry out these in view of the fact that they are more conversant with the local environments and conditions. The project authorities then locate the source for technology and the license for manufacture of products and process engineering is obtained from the foreign counterpart in case of complicated projects like transformers or motors and for simpler projects like washing machine, etc. the know-how is provided by EIDDC in collaboration with GOFI. The proposal for obtaining outside license and process know how is scrutinized by the Ministry of Industry (GOFI) and EIDDC and an effort is made to convince them to obtain the same from local resources if the same is available to avoid unnecessary foreign exchange expenditure.

Generally speaking the capacities for carrying out detailed civil designs are available from indigeneous resources along with work connected with erection and commissioning of utilities and services, equipment, main plant and equipment etc. The specialized inputs required for erection, installation and commissioning of imported equipment is inducted from the foreigners depending upon the specific requirements of the project.

The ratio of investments in public sector to private sector is around 70:30 at present and the trend is now more towards private sector investments. Until recently the Ministry of Finance was charged with the financing of the project but National Development Bank now deals with the

problems of financing for public sector projects whereas the private entrepreneurs have to deal with local banks, local development bank or foreign banks for financing of the projects.

The fees charged by the consultants vary from project to project depending upon the complexity of the project and the level of consultants required to undertake the assignment. On an average the consultants from developed countries charge around $600 per day plus daily allowance whereas the local consultants are paid around $200 per day. The consultants' fees for civil engineering works vary from 4% to 10% depending upon the investment and the complexity of the work. It may be pointed out that a lot of work in the field of construction and market studies, etc. has been taken up by Egyptians in other countries specially in the various Arab countries.

EIDDC encompasses a wide variety of activities as follows:

1. Industrial product design and development including consumer goods, transportation equipment, machinery, etc.
2. Capital goods equipment design including heavy equipment, material handling equipment, etc.
3. Production technology and tool design including press tools, plastic moulds;
4. Process design;
5. Mechanical workshops, portotype and tool manufacture;
6. Heat treatment workshop and mechanical laboratories
7. Training department
8. Optimisation and plant layout department

The plant layout division has been in existence for over 10 years and has handled a wide variety of jobs relating to selection of plant and equipment, evolving details, lay out designs including design of material handling systems for workshops, foundries, sheet metal shops and other engineering industries. They have rendered consultancy services for over 25 projects within a span of 10 years. Most of the engineering industries have over the years carried out expansion programmes and thus the layouts are not the ideal ones if the same were established now using the latest innovations in layouts and materials handling system. EIDDC is equipped to carry out the modifications in existing engineering plants in order to optimize the investments by relocating the equipment and addition of balancing equipment. It also carried out studies and detailed engineering work to introduce new product lines in case the demand for existing products has reduced to the market changes or the product having become obsolete due to introduction of more sophisticated products. EIDDC does not render services relating to product engineering and production processes and the same has to be acquired by the project authorities from other sources. However, they render services relating to selection of equipment, evolving detailed layout, preparation of equipment specifications and tender papers and the services relating to procurement of equipment. They also carry out detailed engineering work relating to design of utilities and services.

An effort has been made to standardize the products and the same are produced according to DIN standards or ISO standards whereas not much work has been done regarding the standardization of capital equipment and a variety of equipment conforming to various standards are being used in Egypt.

There is a proposal to establish a large consulting engineering firm to render consulting engineering and industrial management services for variety of projects and as such EIDDC is not entering new fields for rendering such

services. Another organisation, viz, ENPPT has made a start in the design of petroleum and petrochemicals sector.

EIDDC officials were very enthusiastic about the establishment of a centre and felt that it would be advantageous to have close interlinkages between the proposed Centre and EIDDC to the mutual advantage of both the organisations and development of consulting profession in Africa.

General Organisation for Industrialization (GOFI)

The following officials from General Organisation for Industrialization (GOFI) participated in the meeting:

1. Eng. Abdel Moneim El-Mehelmy, Director
   Central Administration for Technical Affairs GOFI

2. Eng. Shawky El Nahah, Director
   Central Administration for Industrial Planning

The aims and objectives of the proposed Centre for rendering consulting engineering and industrial management services for African countries was explained in depth. GOFI explained their functions and the role played by them in the formulation of plans and industrial development of the country. The functions of GOFI are given below. It would be observed from the functions that GOFI plays a very vital role in formulation of industrial plans and ensuring implementation of the plan policies. There are a number of consultants whose services are being used by GOFI and they also render consultancy services for other projects. The list of consultants along with the works carried out may be obtained from GOFI and it also lists out some of the consultants registered at GOFI. It would be observed from these lists that the local consultancy organisations have developed a fair amount of capacities and capabilities to render consulting engineering and industrial management services in the various fields. Consultants from foreign countries are engaged on a selective basis for filling in the gaps where capacities and capabilities do not exist with local organisations.

The officials were very enthusiastic about the establishment of the proposed Centre. They were of the opinion that there should be equitable distribution of the centres in Africa and all the centres should not be concentrated at one place. They further added that in view of the strong base of consulting engineering and management services developed in Egypt, it would be appropriate if the Centre is located in Cairo. However, they promised that they would give full support to the establishment of the Centre even if it is not located in Cairo.

The General Organisation for Industrialization (GOFI) was established in 1958 as a government agency belonging to the Ministry of Industry and Mineral Resources. GOFI is managed by a Board of Directors, the Chairman of which is the Minister of Industry and Mineral Resources. The Deputy Chairman manages and directs the day to day executive functions of GOFI.

GOFI employs 1300 persons out of which 800 are engineers, technicians and commercial staff.

The role of GOFI is presently confined to the following main functions:

1. Formulation of industrial development plans and defining Industrialization policies, to serve the public and private Egyptian sectors, as well as the Joint Venture Sector.
2. Collecting data concerning industrial production and assistance in the dissemination of information on technical and technological innovations and know-how.
3. Examining the most efficient utilization of new and existing industrial capacities and assistance in solving technical and technological problems.
4. Identification of investment opportunities based on available local and natural resources.
5. Carrying out pre-investment and feasibility studies of industrial projects.

6. Participation in negotiating and concluding agreements on technical and economic co-operation and obtaining external financing for industrial development with international organisations, foreign governments and private enterprises.

7. Studying applications submitted by Arab and Foreign investors to the General Authority for Arab and foreign investment and Free Zones for establishment of industrial Joint Ventures and giving recommendations as regards the viability of the proposals within Egypt's social and economic targets.

8. Examining applications submitted to the Ministry of Industry for obtaining of licenses for establishing or expanding national industrial private enterprises. GOFI's recommendations are given in the light of certain consideration of the internal economic situation and the need of local consumption and exports.

9. Participation, with concerned companies, in preparing specifications and general terms of tendering and in the conclusion of contracts for delivery of machinery, equipment, accessories and spares as well as know-how and technical assistance for the establishment, renewal or expansion of industrial projects to ensure the most favourable contract terms.

10. Follow up of implementation of industrial projects.

11. Promoting local manufacture of machinery and equipment through control of import requests to exclude items for which established local industries can serve the same purpose.

12. Promotion of industrial design in the mechanical, electrical and electronic fields through two specialized Centres serving the above activities.

The following industrial activities are presently controlled by the Ministry of Industry and Mineral Resources.

(a) Extractive Industries

Coal extraction;

Extraction of minerals, ferrous and nonferrous;

Extraction and quarrying of other minerals, stones gravel, sand marble, phosphate, sulphur, salt gypsum .....etc.

(b) Manufacturing Industries

Foodstuff, beverages and tobacco industries*

Textile, garment and leather industries

Wood and Wooden products industries;

Paper, paper products, printing and publishing industries**

Chemicals, chemical products, local, rubber and plastic industries ***

(c) Processing of nonferrous minerals industries excluding petroleum and coal products ****

(d) Basic metal industries*****

(e) Metal products, machinery and equipment industries******

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*Flour and rice mills and fishing activities are controlled by the Ministry of Supply

**Printing and publishing activities are controlled by the Ministry of Culture except for 2 industrial enterprises where printing is one of their several activities.

***Pharmaceuticals, drugs and medical equipment activities are controlled by the Ministry of Health, some chemical products activities are controlled by the Ministry of Military production.

****Cement and building materials activities are controlled by the Ministry of Housing & Rehabilitation except for glass and creamic which are controlled by Min. of Industry.

*****Some of the nonferrous metals activities are controlled by the Ministry of Military production.

******Transformers and electrical switchgear activities are controlled by the Min. of Electricity, telephone equipment activities are controlled by Min. of Communications; Some of the metal products e.g. sewing machines, fans and machine tools are controlled by Min. of Military production; Ship building and ship repair are partly controlled by both the Min. of Maritime Transport and the Suez Canal Authority.

Industrial Programme of the Ministry of Industry: CAIRO

The Ministry of Industry has altogether 351 projects in the 1980-1981 - 1984/1985 Economic Programme. The total value of the projects is LE8027 million.

The priority projects in the plan are as follows:

(a) The exploitation of Abu Tartour phosphate project in the Southern region of the Western Desert; New Valley. The project aimed to mine about 10 million tons annually of rock phosphate to be beneficiated into 7 million tons of concentrated phosphate rock out of which 6 million tons are intended for export and one million tons for local use.

The minimum proven reserves amount to about 1000 tons. Phosphate rock reserves represent the second economic mineral wealth of Egypt, with crude petroleum coming first and iron ore reserves third. The project comprises as major infrastructure projects foremost amongst which is a railway line linking the mines in the west to the Red Sea port of Sajaya in the East across a distance of 560 kms.

The capital investment on this project will be about LE.595 million with a foreign component of LE.312 million in 1979 cost prices.

Feasibility Study

The detailed feasibility study and appraisal work have been carried out by the following international consulting firms:

(i) Sofremines of France;

(ii) Alusuisse of Switzerland.

(a) The Consultant services of the office of Prof. Dr. Lachner of Germany and the Ministry of Industry prepared the engineering work of Sajaya port for the export of 6 million tons of phosphate concentrate;

(b) The consultant services of Central Technology of USA studied the railway from Abu Tartour to Sajaya;

(c) The Consultants Sofremines and Alusuisse identified the need for opening a pilot mine of a designed capacity of 100,000 tons per year.

Work in the pilot mine started in September 1977 and upto May 1979, some 600 tons of phosphate rock have been produced and transported to the phosphate fertilizer plant of Assuit, where it has been used without benefits in the production of super phosphate. Thus a full trial test on an industrial scale has been carried out. The result has been satisfactory and the final report is being prepared.

Project Number 2

A new Integrated Steel Complex at Dikheila (West of Alexandria).

This project will depend on imported high grade iron oxide pellets to be reduced into sponge iron by any naturl gas drawn from the nearby abkir Gasfield. the project was to produce 800,000 tons of finished wire rod and rebars for the Egyptian market. It will be served by the new first class port of Dikheila. It is planned to execute it as Joint Venture with the Japanese Nippon Kohon Co.and IFC.

High light of the Industrial Programme is to produce intermediate goods so as to reduce the imports of industrial intermediate goods, increase industrial exports and meet the expanding needs of manufacturing, petroleum, electricity and construction sub-sectors, and this contribute positively towards expanding and balancing the national economy.

Category A	Category B	Category C
Textile Food Projects	Metallurgy - Iron & Steel Chemical Mining Refractories for the execution of 90 projects being mainly local mineral resources, e.g. Iron ore, Phosphate rock, Manganese oxides, Quartiz, Quartzite, pure silica sand, Gypsum, Clays (bricks, refractories, ceramics) Eluinite, Black Sand, Salt, Coal and Caoline	Engineering, (mainly automotive and domestic appliances) Electronic Chemical (wood products, plastic, durable goods, types).

Egyptian International Centre for Agriculture

Mr. El Sayed Fahim, Director of the Centre has led an Egyptian Mission to promote Egyptian Agricultural Relations with the outside world, visiting 8 East and South East Asian countries. The mission had studied spheres of Agricultural training required by the Third World Countries.

2.13 ZIMBABWE

Summary of persons and organisations interviewed

The following persons and organisations were interviewed:

(a) Mr. Herbert Onitiri, Resident Representative, UNDP;

(b) Mr. Soren Tojo, UNIDO;

(c) Mr. Selwyn H. Evans,
Small Industries Advisory Service

(d) Brigadier John R. Prober, Chief Executive,
Zimbabwe Institute of Management

(e) Mr. A. F. S. Sheridan,
Institute for Business Development

(f) Mr. Keith Nicholson, Director and the Deputy Director
Associated Chambers of Commerce of Zimbabwe

Mr. Herbert Onitiri, Resident Representative UNDP

Zimbabwe sees its role in industrial development in five main directions, namely:

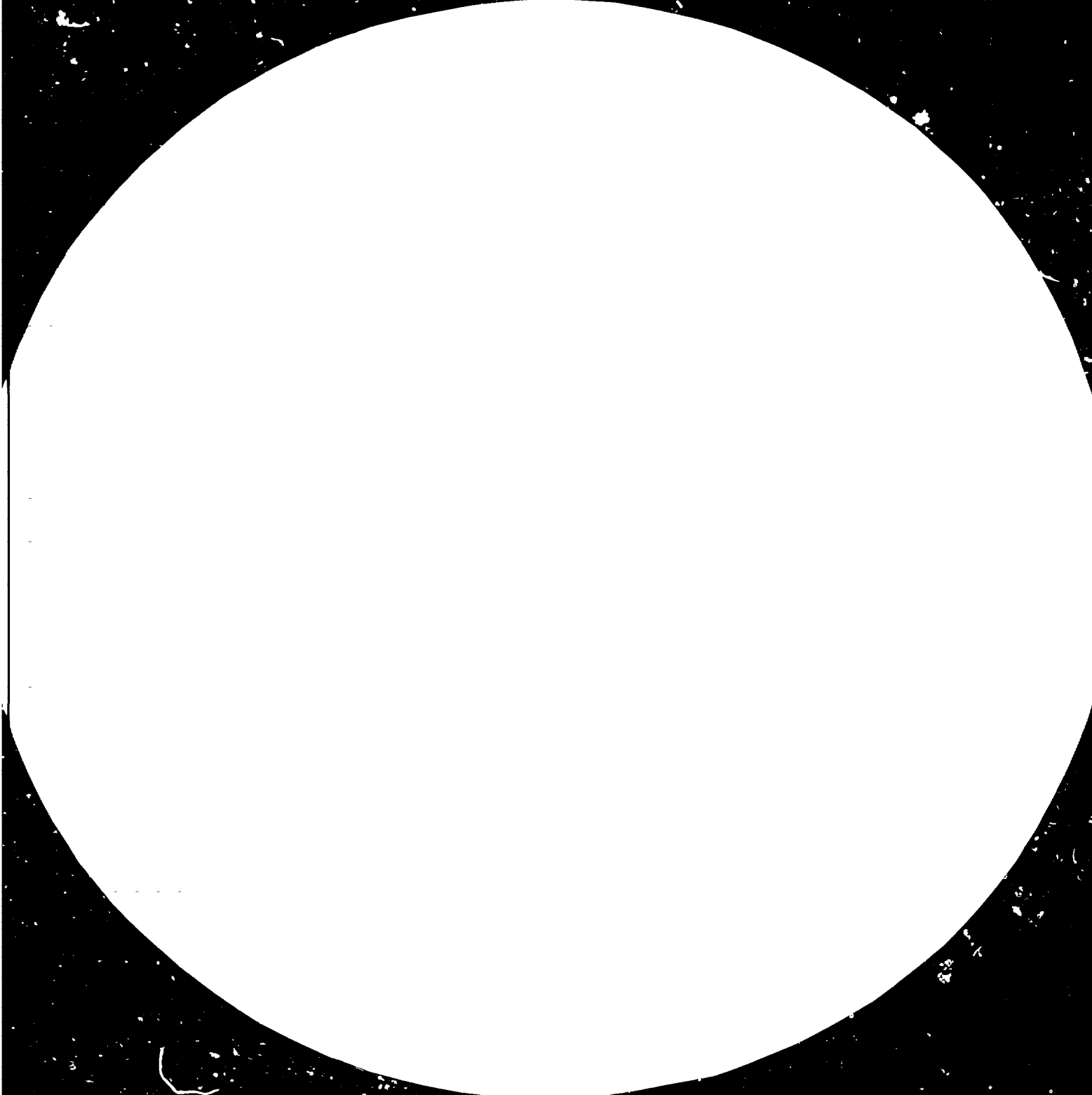
1. establishing a new role for industry within the framework of the new national economic and social order;

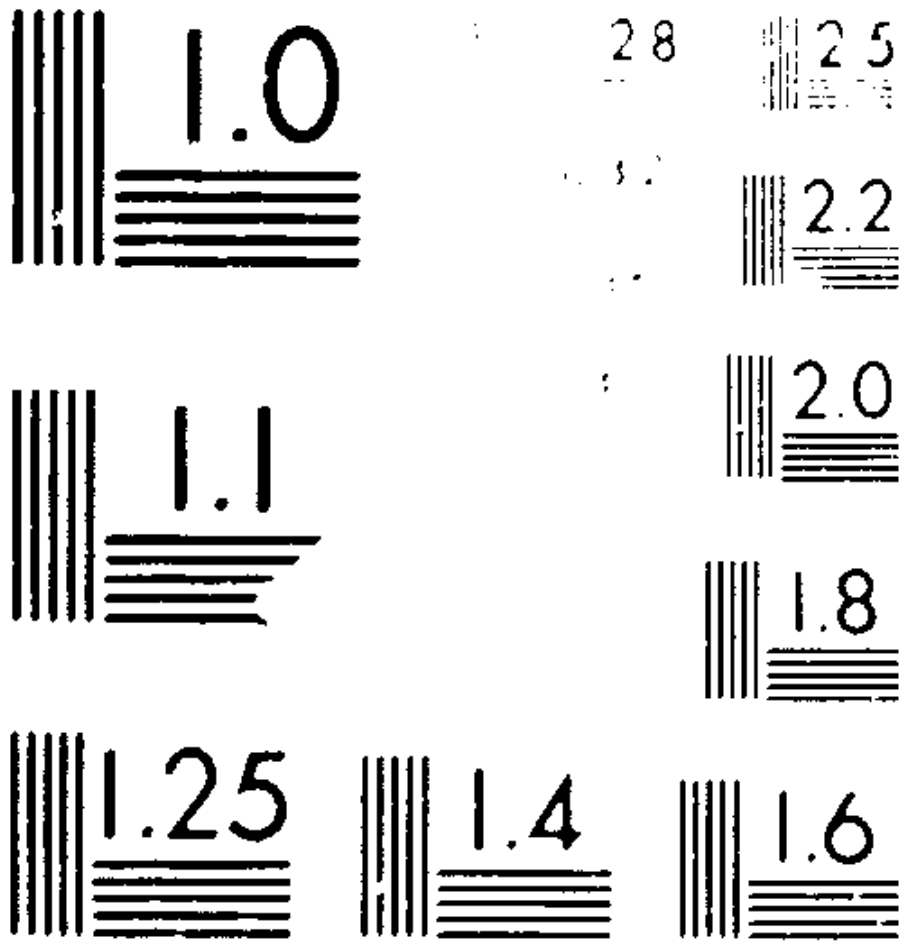
2. contributing to the implementation of sub-regional economic arrangements such as SADCC and the proposed Preferential Trade Area (PTA) of Eastern and Southern Africa;

3. playing a vital role in the implementation of the industrial objectives in the Lagos Plan of Action and most especially in the long-term objective of establishing an African Common Market by the year 2000;

4. contributing to the overall African effort to obtain a larger share of world industrial production within the framework of the Lima Development and

5. providing the professionalism and infrastructure to carry out the plan through training and a carefully worked out programme which brings together industrial enterprises and training institutions in a mutually beneficial co-operation relationship.

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To accomplish this Zimbabwe will have to expand on indigenous research capabilities, development of alternative energy resources, and adaptation of machinery to suit domestic requirements, develop the capability for material re-cycling, and obtaining a higher level of productivity.

Mr. Selwyn H. Evans, Small Industries Advisory Services

SIAS is not a profit organisation but rather works under grants from the government, AID and the UN. It does charge nominal fees to those individuals who can pay. At present the staff consists of 5 professional business consultants located in Salisbury and Bulawayo. There are plans to expand this greatly if funds can be obtained. Because of their case-load they do not actively solicit business. A funding allocation for two additional trainee consultants is forthcoming from UNDP.

SIAS works on the basis of enquiries. An "enquiry" is an approach to SIAS for assistance. Enquiries range from a need for brief guidance or information, to the complete organization or re-organisation of a business, which can take months. As an example, in the Fiscal Year 1979/80 there were 448 enquiries handled. The percentage of these enquiries can be analyzed as follows:

Type of Enquiry	No. of Enquiries	Percentage
Administration	83	18
Financial	142	31
Marketing	48	11
New business	130	29
Personnel	16	4
Production	7	2
Technical	22	5
	Total: 448	100

Given the staff, SIAS would gladly provide consultancy and industrial management throughout the country and to building up a reservoir of knowledge of management skills and techniques through training courses that are practical in nature and employ management game techniques, seminars that provide outstanding local talent as well as overseas lecturers, and publications ... such as magazines, bulletins and training documents.

Brigadier John R. Probert, Zimbabwe Institute of Management (ZIM)

ZIM maintains a management information centre and library with over 2000 books on various management subjects, an extensive film library, has a membership in excess of 2,500 individuals (with some 170 firms and organisations in collective membership) and is the founder member institute of the Association of Management Institutes. Additionally, ZIM maintains links with management organisations in other countries in Africa, America and Europe and works in close liaison with: Government Ministries (in particular the Ministry of Manpower Planning and Development), University of Zimbabwe, Salisbury Polytechnics, and Bulawayo Technical College.

ZIM is a non-profit organisation and is self-supporting on the basis of membership and subscription fees, fees charged for courses and seminars, and donations from private industry and has a full time staff of about 15 people. ZIM also sponsors examinations and tests of knowledge and experience of management theory and awards certificates to successful candidates.

Mr. A. P. Sheridan, Institute of Business Development

The aims of the IOBD are the expansion of the business community by the articulation of the needs of the small trader and development support geared to the necessities and problems of the small businessmen. The IOBD is supported by a grant-in-aid from the Ministry of Commerce and Industry and the business community. IOBD has a

current staff of seven people of which four can be classified in the professional consultant category. A plan has been submitted to Commerce and Industry to increase this number to 70 over the next 3 years: of the 70 approximately 50 will be professionals.

IOBD provides direct assistance for the small trader in management development; training programmes; consultancy services to analyse problems, provide advice, assistance and guidance, interpretation of business problems, and provide details of business opportunities, particulary in the Tribal Trust Lands and rural areas where demand outstrips supply.

Mr. Keith Nicholson, Director - Associated Chambers of Commerce of Zimbabwe

The purpose of ACCOZ is to promote the interests of businessmen on a local and national basis. In support of the promotion ACCOZ publishes a monthly magazine called COMMERCE. It also prepares a periodic Trade Enquiries Bulletin which deals with various aspects of trade, legislation, trade contacts, local and national exhibitions, employment sought and general business information.

General information

The Ministry of Manpower Planning and Development is currently conducting an extensive manpower survey and skills inventory of every employer and employee in the entire country: an analysis of the entire labour work force by job function. This survey will then be utilized to determine the availability of skills and what additional manpower skills will be required to support the National Development Plan. At this time it is estimated that there are approximately 500-600 professional engineers and about 40 chartered accountants.

2.14 TANZANIA*

Organisations and persons contacted

The following organisations and persons were contacted:

(a) Arusha

Arusha International Conference Centre
Mr. Cutinha

Regional Planning Office
Mr. Alan Johnston

SIDO- Regional Office
Mr. E. S. Ngatta
Mr. Mike Laiser

AID Project with Regional Planning Office
Development Alternatives Ins.
Mr. Charles Sweet

ESAMI, the Eastern and Southern African Management Institute:
Mr. J. J. Okumu
Mr. P. T. Achaye Were
Mr. J. M. Mukami
Mr. R. P. Joshi
Mr. T. S. Mwanyika

(b) Dar-es-Salaam

UNDP Office:
Mr. E. Ouattara, Resident Representative
Mr. S. K. Henein, Sidfa
Mr. Stone, Project Manager, TIRDO

Ministry of Industry

Mr. E. Hanti
Mr. El Kamuzora
Mr. W. M. Barongo

National Institute of Productivity
Mr. N. K. M. Mwambene

National Development Corporation
Mrs. Joyce Mpazi

IMS
Mr. V. C. Kumaran

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*The main purpose of the visit was the meeting with ESAMI, useful information was however also obtained from the other sources because of available spare time.

Consultancy activities identified

A total of 26 institutions carrying out industrial consultancy activities in Tanzania were identified. A breakdown of their activities results in the following:

	Man years of Consultancy in 1980
Feasibility and preinvestment activities	75
Construction engineering and investment implementation	75
Auditing, accounting and financial management	50
Industrial "Management" Consultancy	20
Other (real estate, regional planning, etc.)	30
Total man years	250

Expectations regarding the regional centre

Approximately 25 different suggestions were received regarding the services which would be expected from a regional centre of the type under preparation. They are reproduced in detail in the account of the 13 interviews reproduced below.

Grouped into broader categories, these suggestions comprise:

1. Information services of all types based on a multifaceted data base;

2. Co-ordination activities on a subregional and regional level in establishing consultancy consortia, organizing specialized training programmes and to mutually consult on the adoption or elaboration of common norms, standards, methods and strategies (for instance with regard to technology acquisition and dissemination);

3. Supporting activities to national institutes in providing specialized substantive support, identifying sources of finance and motivating and promoting national and subregional consultancy and management services.

The following accounts of the individual visits with practitioners of industrial consultancy and consultancy management as well as with competent government officials, give details on the on-going activities in Tanzania as well as the expectations regarding the potential function of the planned regional centre.

Detailed account of discussions

Visits in Arusha, Tanzania (20-30 June 1981)

Arusha International Conference Centre - Mr. Cutinha - 29.6.81

The Centre which has hosted a number of UNIDO Conferences, is a residual of the East African Community. Mr. Cutinha informed me that all relevant industrial consultancy activities in Tanzania were co-ordinated by the semi-governmental TISCO and that apart from the East African Management Centre, little substance related to industrial consultancy and management services was to be found in Arusha. He advised, however, to also see the Regional Commissioner's office, responsible for regional planning and development.

Regional Planning Office, Arusha Planning and Village Development Project (APVD) - Mr. Alan Johnston, Rural Development Adviser. 29.6.81

Mr. Johnston, who informed me about the large scale AID Project in Arusha mentioned also the newly founded OAU sponsored and FAO supported - "Centre for Integrated Rural Development" (CIRDAFRICA) for which the terms of reference had been recently established and to which a council of governers had been assigned.

Mr. Johnston mentioned a few minor consultancy activities carried out by professionals within the region (such as feasibility studies) and an Engineering and Architectural Firm (Milvers Associates) employing 3-4 professionals. The East African Management Institute was concerned with training - possibly exclusively. The only consultancy firm in industry was TISCO.

Mr. Johnston then referred to the 108 consultants employed by the Arusha based AID project until now, the majority expatriates but an important proportion also Tanzanian professionals for instance from the University of Dar-es-Salaam. Specifically he mentioned 3 studies which were recently executed by Tanzanian professionals on:

(i) The financial infrastructure (credit facilities) and its policy implications in the Arusha region;

(ii) Availability of building materials and fuel (5 years projections including distribution aspects);

(iii) Small-scale industries in the Arusha region.

Each study had been for 3 man-months costing a total of Sh.20,000-50,000 per study including transportation, per diem, research assistance ($4-6,000 at present exchange rate). In addition to these 108 consultants, there were 3-4 locally hired persons with long-term contracts and 10 long-term expatriate staff (2-3 year contracts). It appeared from the conversation, that a regional African centre of the type envisaged could have heavily increased the share of African professionals in this project which also points to the potential benefit the region can draw from an effective interlinkage between the regional centre and national technical co-operation activities in identifying African expertise.

Asked about the criteria of using expatriates rather than local staff in many of the assignments - for instance

an expert on local revenue generation from a Turkish University or a demographer like himself he considered that unavailability of the respective expertise in the country was not always the main reason. Often, there were competent professionals in the country but not available for work in the specific project because of other commitments, which was for instance true for the 3 Tanzanian demographers of known professional competence.

Regarding regional coordination there should be an inventory of African technical expertise, the Centre should provide expertise in feasibility studies indicating the competent persons or institutes and having the operational ability to arrange and carry out such studies. It should also have a reviewing capacity to assess existing studies. It was important, that professional competence based on performance and not existing linkages between national consultants and government was used by a co-ordinating centre in recommending specific persons or firms for specific assignments.

SIDO - Regional Office

Messrs. E. S. Ngatta, Senior Small Industries Promotion Officer and Mike Laiser, Senior Economist - 29.6.81

The discussion not only covered the attitude of both professionals with regard to the African Regional Centre but switched back and forth between the potential function of this Centre and those of UNIDO. Although both persons consider themselves grass-root professionals, their thoughts showed in-depth industrial development in the Arusha region, their thoughts showed understanding of what "in theory" would be need to help them, either on an international or on a regional scale.

(a) Appropriate Technology

An inventory of appropriate technologies should be available for orientation of individual countries permitting them to more easily assess the availability of their own projects and to identify problem solutions, based on the experiences in other countries. Simple methods to mine and purify salt, to build

wooden carts, etc. should be described in handbooks derived from experiences elsewhere. Project appraisal was one of the main difficulties encountered.

(b) Technology or sector specific training courses should be offered on a regional basis for small-scale industries (for instance for hides and skin processing industries). Also specific types of managerial or consultancy techniques should be offered in a more or less standardized form (for instance financial management, investment promotion). Specific training manuals should be available for each.

(c) African resources should be assessed (for instance nuts for oil production, the already mentioned salt deposits) to accelerate their industrial utilization.

The institutional framework for the African Regional Centre was then brought up and the way this would interlink with local programmes. It was felt that the Centre should act as an adviser to national organisations and the question arose whether it would link up with government offices, or institutions dealing with industrial development (for the smooth functioning of the African Regional Centre, direct connexions with the national organisations to be served by the Centre, - instead of channelling all contacts through an administrative machinery - might well be advisable). It was noted with regret, that there was too much duplication world-wide and regional co-ordination may help to reduce this.

Regarding SIDO's own role, I was told that its first function was to link local entrepreneurs and investors, to "shop" for the respective technology, prepare the feasibility studies and cashflow analysis in co-operation between an engineer and an accountant (in this respect a need for competent marketing assessment was expressed), assist in the marketing effort (for instance in preparing participation in the Tanzanian international/trade fair) etc. Finally SIDO carried out diagnoses of enterprises to bring sick units to normal operation again.

We were finally advised to see in Dar-es-Salaam Mr. B. P. Mramba, Minister of Industries, Mr. Toroka, Director General of SIDO and TISCO.

Discussion with Mr. Charles Sweet, Founder and Director, Development Alternatives, Inc., 1823 Jefferson Place, N.W., Washington DC 20036

This company employs 200 professionals and presently works in 40 developing countries. 80-90% of the staff are US citizens. Its operations in Africa have been in the following countries: Ghana, Nigeria, Niger, Sierra Leone, Liberia, Zaire, Upper Volta, Sudan, Egypt, Kenya, Tanzania, Botswana and Leshoto. Its main areas cover:

Regional planning
Feasibility Studies
Rural development and project implementation (including agriculture, roads)
Development research
Project evaluation

Fees* vary between $150-400 per working day plus travel. The total cost per short term consultants works out at $12,000 per month, for long term consultants at $75,000 per year.

The Arusha Project (see interview with Mr. A. Johnston) differes from other regional projects in its approach. All activities have been carried out in narrow cooperation between the Aid team and the government officials who have approved each of the short term consultants and participated in the supervision of all the assignments (in other regions,

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* Fees are caluclated as follows: Base salary (18-65,000) divided by 220 working days plus 94% for all overhead costs, plus 7.5% profit calculated on the total. Travel and per diem are calculated at cost using US Government rates ($18,000 is for an M.A. with languages and 3 years experience in developing countries). There was also a staff of part time professionals working with the company (4,6 or 9 months per year) who had a guarantee income during this time and who were billed out at cost plus 10%. It was a general rule that the staff should speak the local language as was the case in Arusha where all team members speak Swahili.

very extensive high quality reports had been prepared on a more or less turnkey basis - with little or no local involvement). Mr. Sweet measures the success of the project by the amount of additional investment attracted to the region which he believes will be in the order of US$30-35 million by the end of this year.

The company appears to have some co-ordination and exchange of information between various projects although there is no firmly institutionalized exchange of feasibility studies, etc. A large amount of material is however published and a monthly newsletter summarized in 8-9 pages what is done in the various countries served.

When discussing this point, Mr. Sweet also mentioned the procurement function of his firm, which provided procurement services for $3-4 million worth of equipment each year. He considered that one of the major tasks was to develop the countries procurement capabilities, i.e. linkages with suppliers, markets and internal systems (including warehousing etc.) Regarding the activities of the African Regional Centre he considered that there was a requirement for strengthening individual countries through regional supporting services in the following areas:

- Pre-feasibility - there should be a roster of available feasibility studies, the subsequent experience and the people having the respective expertise to make the screeing process faster;

- Financial linkages - there should be a regional capacity to provide linkage between countries (entrepreneurs) and financial sources (i.e. available multi or bilateral donors etc). This should include an analysis of their various criteria for decision making and their standards for project presentation. Also the interests of each of the various institutions should be listed; small scale enterprises should be shown how to mobilize funds. A regional centre could charge a fee on the funds mobilized.

- Managerial and business administrative training - There was a need for a mobile training capability which could be filled by a regional centre which would first carry out the training courses and then build a training capacity in each of the countries by developing trainees and by providing training models.

- National Policy Programmes - Finally, there should be a regional capacity to advise countries on national policy formulation. The project Mr. Sweet was managing - in line with the company's policy that each of its executives must have 3 years experience - had organized a training programme for district officials in this respect with the result that all of these now speak a common language in relation to these issues.

Mr. Sweet considered, any regional centre should be set up to be comercially viable, charging sufficient over-heads to cover all costs and to permit expansion. Cheapness was seen as negative also in Africa.

ESAMI, the Eastern and Southern Africa Management Institute - Discussions with Prof. J. J. Okumu, Director, J. M. Mukami*, Registrar, Tobias S. Mwanyika, Consultant Management Accounting, P. T. Aichayo Were, Consultant and Transport Engineering and R. P. Joshi*, Head Management Science Division* _ 30.6.81

Prof. Okumu displayed a keen interest in the preparatory activities for the regional centre and said he would send a paper describing the role ESAMI could play in this connexion. He gave a brief history of the institute as follows:-

ESAMI was founded at the end of 1975 with the objectives to achieve performance improvement within the three associated countries of the ECA (Kenya, Tanzania, Uganda) through the introduction of more efficient technologies and techniques

* The persons marked with an asterisk were also met individually for detailed discussion.

and through the enhancement of internal consultancy capacities of ministries and capacity improvement of national institutes. It was originally bestowed with 8 million* shillings from DANIDO and 4 million shillings from member governments who contributed annually shilling 500,000 each during the years 1975-80. In 1977 the ECA broke apart and it was decided that from 1978 onwards most of the income should be self generated by the institute. This principle was maintained although the community of member States was increased to 18. The institute today covers 91% of its operational expenses from its services although there has been an increase in the contributions by each of the three founding governments to Sh.750,000 per year from 1981 onwards and an addition of 3 contributing members i.e. The Comoros, Djibouti and Zambia.

The institute competes favourably with multinational and foreign based firms. Tution is shillings 1,500 per week plus shillings 250-300 for room and board per day. Outside courses are given twice per year (once in the Southern and once in the northern region). These are generally more costly and training in Arusha is preferred although due to the addition of many new countries, the facilities will soon have to be expanded by 80 rooms adding to the 125 existing rooms. Consultancy fees are also lower than those asked by international firms i.e. approximately one half. Arthur D. Little which had quoted $12,000 to 15,000 per man-month a year ago had now raised its tariff to $18,000.

The proportion of the various activities of this institute had been heavily biased in the direction of training. In 1978 income derived from training amounted to 90% of all self generated income. In 1981 this proportion will be only 65% in line with an earlier decision to stabilize the final proportions as follows: 55% training, 35% consultancy and 10% research.

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*1 shilling = US$ - .125

Consultancy activities

Efforts had been made by affiliated governments to increase the African share in national consultancy activities but these were met with the natural constraints that for instance in Zambia, only one indigenous consultancy firm existed. To train local consultants devising the respective programmes was therefore seen by ESAMI as an important activity and a number of courses have been organized for this prupose. It was still difficult however to get sufficient participants for these courses (whereas for other subjects there appears to be a demand much in excess of available resources). Most of ESAMI's own consultancy activities were in Tanzania, all in the public sector, some in Kenya and very little in Uganda. The type of consultancy offered was however, more management oriented. When construction engineering was asked for, the respective engineers were especially recruited for the required purpose.

Training

Of the 30 training programmes, 4-5 were specifically designed for industry and many of the others also apply to industry. Thus 200 small scale entrepreneurs were trained in co-operation with SIDO. In this connection ESAMI had also approached the small-scale industries institute in Washington. Small entrepreneurs need training most but too little was offered. Much of the training went to parastatals with good results. Often decision makers requested follow up consultancy assistance and ESAMI habitually also made follow-up visits to course participants - generating consultancy work in assisting the participants to overcome institutional constraints to the implementation of their newly acquired skills and ideas. General training was often also followed up by specialized training by many participants, ECOWAS had studied the ESAMI programme including its costing and fees arrangements and was building up a bilingual training programme in line with the ESAMI model.

Mr. Joshi considered that basic Management training would be the same for industry, banking, agriculture and education but that industrial management was more quantitative and productivity oriented. ESAMI had a special four weeks production management course. There was a course on information systems, on data processing and programming, a 6 weeks course on systems analysis and design, but also a health management programme (primary health care). Details on all these programmes are contained in brochures handed over to me.

Mr. Joshi finally pointed out to me that immediate requirement for a 4 months expert on corporate industrial managemen and on production management. He was interested in SIS assistance in these fields and in all UNIDO material on management consultancy. The respective action has been taken.

Finally Mr. Joshi stated that in his view secondments between regional centres and international organisations (or national institutions) would enhance the quality of the activities of the persons and institutions involved.

Discussion in Dar-es-Salaam 1- July 1-2, 1981

Meeting with Mr. D. Ouattara, resident representative. Mr. S. K. Henein introduced me to Mr. Ouattara whom I briefed on the purpose of my mission (1.7.81).

Mr. Ouattara who comes from Mali was asked regarding the potential institutions and host countries for a sub-regional centre in the Arab region mentioned Algeria, Tunis and Egypt in that order. Although he could not recommend any specific institution in Algeria, he felt had a sufficient industrial base. In Tunis he mentioned UNITAR; then also the CEIM, Centre d'Etudes Industrielles du Maghreb was introduced into the discussion (Tangiers, Maroc). Although Egypt had a considerable industrial base, it was nearer the Eastern Africa area and was therefore less suitable as it would geographically bias the distribution of subregional centres if such was the recommendation too much in favour of the East of the continent.

Regarding the East itself and potentially the entire region, he considered ESAMI (Arusha) would be a good base for such a Centre. As the conversation also touched upon the terms of reference for such a Centre, I brought it as an example and in line with the course of the discussions, the possibility for such a Centre to maintain a roster of all feasibility studies prepared and accessible in Africa which coincided with the opinion of Mr. Ouattara.

Discussions with Mr. E. Hanti, Chief of Manpower Development, Ministry of Industry (1.7.81). Mr. Hanti whom I saw in company of Mr. Henein was asked about industrial consultancy activities and he listed the following institutions:

(a) I.M.S., Industrial Management Services, headed by Mr. Kumaran, a private company serving mainly the (12) companies belonging to its own trust. The company not only carried out feasibility studies but also what was referred to as viability i.e. implementation of projects including the procurement of financial resources.

(b) I.P.S. headed by Mr. Aziz whom he recommended we should meet. The company had carried out 60 consultancy assignments during the last year. Both companies, Mr. Hanti said, did not supply figures on their staff or activities.

(c) TISCO, this government organisation employs 50 professionals of which 14 are (Swedish, SIDA) expatriates. It was active in all consultancy fields but started on feasibility studies and investment activities over which it has control because of a law requiring all companies to be established to submit feasibility studies to TISCO for approval. Much of TISCO's studies centred on food products, textiles and chemicals. TISCO provides houses and transport for its staff. Its chairman had been previously with the Ministry. TISCO's task was in fact huge as there are 300 industries/companies in the area of Dar-es-Salaam alone and the organisation could only accept 20% of the work requested from it. Some private companies

were among those looking for TISCO's consultancy services which were in all cases provided against payment of a moderate fee.

Other Institutions:

Other institutions providing consultancy services were:

(d) TIRDO - the Industrial Research and Development Organisation;
(e) The Tanzanian Institute of Standards; and
(f) The University of Dar-es-Salaam

Partly in line with his own priorities, Mr. Hanti considered an African Regional Centre should carry out all types of (technical and economic) research and training. He mentioned the UNIDO sponsored co-operation between TISCO and the regional centre in Arusha ESAMI and his own efforts to identify training institutions in Algeria, Egypt, Sudan and Nigeria.

Discussion with Messrs. Stone, project manager assigned to the Tanzanian Industrial Research and Development Organisation TIRDO, Mr. S. K. Henein and Ms. Nilsson-Dag, J.P.O. (1.7.81). Mr. Stone who had been in Tanzania only one year was still faced with some of the start-up difficulties of his project (housing, staffing - he mentioned the difficulty to find maintenance and process engineers) contributed mainly in giving some information on on-going consultancy activities in Tanzania and the potential for regional activities as he perceived them. Mr. Henein and Ms. Nilsson-Dag also contributed their views and below is an amalgamated account of this informal brain storming exercise.

(a) Terms of reference of a Regional Centre

The following four major areas of activities were found to be suitable for a regional centre:

(i) Information:

- Although even some national institutions do not provide the small information variety of

services to industry - preferring duly paid formalized project services, Mr. Stone considered such services a necessity. He mentioned however the requirement for governments to be aware of their respective needs if one wants to obtain the interest and support for a regional information service which might cover:

- national resources (still underutilized in many countries like clay, sodium silicon and other minerals in Tanzania)

- know-how (exchange of know how was discussed at a recent meeting of the 18 Eastern and Southern African countries but action was still pending. The EAC failure was still too much present and the property question of the community was still unresolved)

- markets for industrial products (to provide realistic assessments for market chances of excess production)

- feasibility studies and companies

- supplies of equipment and know how

- cost of transportation, communication, tariffs

It is obvious that some of the information may also be available in other regional centres like the Technology Centre in Dakar. An information service of the regional centre should however store and have access to the available information within the region. Typical "client" organisations for this type of service would be the IRSI like TIRDO.

(ii) Co-ordination: Through mutual consultation and the organisation of seminars the development of consultancy should be enhanced, the negotiation and finalization of agreements as well as the legal aspects should be studied in depth. Another role would be the identification and execution of regional scale projects.

(iii) Involvement of local consultancy organisations: could be also enhanced by rotating personnel from the national to the regional (or subregional) institutions. This would have to be done according to fixed time schedules to avoid permanent fixtures. Training itself - it was felt - would be a minor function of the centre.

(iv) Credibility enhancement: Apart from establishing its own credibility, the centre could serve to support national institutions in this respect.

(b) Institutional aspects

Mr Stone suggested the ministries of finance and treasury should be involved in the centre's activites, which should for instance submit its reports to these bodies prior to publication. The governing council should be on the ministerial level. One national institute should be the focal point in each case. Sufficient support should come from UNIDO in the beginning as is the case with the new regional centre Cirdafrica (rural development) supported by FAO.

Meeting with Mr. El Kamuzoru, TISCO (present also Messrs. Henein and Erickson) later also Mr. W. M. Barongo, civil engineer (2.7.81). Mr. Kamuzora informed that TISCO was working mostly on preinvestment studies but had not done design or construction work in implementing investments. Of its activities 90% were devoted to the public sector and with the exception of some branches (as presently the wood industries section where there was a temporary halt after the termination of a larger scale project) all staff

members were more than busy. TISCO's fees were US$6,000 to 7,500 per month, half of what had to be paid for international expertise where tariffs between $12,500 and 15,000 were common (in each case plus travel and other costs). Outside expertise was required - as recently in the case of power alcohol, when one wanted to have direct access to the state of the art in a specialized field. TISCO had its contacts in Europe and India for such cases and was practically able to bid on all assignments in Tanzania industry.

The consultancy market in Tanzania had been estimated in 1977 to be equivalent to 250 professional man/year in new investment consultancy alone (taking 5% of the total investment as an index figure for consultancy service requirements). In addition to this would have come the day to day consultancy for operational costs including trouble shooting. Now the demand was likely to be higher because of the increased complexity of problems. Definitely more than half of all consultancy would be construction engineering, second accounting (30%). This seems to correspond to a general pattern.

Regarding the terms of reference for a regional centre, Mr. Kamuzora emphasised information services of such a centre, particularly with regard to technology. There should be a sound data base with processes used, sources of equipment, and know how supply and experts in the specific technology. Experts from Africa and on Africa, inside and outside the continent should be listed and TISCO could contribute its own roster to this data bank. Issuing a quarterly on ongoing activities within the region would also be recommended.

Finally, it was thought the centre could play an important role in initiating consortia for implementing subregional industrial investment projects. Mr. Barongo, who was called in response to a question of Mr. Erickson on standards stated that there were in fact the British standards available for construction work, but they were not detailed enough. There were no comprehensive codes resulting in every engineer using his own judgement, often

over-designing for safety reasons, depending upon the plan and where training had been received. Most construction work was copied from elsewhere. Regarding institutions and location for a regional centre, the CEIM in Tangier was mentioned again and it was stressed that accessibility in terms of communication (airplane connections etc, telephone) was among the major criteria for locating such a centre.

Meeting with Mr. N. K. Mwambene, Managing Director, National Institute of Productivity (also present Mr. Erickson). Mr. Mwambene informed of the activities of the NPI which were mainly directed to the government. There were 34 professionals (no expatriates) of which 15 in training, 15 in consultancy and 4 in research. ILO had stopped its main support in 1979 and only some fellowships were still to go on until the end of 1981. The staff was well paid with the institute charging 1,200 shillings ($150) per man day. Of all income 75% was obtained through the selling of services - and an agressive marketing effort was being made to raise this sum to 85-86% this year the rest being government subsidized. 50% of the income comes from (investment related) consulting, 20-25% from organisation development and productivity studies and 15% from manpower development (training).

On consultancy in Tanzania, Mr. Mwabene referred to Mr. N. Mwaniki's paper for the ECA (1979) on the development of industrial consultancy organisations in Eastern and Southern Africa. He also referred to AESACO, the Association of Eastern and Southern African Consultancy Organisations established in January 1980. The ECA paper lists a number though not all of Tanzania's consulting groups giving number of professionals, their activities, the share of expatriates, etc. (IPS and IMS are missing.) The nine companies listed had among them a total of 148 consultants more than half of which (76) in TISCO and NIP. Coopers & Lybrand, an auditing and financial management firm and Massawe & Co. in the same field had together 24 financial specialists, of the remaining 48, another 29 were concerned with architecture

and construction engineering 14 with real estate, 3 with unspecified and only 2 (apart form those listed under NIP) were industrial consultants proper.

Reference was later also made by the SIDFA to the questionnaire fo. Management Consulting Firms. Accompanying Mr. P. Konz's letter of 16.1.80 the addresses given in answer to this were:

TISCO, P.O. Box 2650, DSM

NIP, P.O. Box 2021, DSM

Trans Africa Industrial Consultants (TAICO)
P.O. Box 5120, DSM.

Massawe & CO., P.O. Box 1109, Arusha

Sting-Back Ltd., P.O. Box 1109, Arusha

Coopers & Lybrand Asspe., P.O. Box 45, DSM

Missing in this list are for instance the IMS, IPS, Plan Ass (with 8 professional architects and engineers and 10 technicians, Afritim: (with 5 professionals and 6 technicians) Tanzania Property consultants (real estate, 14 professionals) as well as the three organisations mentioned by Mr. Hanti.

Discussion with Mrs. R. Lugembe, Director of Manpower Administration, Ministry of Industry (2.7.81) (also present Mr. Erickson). Mrs. Lugembe, who was not prepared for the meeting as we had been referred to her by mistake, promised to prepare background material on consultancy in Tanzania. She briefly mentioned the Council for Engineers and Architects, TISCO which she said was started by the ministry to foster consultancy in Tanzania, TIRDO, the Tanzanian Engineering Design and Manufacturing Organisation similar to the Regional Centre in Ibadan etc. She referred to the relatively short existence of the Ministry of Industry which had emerged from a split of the earlier Ministry of Industry and Commerce in 1975.

Interview with Mrs. Joyce Mpazi Group Training Manager, National Development Corporation (also present Mr. Erickson, 2.7.81). Mrs. Mpazi's concern was mainly with training which she felt should be prectice oriented with vists to companies, identification of problems, etc. She mentioned

ESAMI, IDM (Institute for the Development of Management IDF(Institute of Finance Management) doing a very limited amount of consultancy work all giving short term and long term (full time) courses and MEIDA, the Metal Engineering Industrial Development Association, which carried out problem oriented training in co-operation with Swedish SIDA, the Ministry of Industry and the NDC.

Industrial consultancy was not sufficiently practiced in Tanzania. TISCO concentrates on feasibility and project studies, the employers organisations were not staffed to carry out day to day consultancy work.

Regarding the contribution to be made by a regional centre, Mrs. Mpazi felt this should come out with a calender of training possibilities in Africa (Arthur D. Little, Manchester and Harvard were better known than the African facilities). It should develop tailor made programme for instance in maintenance management and above all, it should have a travelling consultancy staff, (for problem identification). In this latter respect, Mrs. Mpazi's suggestion corresponds to the practice of the AIDO in Baghdad.

Interview with Mr. V. C. Kumaran, IMS, Industrial Management Services (also present Mr. Erickson) (2.7.81). IMS is an internal consultancy organisation for a large group of companies covering a very broad range of products (e.g. 100% Tanzanian made batteries, (in co-operation with a Japanese firm) exhaust pipes and mufflers, soap (in co-operation with UNILEVER), filter elements, garments, rubber Coca Cola bottling, CO_2 manufacture, etc).

IMS employs 100 persons comprising architects, engineers, project co-ordinators, chartered accountants. It fully manages the implementation of projects including the choice of land, procurement of finance, construction installation, advise on recruitment of staff and preparatory training and motivation. Pre-feasibility activities as a basis for deciding on new projects, the decision-making process itself as well as the subsequent feasibility study

including a full sized PERT network are also part of IMS activities. Mr. Kumaran claims his company to be the only one in Tanzania using a computer (ICL 1700 series) and the only private company ever to have received an IPCT loan. In some cases IMS has carried out joint venture projects, in rare oppotrunities it has also worked for outsiders to the group such as the Zanzibar government where two turnkey plants were installed. The company has in earlier times also used TISCO services. Personal relations between the companies were very good, although there was presently no scheme for co-operation. TISCO had never used IMS' services.

Regarding the regional centre in question, Mr. Kumaran could see substantial advantages to be derived from it if it was built as a reference centre for information on markets, on-going industrial activities in relation to existing markets within the region, import statistics, advise on the feasibility of given projects, a register of on-going projects within the region, names of experts on specific know how (to train newcomers) and of persons or instituitons which could help in identifying financial resources. In Mr. Kumaran's view, the private sector should be represented in the board of such a regional centre, i.e. perhaps 30-40% of the boards members should come from that sector.

Mrs. Roz Lugembe, Director of Manpower Development and Administration of Ministry of Industries

Mr. A. Kanylili, Director, Metal and Engineering of the Ministry of Industries

Mr. E. Hanfi, Director of Manpower Development and Assessment, Ministry of Industries.

Would like to see national institutes strengthened instead of having another possibly competitive, group or centre in existence. If a centre is to be established it should have features applicable to both private, government and public businesses. Give advice on a full spectrum of business activities or know where such information is

available. Have a continental project reports register. Help obtain financing, develop internationally acceptable financial feasibility study standards that would be acceptable to and by lending instituitons. Have registration of professionals as one of its highest goals. Don't compete with local businessmen.

III. PRESENT ECONOMIC CONDITIONS IN THE COUNTRIES VISITED

3.1 Economic Overview of the countries visited

At the time of independence the level of economic development of the 15 countries visited (and 19 studied) was rather low; industry was an underdeveloped sector. In the 70s these countries witnessed a period of consolidation of progress made after independence thanks to the creation of more homogeneous States, more advanced intergrated national economics and measures aimed at strengthening inter-African links.

However, at the beginning of the 80s, it is observed that these countries have not been able to cope fully with the new international trends. Indeed the last decade has been marked by a series of economic disturbances, that is a noticeable slackening of growth in the developed countries coupled with high rates of inflation, a dramatic rise in the price of crude oil with its associated implication, particularly the deterrioration of the terms of trade of all oil importing developing countries which were also badly hit by the rise in price of imported capita goods and foodstuffs.

These factors have adversely affected all the economic sectors of the 15 countries visited, more particularly the per capita GNP.

Table 1: Population and per capita GNP of the 19 countries visited and/or studied

Countries	Population	Average Annual Growth per cent (1960-1978)	Per Capita GNP US$
Algeria	17,625,000	2.3	1,200
Botswana	747,000	n.a.	620
Burundi	4,463,000	2.2	140
Ivory Coast	7,863,000	2.5	840
Egypt	39,835,000	3.3	390
Ghana	11,000,000	-0.5	390
Ethiopia	30,982,000	1.5	120
Kenya	14.720.000	2.2	330
Morocco	18,900,000	2.5	670
Nigeria	80,563,000	3.6	560
Rwanda	4,508,000	1.4	180

Countries	Population	Average Annual Growth per cent (1960-1978)	Per Capita GNP US$
Senegal	5,380,000	-0.5	340
Sierra Leone	3,300,000	0.5	210
Sudan	17 376,000	0.1	320
Tanzania	16,900,000	2.7	230
Uganda	12,400,000	0.7	280
Zaire	26,770,000	1.1	210
Zambia	5,291,000	1.2	480
Zimbabwe	6,900,000	1.2	480

Source: Report on World Development - mid 1978 estimates

On the basis of the overall growth and per capita GNP growth during the decade it is possible to group the countries visited into the following three categories:

(a) In the countries engulfed in domestic squabbles or wars, or which were victims of natural disasters, such countries as Rwanda, Burundi, Egypt and Ethiopia, important sectors of the economy have deteriorated. To these countries should be added Zaire which during the greater part of the decade has had to grapple and is still grappling with a rising inflation, a shortage of imported goods, under-utilization of production capacity and various forms of depletion of national resources.

(b) The overall growth has been steady in the Ivory Coast, Algeria, Kenya, Tanzania, Morocco and Nigeria. This is mainly due to the export of such primary products as coffee, cocoa, timber and phosphates.

(c) A country like Sudan belongs to those who fall within the middle category, that is those countries whose long-term growth is marginal or poor, due at various degrees to a situation mainly determined by factors beyond their control, such as climatic hazards. However, with the discovery of oil in Sudan one can say with certainty that the country has a bright economic future as they anticipate being self-sustaining in petroleum which will eliminate a hard currency drain.

At the end of 1973 the efforts made at the beginning of the 70s began to slacken under the influence of external forces which adversely affected the terms of trade of the countries visited and studied.

The three factors that constitute the challenge of the 80s therefore are:

(a) financially weakened economics
(b) more unfavourable international trade, and
(c) growing repercussions of internal structural problems

In the countries under study it is observed that whereas these countries constitute a vast economic entity, no effort has been made to make an appropriate evaluation of the great potential they have. This potential lies first and foremost in such natural resources as agriculture, minerals and power. There are also vast areas of untapped human resources. The Governments of these countries and of other African countries are capable of making use of this potential particularly by creating incentives for small farmers instead of making radical agricultural reforms, by improving the productivity of the crops, which has proved useful, instead of introducing crops which, on the whole, have not been tested, by experimenting on small or medium-sized irrigation projects and on mechanization before allocating resources to large integrated projects. The great challenge facing countries with intermediate income is the acceleration of the pace of industrialization. This challenge first and foremost calls for a healthy agricultural growth. It is a fact that financial constraints impende any possibility of carrying out economic development projects. However, multilateral and bitateral aids and loans granted to African countries by friendly countries and financial institutions constitute one of the main funding sources.

Table 2: World Bank and IDA loans per country visited as of 30 June 1980 (in Millions of US Dollars) *

Countries	BANK		IDA		TOTAL	
	Number	Amount	Number	Amount	Number	Amount
ALGERIA	24	1,091,0	-	-	24	1,091,0
BOTSWANA	10	106,7	6	15,8	16	122,5
BURUNDI	1	4,8	14	85,2	15	90,0
IVORY COAST	32	548,6	1	7,5	33	556,1
EGYPT	24	1,195,0	21	783,6	45	1,908,6
GHANA						
ETHIOPIA	12	108,6	24	368,1	36	476,7
KENYA	35	789,3	24	408,3	59	1,197,6
MOROCCO						
NIGERIA	41	1,380,7	2	35,5	43	1,416,2
RWANDA	-	-	13	109,7	13	109,7
SENEGAL	16	109,1	21	187,7	37	296,8
SIERRA LEONE						
SUDAN	8	166,0	22	522,5	30	688,5
TANZANIA						
UGANDA						
ZAIRE	6	220,0	20	277,0	26	497,0
ZAMBIA	23	566,4	2	37,3	25	603,7

* World Bank 1980 Annual Report

Looking at the loans granted by the World Bank and IDA it is observed that loans granted to the countries visited during the 1980 financial year amounted to US$ 9 billion.

To this funding source should be added bilateral aids and various financial agreements between the States and international financial groups or between the states and private foreign investors.

It is a fact that the utilization of the financial possibilities depends on each of the countries to which the loans are granted.

It is observed that with regard to fundings granted for industrial development projects the countries visited rely on the

services of consulting engineers from industrialized countries. Such services which cost not less than US$ 10,000 and average US$ 14,000 per man month plus travel, housing and subsistance weigh heavily on the country's foreign exchange. It is also noticed that there is a loss of 10 to 15 per cent on the financial aid for the project.

Of all the countries visited, with the exception of Nigeria, Zimbabwe, Zambia, Sudan, Tanzania, Algeria, and Egypt, projects are implemented from the initial stage to the final stage by foreign consulting engineers without the participation of the nationals. This concerns particularly the preparation of the dossier of the feasibility study, i.e.

(a) Identification and conception of the project

(b) Market survey (marco economic survey, domestic prefeasibility, choice technology, financial evaluation, etc)

The foreign exchange drain caused by the use of foreign consulting engineers can be lessened by using nationals to perform a substantial amount of the work. This approach will also permit a country to more fully understand the ramifications of the various projects under study, its impact on national development will enable an in-depth analysis and evaluation to be performed to determine the gains to be made from such potential projects. The use of local consulting engineers in the process of preparing economic development projects will also contribute to the national implementation of the Lagos Plan of Action.

(c) Preparation of the dossier of technology consultancy (type of technology and international tender, etc).

In countries like Nigeria and Egypt where the nationals are efficient in the field of infrastructural development, particularly in the building sector, the influence of foreign consulting engineers is limited. This is also true of Algeria which has several local consulting engineers; and the societe National d'Etudes et de Recherches Industrielles (SNERI) controls the services of foreign consulting engineers which are limited to areas which require sophisticated technology such as the petroleum and steel indus ries.

Whatever the terms and conditions under which the services of foreign consulting engineers are used it is a fact that these services are expensive and it appears that the training aspect of them (transfer of technology) is neglected to a large degree.

Even though the services of foreign consulting engineers drain the foreign exchange of the countries visited there is no doubt that these countries are advised about the contents of the projects to be implemented. This is because the execution of several projects are left in the hands of expatriates and as a result the countries concerned cannot effectively evaluate the impact of such projects on the national development. This state of affairs poses a lot of problems in the case of the countries visited specifically, and Africa in general, do not gain much from such projects. It can be inferred from the above that using local consulting engineers and involving them in the process of preparing economic development projects would to a large extent contribute to the rational implementation of the Lagos Plan of Action and to the success of industrialization.

Indeed all the countries visited have economic potential which will encourage the implementation of the Lagos Plan of Action.

3.2 Some economic indicators of each of the countries visited

SENEGAL

(a) Population

According to the 1980 statistics the population of Senegal was 5.6 million. Today it is observed that Senegal has a young population increasing more rapidly than it is expected. With this rising young population the country is increasingly facing an acute demographic problem.. In 1980 the annual growth was 2.6 per cent whereas the urban growth was more than 30 percent. Senegal is facing several problems as a result of this rising young population, such problems as per capita income, the percentage of children attending school, and health. This new situation adds to the constraints weighing down on the economic and social development of the country, thus giving a new dimension to the basic development

objectives, that is the creation of productive employment, primary education, health facilities for all, provision of food requirements, housing and remedies to infrastructural problems. Indeed the seriousness of this problem of rising young population stems from the fact that those under 15 represent 44 per cent of the country's total population with a high fertility rate of 6.4 per cent, whereas the crude birth rate is over 4 percent to a thousand. It is true that the mortality rate which is 20 per cent to a thousand is greatly influenced by an infant mortality which is still very much in evidence in the rural areas. The decline in this infant mortality is far from being matched by a similar decline in fertility in spite of a 30 per cent urbanization rate. It is estimated that the population of Senegal will be over 15 million by the year 2000. Today the active population is estimated at 2.5 million. The labour force is made up of over 63 per cent of men (1,245,200). More than 78.6 per cent of the active labour force i.e. 1.6 million is concentrated in the rural areas whereas the active population in the towns is 420,000 of which 86,000 are women.

Indeed the modern sector in Senegal is not yet in the position to offer paid jobs to a great number of people with a view to absorbing all the active labour force. This is why much hope is placed on the traditional sector which will help mitigate the tension on the job market in the towns. This explains the importance being attached to rural development without which it will be difficult to find a lasting solution to the problem of urban employment. As we have pointed out earlier the additonal offer of urban labour force caused by the rapid population growth and the rate of urbanization is too much for the modern sector of the economy to absorb. Therefore at least half of the young people going to the job market must try to look for employment in the traditional urban sector.

On the basis of the Fifth Plan it is estimated that the active population will be 2.1 million with the rural area accounting for 1.6 million and the urban area 600,000.

Table 3: Employment trend in Senegal from 1976-1981*

Active population	1976	1981	Average growth
Active population	1,961,800	2,187,100	45,100
1. Rural active population	1,542,600	1,667,500	25,000
Rural active population engaged in traditional fishing	56,600	72,200	3,100
2. Urban active population	419,200	510,600	20,100
A. Modern sector (wage earners)	141,500	178,300	7,400
1. Private sector	77,600	104,200	5,300
2. Public sector	68,900	74,100	2,100
B. Traditional sector	277,700	341,300	12,700
1. Registered artisans	34,000	38,000	-
2. Unemployed	20,000	22,000	

There is an urgent need to train skilled manpower. From the period 1976 to 1981, 39,700 were skilled workers and 10,500 are semi-skilled workers. These figures do not take into account the skilled workers required in the agricultural, cattle rearing, fishing and health sectors. They are estimations based on jobs created in the modern sector and on a rigid structure where there is already a shortage of technicians. The skilled manpower needs are susbstanitally high due to present shortages:

The shortage of junior executives is estimated at 2,366, i.e. 18 per cent of those working in the public sector who are over 13,130.

The senior technical executives are in most cases expatriates. New projects under bilateral agreements only use foreign skilled manpower. At times the foreign country or firms which want to invest in an African country carries out studies at its own expenses, using its own labour force

* Fifth Four-year Social and Economic Development Plan (1977 - 1981), Dakar

throughout the various stages of the implementation of the project. Thus we see that the nationals of the country where a project is being set up do not take part in the process of feasibility studies and the implementation of that project. Where the project provides for a training of nationals after it has become operational, such training is limited to only the secretarial public relations and basic accounting aspects of the company. It is rare to see a national occupying a key position in the company right from its inception. Without the participation of Senegalese in the pre-feasibility and feasibility studies and in the negotiation of contracts much depends on those launching new projects. They must be co-operative, in not only making the nationals participate in the implementation of the projects but also using local raw materials.

(b) Gross Domestic Product

From 1959 to 1974 Senegal's GDP experienced an annual growth of 5.7 per cent at current prices. This is due to the following factors:

(i) the role played by the primary sector
(ii) the development of the secodnary sector

The current Fifth Plan provides that the GDP will grow to the average rate of 5 per cent during the period 1977-1981 due to the secondary sector which will experience the highest growth, 7.5 per cent against 4.1 per cent for the primary sector and 5.6 per cent for the tertiary.

It is estimated that the volume of investments will reach 410 billion divided as follows:

- Primary sector..... 110 billion
- Secondary sector ..... 100 billion
- Tartiary sector ..... 76 billion
- Social sector, studies and research, administrative equipment ..... 124 billion

It is hoped that the secondary sector will experience a significant development with an overall growth rate of 7.5 per cent during the Four-year Plan. In this significant growth of the whole of the secondary sector the industry alone will grow by a volume of 8 percent.

That the secondary sector experienced a rapid growth from 1959 to 1974 cannot be denied. This is due to the creation of industries that can manufacture the important goods that the country needs. Industries for the manufacture of goods for export were also set up. The Fifth Plan provides for the creation of industries capable of upgrading the local raw materials and integrating various activities into the industrial lines. It is estimated that the existing industries will expand thanks to the development of the primary sector.

The annual growth rate of branches considered as the driving force behind the secondary sector during the Fifth Plan will be:

1. The textile industry ..... 14 per cent
2. The food and agricultural industries (with the exception of oil mill) ..... 12 per cent
3. The building materials industry .....12 per cent
4. The chemical industries ..... 7 per cent

It is expected that the textile industry will process only Senegalese cotton fibre, a significant portion of which will be meant for export. The chemical and mining industries will get the largest investment for the upgrading of local raw materials. This concerns mainly the exploitation of the Tobens phosphate and the construction of a new cement factory.

The Four-year Plan also provides for a growth rate for the tertiary sector which is estimated at 5.6 per cent. With regard to foreign trade the country will experience an unfavorable balance of trade during the Fifth Plan which comes to an end in 1981. This is mainly due to the importation of the necessary equipment for the implementation of industrial projects. Twenty-one billion CFA worth of equipment was purchased in 1974 and it is estimated that in 1981 the figures will reach

41 billion CFA.

Indeed Senegal's Fifth-year Plan devotes more than 60 per cent of its investment estimates to the development of the productive sectors of the economy. 27 per cent of which goes to the primary sector (including rural water supply), 24 per cent to the secondary sector and nearly 9 per cent to tourism. Out of a total investment of 410 million CFA estimated during the Four-year Plan, 151 million CFA comes from local sources while more than 259 million CFA comes from external sources.

IVORY COAST

(a) Population

The Decree No. 77,659 of the Government of the Ivory Coast total population of 6.7 million, i.e. a density of 20.9 per sq. km. At the beginning of 1981 the population was estimated at 8 million. Ivory Coast has a rapid population growth.

It is estimated that the population will be over 15 million by the year 2000. The young population of less than twenty years will exceed 50 per cent. This will pose a serious problem to the Government in terms of providing schooling to this young population.

Population trend from 1920 - 1980.*

1920	1,825,000
1930	2,075,000
1940	2,350,000
1945	2,595,000
1950	2,775,000
1955	3,050,000
1960	3,865,000
1965	4,500,000
1975	6,709,000
1980	8,189,000

* Development Plan

The above figures show that the population of Ivory Coast tripled in 30 years and its progression maintained a growth rate of 4 per cent from 1965 to 1980.

Given the need for economic development which calls for a quantitative and qualitative evaluation of the country's human resources, it was estimated that in 1978 the average annual growth rate would be 4.27 per cent for the period 1975 - 1990. Given also the growing young population and the economic development objectives, the Government of the Ivory Coast has expanded and given priority to vocational training. The University of Abidjan created in 1962 has such facilities as Law, Science and Arts. In the 1978/1979 academic year over 10,000 students were admitted to the following faculties: Arts, Science, Law, Economics, Medicine, and Applied Psychology.

Vocational training features prominently in the educational system of the country. During the academic year 1977/1978 there was a total of 35,242 students in vocational schools.

(b) Gross Domestic Product

It was in 1978 that the Ivorian economy started to boom again, with the GDP growth rate reaching 10 per cent at current prices. Industrial production continued to grow and investments, particularly in the public sector, were very high.

Table 4: GDP by industrial origin from 1974 to 1977*

(in billion of CFA)

	1974	1975	1976	1977
At current prices				
Agriculture, forestry and fishing	188.2	235.8	272.7	358.2
Industry (with the exception of building)	86.3	93.4	119.2	160.0
Building industry	33.1	48.9	83.2	97.1
Transport & Communications	60.9	68.7	79.5	97.5
Commercial services	135.9	151.8	175.2	339.2
Other services	70.0	86.2	104.4	129.9
GDP at factor cost	574.4	684.8	814.2	1,181.7

* Ivory Coast in figures.

Food production which fell in 1977 grew again. There was a substantial increase in the production of bananas, cotton, palm oil and cocoa whose price was high even though it was less compared with the 1977 price. However, there was a considerable decline in the production of coffee. Long term export declined in 1978.

With regard to GDP expenditure there was an increase of 14.9 per cent at current prices in 1977. Domestic expenditure only increased by 39.6 per cent i.e. less than the GDP. This was because the trade surplus increased from 47.4 to 92 billion CFA.

NIGERIA

(a) Population

80,563 million with a population growth rate of 2.5 per cent.

Table 5: Gross Domestic Product (1980-1985)
(at constant prices)

Sector	1980	1981	1982	1983	1984	1985
1. Agriculture	5,205	5,684	6,207	6,778	7,401	8,082
2. Cattle rearing forestry & fishing	3,733	4,076	4,451	4,861	5,308	5,797
3. Mining and Quarry	16,640	17,991	19,452	21,032	22,739	24,587
4. Manufacturing industries	4,043	4,973	6,117	7,523	9,254	11,382
5. Utilities	181	208	239	275	317	364
6. Construction	3,482	3,875	4,313	4,801	5,343	5,947
7. Transport	2,194	2,611	3,107	3,697	4,400	5,236
8. Communications	116	133	153	176	203	233
9. Commercial services	8,543	9,995	11,695	13,683	16,009	18,730
10. Building	2,176	2,350	2,538	2,741	2,960	3,197
11. Services	2,908	3,431	4,040	4,778	5,638	6,653
12. Other services	1,378	1,612	1,886	2,207	2,582	3,021

It is estimated that from 1980 to 1985 the GDP at factor cost will increase from N.36,078 to N 51,071 M, an annual average growth rate of 7.2 per cent during the five year plan. The per capita income will increase from N 426 to N 531 from 1980 to 1985 while at current prices the increase will be from N 568 to N 931 . Agriculture including livestock, forestry and fishing will experience an annual growth rate of 4 per cent, construction 5 per cent, mining and quarry 2 per cent.

Nigeria's economic potential

(a) Agriculture

Nigeria's agriculture includes rice, maize, millet, sorghum cassava, cocoa, tobacco, groundnuts, palm kernel, cotton, rubber, coffee, potatoes and kola nuts. There is a considerable development in the rearing of goats, cattle, sheep, pigs, horses and camels. Nigeria has an average of 4 M head of the above mentioned animals.

(b) Mineral resources and manufacturing industries

Nigeria has substantial deposits of tin, lead, gold, salt, columbite and limestones. It also has vast deposits of oil, natural gas and coal. The country has 103 industrial establishments, engaged in the mining and processing of oil, gas, and various other minerals for export.

(c) Manufacturing industries

The most important of the 1025 manufacturing industries in Nigeria are:

- food, beverage and tobacco industries
- textile, clothing and leather industries
- chemical industries
- non-metallic mineral industries
- basic metallurgic industries

Under its fourth development plan Nigeria is determined to use all the vital resources of the country with a view to improving the well being of its people. The main aspects of the objectives of the plan include:

(a) increase in real income of the average citizen
(b) distribution of national income among individuals of the various social groups
(c) reduction of the level of underemployment and underutilization
(d) increase in the number of skilled workers
(e) reduction of the dependence of the economy in several activities
(f) a balanced development of the various sectors of the economy and the regions of the country
(g) increased participation of nationals in enterprises
(h) self-sufficiency
(i) development of productivity
(j) increase in productivity
(k) promotion of new measures to ensure discipline, a better attitude to work and a healthy atmosphere.

BOTSWANA

(a) Population

The population of Botswana is estimated at 747,000. The growth rate was 1.9 per cent from 1965 to 1975. It is estimated that in 1984 Botswana's population will reach 975,000 i.e. a growth rate of 3 per cent. In 1978 the per capita GDP was US$ 620.

Table 6: GDP by industrial origin from 1973/74 to 1978

(at current prices)

	1973/74	1975	1976	1977	1978
Agriculture	69	61	64	73	67
Mining	16	15	34	41	50
Manufacturing industries	10	16	21	25	22
Water and electricity	3	7	11	9	11
Construction	20	20	19	15	18
Commercial services	28	34	43	55	71
Transport and communications	5	6	8	2	7
Financial institutions	13	14	18	24	29
Government	18	25	36	48	52
Services	7	9	13	13	14
GDP at market price	189	203	263	297	333
Indirect taxes	15	18	23	28	42
GDP at factor cost	174	185	241	269	292

(b) Agriculture and livestock

Botswana produces maize, millet, sorghum and various kinds of vegetables. Agricultural production increased from 26,000 tons in 1970 to 62,000 tons in 1974 i.e. an increase of 26.5 per cent. However, in 1978/79 production dropped considerably to 8,500 tons due to drought. Cattle rearing provides the country with fowls, cow meet, mutton, goat and pig meat.

(c) Mineral resources

Botswana has rich diamond mines and great deposits of copper, nickel, manganese and asbestos.

(d) Manufacturing industries

Unlike many African countries, Botswana has no important infrastructure for manufacturing industries. The only important manufacturing industries are the meat and milk industries.

Under its development programmes it is the aim of the

Government of Botswana to attain the following objectives:

1. increase in the GDP at an annual rate of 10 per cent between 1979/80 and 1984/85
2. using the GDP to improve the well being of the people
3. creation of new jobs particularly in the agricultural sectors (it is expected that 10,000 jobs will be created annually)
4. a solid balance of payment.

REPUBLIC OF KENYA

(a) Population

Total population in 1978: 15 million; population growth rate: 1973 - 1978: 3.3 per cent.

(b) Economic situation

GNP in 1978: US$ 4,500 million. Per capita GNP in 1978 US$ 330. Kenya's main crops include wheat, maize, millet, sorghum sugar cane, potatoes, sweet potatoes, cassava, tea, coffee, and sisal. The agricultural sector, with an annual production exceeding 3 million tons provides the country with most of its food requirements. The breeding of cows, goats and sheep plays a very important role in the economic life of the country. In 1978 Kenya had over 14 million head of cows, goats and sheep.

Mineral resources and mining industry

Kenya has deposits of gold, silver, koalin, magnesite, phosphate, baryta, salt, vermiculite, lime and limestones, diatomite and copper, etc. Kenya has over 23 industries engaged in the mining of minerals for export to the industrialized countries

Manufacturing industries

The following are the most important of the 358 manufacturing industries in Kenya:

- food, beverage and tobacco industires
- textile, clothes and leather industries
- chemical industries
- non-metallic mineral industries
- basic metallugric industries
- metal industry

Import of commodities, capital goods and spare parts

In 1974 Kenya's total import amounted to K £ 1 million. The import includes:

- steel or iron bars
- tubes, pipes and its accessories
- finished building materials
- tractors
- machines for textile industries
- machines for specialized industries
- heaters and refrigerators
- pumps and turbines
- mechanical handling equipment
- electric power generating machines
- goods trains
- goods trucks;
- car engines
- aircrafts

REPUBLIC OF BURUNDI

(a) Population

Total population in 1975: 4,463 million: Population growth rate: 1965-1973: 2 per cent: Official languages: Kirundi, French.

(b) Economic structure

The per capita GNP in 1978 was US$ 140;per capita GNP growth rate from 1945 to 1973 was 1.4 per cent.

Agriculture and livestock

Cattle rearing is the main activity in Burundi which contributes 52 per cent to the GNP. Burundi also produces coffee, cotton, tea, maize, sweet potatoes and bananas. Coffee accounts for 85 per cent of the country's resources. 90 per cent of the country's population is in the agricultural sector even though only 37 per cent of the country's total area is available.

Mineral resources and mining industry

With the discovery of nickel it is estimated that 30,000 tons of the mineral can be exploited annually . In addition to nickel, Burundi has deposits of tinstone, gold, columbite and bestnesite. According to geological surveys one cannot rule out the possibility of the country having deposits of koolin, phosphate and potassic salt in the Ruzizi valley.

REPUBLIC OF ZAIRE

(a) Population

Total population in 1978 - 26,770 million;population growth rate - 2.7 per cent.

(b) Economic structure

- per capita GNP in 1978: US$ 210
- per capita GNP growth rate: 2.9 per cent
- Agriculture and cattle rearing

Zaire's main crops are rice, maize, cassava, sugar cane, coffee, tea, cooca, groundnuts, palm kernels, cotton, rubber, tobacco, orange, banana, pea and pyrethrum. Cattle rearing in Zaire includes cows, pigs, sheep and goats with the latter topping the cattle trade followed by cows.

Mineral resources and mining industry

The Republic of Zaire is rich in such minerals as cobalt, copper, uranium, manganese, silver, tin, tungsten, zinc,diamond, tantalite, tinstone,phosphate and mineral ore. Most of the deposits of these minerals including copper are concentrated in the Shaba region. Zaire has a considerable industrial infrastructure concentrated in the Shaba region for the mining of the above mentioned minerals for export.

(c) Manufacturing industry

Zaire has an important manufacutring industry which meets the local demands in consumer and capital goods. The contribution of this industry to the national income is on the increase. It varied between 14.2 per cent and 21.4 per cent from 1960 to 1975. The following are the most important industries:

- food industry
- tobacco industry
- textile industry
- footwear industry
- timber industry
- paper industry
- rubber industry
- chemical industry
- non metallic mineral industry
- metallurgy industry
- metal manufacturing industry
- transport equipment manufacturing industry
- machine manufacturing industry.

SUDAN

Population: Sudan has an estimated population between 16,700,000 (1978 UN estimate) and 17,400,000 (1978 World Bank estimate) that has experienced a percentage average annual growth of 2.2 between 1960-1970 and 2.6 between 1970-1978.

Labour Force: The percantage of the working age population (15-64 years) has remained constant between 1960 and 1978 at 53% or 9,222,000 workers. The labour force working in the three economic categories of agriculture, industry and services has shown a percentage variation in these categories as follows:

	1960	1978
Agriculture	86	79
Industry	6	9
Services	8	12

Agriculture has seen a percentage decrease of 7% in total population effort while the areas of industry and services have experienced gains of 3% and 4% respectively.

GNP: The Gross National Products (1978 is the best and most current data available from the World Bank) is US$ 5,540 million. This equates to a GNP per capita of $320. There has been an average annual growth of 0.1 between the years 1960 and 1978.

The average annual percentage rate of inflation in Sudan was 3.7 between 1960-1970 and a weighted 7.4 between 1970-1978. The rate of inflation between the years 1970-1978 was considerably lower than that experienced by other low- income countries which was approximately 10.6. However, the rate of inflation in the last several years has accelerated greatly.

Agriculture products:

The main agricultural production commodities are beef, cotton, groundnuts, sesame, gum arabic and sugar cane. These, with the exception of sugar cane and beef are also the main export items.

Industrial production:

Industiral production is limited primarily to consumer type items. There are several main areas of industrial production: cement, flour, sugar, soap, vegetable oils, cigarettes, shoes as well as textiles.

Growth of merchandise trade:

In 1978, Sudan experienced merchandise trade (in million of US$) of $533 in exports and $1,198 in imports. The average annual percentage growth rates of exports and imports is as follows:

	1960-1970	1970 1978
Exports	2.1	-3.2
Imports	1.1	6.4

The terms of trade, using 1970 to equal 100, indicates that in 1960 it was equal to the base year of 1970 (100) while it has fallen to 92 in 1978.

Economic potential:

Sudan currently has a huge balance of payments deficit, rapidly increasing inflation, and a mounting backlog of debt that deters potential creditors. The figure for the public sector alone exceed $650 million. Balance of payments figures actually understate the seriousness of the problem, because most externally financed development is recorded elsewhere. This occurs by bookkeeping transfers of money directly from the aid sources to the contractors, without entering the country.

Many of the larger agriculture and cattle projects will take decades to develop and therefore will have little, if any, effect on immediately

strengthening the national economy.

Sudan, however, has recently discovered oil and it is surmised that they will shortly be self-sufficient in this product. This discovery will mean that the current yearly expenditure of approximately $300,000,000 will be able to be diverted to repay creditors and for national development. Additionally, gold deposits have been discovered in the Nuba mountains and the Red Sea area as well as potentially significant finds of other minerals.

All this should encourage foreign investment and gradually put Sudan onto a sound economic base for growth, development and expansion.

Other economic factors:

Refer to the Appendix for a detailed analysis of economic and development factors.

TANZANIA

Population: Tanzania has a population of 17,500,000 based on the 1978 census but The World Bank estimates the population at 16,900,000. The Population has experienced an average annual percentage growth rate of 2.7 between 1960-1970 and 3.0 between 1970-1978.

Labour force: The percentage of the working age population (15 - 64 years) has lessened from 54% in 1960 to 51% in 1978. There are approximately 8,620,000 in the viable work force. The labour force working in the three economic categories of agriculture, industry and services has experienced nominal percentage fluctuations as follows:

	1960	1978
Agriculture	89	83
Industry	4	6
Services	7	11

GNP: The Gross National Product is US$3,880 million, based on 1978 World Bank figures. This equates to per capita of $230. There has been an average GNP growth percent of 2.7 between the year 1960 and 1978.

The average annual percentage rate of inflation in Tanzania was 1.8 between 1960-1970 and a weighted 12.3 between 1970-1978. The inflation rate for the past couple of years has greatly increased from that of the weighted average.

Agricultural products: The following table details the agricultural production of Tanzania for the past six years in thousands of metric tons:

Commodity	1974	1975	1976	1977	1978	1979
Cotton	70.5	42.5	69.0	65	56	60
Coffee (thousand bags)	750	847	850	49*	51*	49*
Sisal	143	128	120	105	92	85
Cashew nuts	117	83	96	96	66	58
Maize	1,446	1,354	1,619	1,750	1,041	900
Rice	293	400	430	359	260	200
Sorghum	236	455	460	460	250	240
Millet	88	160	130	150	160	160

* thousand tons

Source: Bank of Tanzania and UNFAO

Foreign Trade:

The following table, expressed in millions of shillings, details the major exports, imports and trade balance. The data for this presentation was obtained from the IMF.

	1974	1975	1976	1977	1978	1979
Exports	2,861	2,765	4,108	4,161	3,635	4,484
Coffee	378	485	1,283	1,708	1,303	1,216
Cotton	493	298	614	528	419	492
Diamonds	99	178	159	97	n.a.	n.a.
Sisal	464	302	240	217	218	262
Imports	5,258	5,694	5,352	5,975	8,867	9,073
Trade Balance	-2,397	-2,929	-1,312	-1,814	-5,232	-4,589

Growth of merchandise trade:

In 1978 Tanzania experienced trade (in millions of US$) of $457 in exports and $1,117 in imports. The average annual percentage growth and growth rate of exports and imports is as follows:

	1960-1970	1970-1978
Exports	3.5	-6.0
Imports	6.0	-1.0

The terms of trade using 1970 as a base year to equal 100 indicates that in 1960 it equated to 96, a drop of 4, and experienced a gain in 1978 to 104, an increase of 4.

Economic potential:

The initial Development Plans of 1980-3 and the First Five Year Plan of 1964-9 did not attract the projected foreign investment that was anticipated. In 1967 and subsequently, nationalization of banking, insurance, and the major means of production and distribution occurred. The Second Five Year Plan of 1969-1974 ended in a general economic crises brought about by the international recession, the impact of oil price increases and by drought. The Third Five-Year Plan, approved in 1978 after it had already come into operation, stressed self-sufficiency in food and provided a basic industries strategy.

This industrial strategy is stressing the expansion of iron and steel, cement, fibres and textiles, pulp and paper, tannaries and meat processing, fertilizers, chemicals and energy.

This strategy should extend the range of import-substitution from consumer goods to intermediate and producer goods.

This plan encourage professional managment and recognizes the importance of public and private enterprise and should encourage industrial investment.

RWANDA

Population: Rwanda has a population of 4,500,000 (based on 1978 World Bank estimates). The population has experienced an average annual percentage growth rate of 2.6 between 1960-70 and a 2.9 rate between 1970-78.

Labour force: The percentage of the working age population (15-64 years) has remained fairly stable for the past 18 years. It has only experienced a drop of 2% between 1960 (54%) and 1978 (51%). There are approximately 2,300,000 available in the current work force. This work force, in the 3 categories of labour utilization, is experessed as a percentage as indicated in the following table:

	1960	1978
Agriculture	95	91
Industry	1	2
Services	4	7

The average annual growth of the labour force, historic and projected, is shown below:

	% Increase
1960-70	2.2
1970-80	2.5
1980-2000	2.8

GNP: The Gross National Product is US$ 830 million based on 1978 World Bank data. The GNP per capita is US$180. There has been an average annual growth rate of 1.4 per cent between 1960 and 1978.

The average annual rate percentage of inflation in Rwanda was 13.1 between 1960-1970 and 14.7 between 1970-1978.

Agricultural Production: The following table, based on FAO estimates, depicts in thousands tons the annual food production:

	1977	1978	1979
Plaintain Bananas	1,902	2,043	2,127
Beans (dry)	172	174	184
Sorghum	164	172	150
Sweet Potatoes	702	842	842
Potatoes	177	206	204
Cassava	444	439	460

Balance of trade: The IMF reports the balance of trade as follows in million Rwanda francs:

	1976	1977	1978
Exports	7,535	8,540	8,388
Coffee	5,817	6,174	5,952
Tin	480	477	441
Tea	496	715	1,064
Wolfram	168	177	n.a.
Imports	9,858	11,406	16,618
Deficits	-2,323	-2,866	-8,230

Balance of payment: The balance of payments for Rwanda, stated in million US dollars, is as follows:

	1978	1979
Goods and Services	-140.7	-83.4
Private Transfers	1.3	5.8
Government Transfers	93.0	124.7
Direct Investment	4.8	12.7
Net Capital	42.6	2.3
Errors and Omissions	-0.1	0.3
Total Change in Reserves	-3.0	-80.0

As of End-March, 1981, the IMF reports the outstanding amounts of use of IMF credit and loans to Rwanda in millions of SDRs as:

Use of Fund Credit	-
Trust Fund Loans	10.70

Population: Sierra Leone has a population of 3,300,000 (based on 1978 UN estimates). The population has experienced an average annual growth rate of 2.2 per cent between 1960-1970 and 2.5 percent between 1970-1978.

Labour force: The percentage of the working age labour force (15-64 years) has lessened from 55% in 1960 to53% in 1978. There are about 1,760,000 in the work force and their labour categories are classified as follows for the years 1960 and 1978 by per cent:

	1960	1978
Agriculture	78	67
Industry	12	18
Services	10	15

The average annual growth of the labour is presented in percentage form as follows:

	% Increases
1960-1970	1.5
1970-1980	1.8
1980-2000	2.3

GNP: The Gross National Product is US$ 690 million based on 1978 World Bank data. The GNP per capita is US$ 210. The average GNP growth has been 0.5 between the years 1960-1978.

The average annual percentage rate of inflation in Sierra Leone was 2.8 between 1960-1970 and has risen to a medium 10.8 between 1970-1978.

Agriculture production: The main agricultural production, based on FOA estimates, is depicted in the following table and is

expressed in thousand tons:

	1977	1978	1979
Rice	600	620	480
Palm Kernels	42	30	50
Cassava	89	89	90
Coffee	7	5	13
Cocaa	6	7	9

GDP by source: The GDP by source (expressed in million Leones, at current factor cost) is from data by the ECA and is not current. The best available data, at this time, is for the following years:

	1975/76	1976/77
Agriculture, Forestry, Fishing	212.6	249.2
Mining	60.4	55.3
Manufacturing	31.2	34.8
Electricity and Water	3.5	3.8
Construction	17.1	21.4
Commerce	74.2	81.9
Transport	92.9	107.4
Total GDP	557.3	627.6

Balance of Trade: The IMF reports the balance of trade, in millions of Leones, as follows:

	1977	1978	1979
Exports	155.5	163.5	154.6
Diamonds	62.1	108.9	105.6
Coffee	35.1	23.7	2.4
Cocoa	21.7	11.9	17.9
Imports	206.2	290.8	n.a.
Deficit	-50.7	-127.3	n.a.

Economic potential: The economy of Sierra Leone remained in a depressed condition in 1980 with a considerable shortage of foreign exchange and a worsening payments condition.

The viability of Sierra Leone, however, was ensured by co-operation with the IMF.

As of April, 1981 the IMF Exchange and Trade Relations Department reports the following for Sierra Leone, in terms of million SDRs:

Amount Agreed:	163.7
Amount Purchased:	-
Undrawn Balance:	163.7

As of the end of March 1981, the IMF African Department reports the outstanding amounts of use of IMF credit and loans to Sierra Leone as follows in Million SDRs:

Use of Fund Credit	17.59
Trust Fund Loans	24.44

Note: Trust fund loans and from ordinary resources and supplementary financing facility resources.

Revenue and expedniture:

The Bank of Sierra Leone reports the revenue and expenditure in million leones as follows:

	1977/78	1978/79	1979/80
Current Revenue	178.6	173.2	162.9
Recurrent Expenditure of which:	193.9	311.3	156.7
Public Debt Charge	34.9	72.2	79.0
Balance on Current Account	-15.2	-38.11	6.2
Total	21.3	65.2	77.4

Note: 1979/80 data is projected.

ZIMBABWE

Population: Zimbabwe has a population of 6,900,000 (based on 1978 UN estimates). The population has experienced an average annual percentage growth rate of 3.9 between 1960-1970 but this rate has decreased to 3.3 between 1970-1978.

Labour force: The percentage of the working age population (15-64 years) has lessened from 52% in 1960 to 50% in 1978. There are approximately 3,450,000 people available currently in the work force . The labour force working in the three economic categories of agriculture, industry and services has experienced a 9% drop in agricultural work force as indicated below:

	1960	1978
Agriculture	69	60
Industry	11	15
Services	20	25

The average annual growth of the labour force, both historic and projected, can be indicated by the following percentages:

	% Increase
1960-1970	3.1
1970-1980	2.6
1980-2000	3.0

GNP: The Gross National Product is US$ 3,320 million based on 1978 World Bank data. This equates to a GNP per capita of US$ 480. There has been an average GNP growth per cent of 1.2 between the years 1960 and 1978.

The average annual percentage rate of inflation in Zimbabwe was 1.3 between 1960-1970 and has risen to a weighted 7.6 per cent between 1970-1978.

Agricultural production:

The following table, based on FAO estimates, details the major agricultural production in thousands of tons for past three years. It indicates that the major crops of sugar, maize and millet have experienced a 25% drop in production over the three years.

Commodity	1977	1978	1979
Sugar	2,500	2,300	2,100
Maize	1,300	1,400	1,000
Millet	220	220	140
Groundnuts	120	120	120
Wheat	85	90	100
Cotton seed	99	99	90
Tobacco	83	85	100

Mining production:

Mining is a significant portion of the economy of Zimbabwe. The following figures, expressed in millions of Zimbabwe dollars give an indication of the value this phase of industry represents to the country:

Mineral	1978	1979
Asbestos	67.0	65.8
Gold	51.8	80.9
Chrome ore	13.4	16.1
Coal	23.7	25.8
Copper	23.0	35.1
Nickel	45.1	39.4
Iron ore	7.8	7.3
Silver	4.0	7.2
Cobalt	0.06	5.2
Tin metal	8.2	9.9
Total (incl. others)	252.1	314.8

Balance of payments:

The balance of payments, based on the Economic Survey

of Zimbabwe, shows a reasonably favourable picture of economic stability. The table is in million of Zimbabwe dollars:

	1977	1978	1979
Exports	545.8	613.9	697.5
Imports	413.9	435.6	584.5
Trade Balance	+131.9	+178.3	+113.0
Net Current Account	-24.5	+12.7	-92.6
Net Capital Account	-31.4	+27.1	+83.4
Overall Balance	-55.9	+39.8	- 9.2

Economic potential:

The Zimbabwe economy is on the way to sound recovery and should continue to show gains as well as attract investment capital.

Population: Uganda has a population of 12,430,000 based on 1978 estimates. The population had experienced an average annual percentage growth of 3.7 between 1960-1970 but this rate has dropped to 2.9 between 1970-1978.

Labour force: The percentage of the working age population (15-64 years) has lessened from 54% in 1960 to 52% in 1978. There are approximately 6,464,000 people currently available in the work force. The labour force is distributed on a percentage basis among the three main classes of the economy as follows:

	1960	1978
Agriculture	89	83
Industry	4	6
Services	7	11

The average annual growth of the labour force, both historic and projected, is indicated by the following percentages:

	% Increase
1960-1970	3.2
1970-1980	2.5
1980-2000	2.5

GNP: The Gross National Product is US$ 3,220 million based on 1978 World Bank data. This equals a GNP per capita of US$ 280. There has been a slow GNP growth per capita of 0.7 percent between the years 1960-1977.

The average annual rate percentage rate of inflation in Uganda was 3.0 between 1960-1970 but has risen to over 27.3 between 1970 and 1978.

Although current GNP is not available we present the GDP by sector (based on million shillings at current prices) as developed by the ECA for 1975 and 1976.

	1975	1976
Agriculture, Forestry and Fishing	14,996	17,589
Manufacturing	1,317	1,463
Other industry	378	348
Commerce	1,440	1,662
Transport	430	454
Services and other	2,215	2,447
Total GDP	20,776	23,963

Balance of Trade:

The balance of trade, based on data from the International Monetary Fund is presented as follows and is pexpressed in million of shillings:

	1977	1978	1979
Exports	4,884	2,682	3,182
Imports	1,992	1,963	1,319
Surplus	2,892	719	1,863

Economic potential:

The key issue for the recovery of the economy for Uganda is to regain the loss of the managerial and technical people that left during the past few years. Financial and techincal aid has been coming from the US, EEC,Britain, West Germany, Kenya, the World Bank and other sources.

A prediction of a return to economic prosperity within two years has been stated. This seems overly optimistic without a tremendous influx of technicians and professional bussiness personnel.

MOROCCO

POPULATION

The population of Morocco is approximately 18,000,000 based on 1978 World Bank data. The average annual growth of the population for the years 1960 - 1970 was 2.5 percent and this increased to 2.9 percent between 1970 - 1978. The hypothetical size of the stationary population is estimated at 70,000,000 and the assumed year of reaching a net reproduction rate of 1 is the year 2025, and the year of reaching stationary population growth is 2090.

LABOUR FORCE

The percentage of the population of working age (15-64 years) was 53 percent in 1960 and this decreased to 50 percent in 1978. The distribution percentage of this work force is presented below:

	1960	1978
Agriculture	62	53
Industry	14	20
Services	24	27

The average annual growth of the labour force, in percent, is presented as follow:

	Percent
1960 - 1970	1.6
1970 - 1980	2.9
1980 - 2000	3.3

GNP

The Gross National Product of Morocco in the year 1978 was US$ 12,642 million with a per capita GNP of $ 670. The average annual growth rate of the GNP for the period 1960 - 1978 was 2.5 percent.

PRODUCTION

The growth of production in Morocco has experienced steady gain, with the exception of agriculture from 1970 - 1978, and these percentages are presented as follows:

	1960-1970	1970-1978
Gross domestic product	4.2	6.4
Agriculture	4.7	0.1
Industry	4.0	7.9
Manufacturing	3.8	6.6
Services	4.0	7.6

The distribution of GDP in percent form, as part of structure of production, is presented as follows:

	1960	1978
Agriculture	23	18
Industry	27	32
Manufacturing	16	17
Services	50	50

DEMAND STRUCTURE

The structure of demand as a percentage of the gross domestic product distribution is presented as follows:

	1960	1978
Public consumption	12	21
Private consumption	77	68
Gross domestic investment	10	24
Gross domestic savings	11	11
Exports of goods and nonfactor services	24	18
Resource balance	1	- 13

INDUST-RIALIZATION

The distribution of value added, value added in manufacturing and gross manufacturing output is detailed below in percentage form:

	1970	1976
Distribution of value added (%)		
Food and agriculture	-	41
Textiles and clothing	-	14
Machinery and transport equipment	-	6

Chemicals	-	7
Other manufacturing	-	32
Value added in manufacturing (millions of 1970 dollars)	599	$79
Gross manufacturing output per capita (1970 dollars)	n.a.	n.a.

OTHER ECONOMIC FACTORS

Refer to the Statistical Abstract Appendix for a detailed analysis of economic and development factors.

EGYPT

POPULATION

The population of Egypt is approximately 39,900,000 based on 1978 World Bank and United Nations data. The average annual growth of the population for the years 1960-1970 was 2.5 per cent and this decreased to 2.2 percent for the period 1970-1978. The hypothetical size of the stationary population is 101,000,000 and the assumed year of reaching a net reproduction rate of 1 is the year 2015, and the year of reaching stationary population growth is 2105.

LABOUR FO RCE

The percentage of the population of working age (15-64 years) was 55 percent in 1960 and this increased by 1 percent to 56 percent in 1978. The distribution percentage of the work force has shown considerable fluctuation between 1960 and 1978 and the three labour classifications and their percentages are presented below:

	1960	1978
Agriculture	58	51
Industry	12	26
Services	30	23

GNP

The Gross National Product of Egypt in the year 1978 was US$ 15,561 million with a per capita GNP of $ 390. The average annual growth, in percentage form, for the period 1960-1978 has 3.3.

The average rate of inflation for the years 1960-1970 was 2.7 percent but this experienced a 4.3 percent increase to 7.0 percent during the period 1970-1978.

PRODUC-TION

The growth of production in Egypt has shown a steady increase. The average annual growth rate, expressed in percents, is presented below:

	1960-1970	1970-1978
Gross Domestic Product	1.5	7.8
Agriculture	2.9	3.1
Industry	5.4	7.2
Manufacturing	4.7	7.6
Services	5.1	12.0

The distribution of GDP in percent reveals a minimal change in agriculture, but a 5-6 percent change in the ther categories:

	1960	1978
Agriculture	30	29
Industry	24	30
Manufacturing	20	25
Services	46	41

DEMAND STRUCTURE

The structure of demand as a percentage of the gross domestic product distribution is presented as follows:

	1960	1978
Public consumption	17	21
Private consumption	71	65
Gross domestic investment	13	28
Gross domestic savings	12	14
Exports of goods, and nonfactor services	20	21
Resource balance	-. 1	- 14

INDUSTRIALIZATION

The distribution of value added, value added in manufacturing and gross manufacturing is detailed below in percentage form:

	1970	1976
Distribution of value added (%)		
Food and agriculture	-	17
Textiles and clothing	-	34
Machinery and transport equipment	-	11
Chemicals	-	13
Other manufacturing	-	25
Value added in manufacturing (millions of 1970 dollars)	1,326	1,882
Gross manufacturing output per capita (1970 dollars)	146	n.a.

OTHER ECONOMIC FACTORS

Refer to the Statistical Abstract Appendix for a detailed analysis of economic and development factors.

ALGERIA

POPULATION

The population of Algeria is estimated at 17,600,000 based on World Bank data. The average annual growth of the population for the years 1960-1970 was 3.4 per cent and this increased to 3.2 per cent between the years 1970-1978. The hypothetical size of the stationary population is 94,000,000, and the assumed year of reaching a net reproduction rate of 1 is the year 2040, and the year of reaching stationary population growth is 2100.

LABOUR FORCE

The percentage of the population of working age (15-64 years) was 52 percent in 1960 and this decreased to 49 percent in 1978. The percentage of the labour force in agriculture showed a very large decrease between 1960 and 1978, industry and more so services showed significant increases in the labour force. These percentages are presented below:

	1960	1978
Agriculture	67	30
Industry	12	25
Services	21	45

The average annual growth of the labour force shows a growth percentage as presented below:

	Percent
1960 - 1970	0.2
1970 - 1980	3.5
1980 - 2000	3.5

GNP

The GNP of Algeria in the year 1978 was US$ 22,176 million with a per capita GNP of $ 1,260. The average annual growth rate of the GNP for the period 1960 - 1978 was 2.3 percent.

The average rate of inflation for the years 1960 - 1970 was 2.3 percent and this increased to 13.4 percent during the period 1970 - 1978.

PRODUCTION

The growth of production in Algeria has shown fluctuations, both positive and negative, between 1961 and 1977, This data, in percentage form, is presented below:

	1961-1970	1970-1977
Gross domestic product	4.6	5.3
Agriculture	0.4	0.2
Industry	12.9	5.9
Manufacturing	7.7	6.9
Services	- 3.0	5.5

The distribution of GDP in percent reveals significant changes in the structure of production particularly in agriculture, industry and services. These percentages are presented as follows:

	1960	1978
Agriculture	21	8
Industry	33	56
Manufacturing	10	12
Services	46	36

DEMAND STRUCTURE

The structure of demand as a percentage of the gross domestic product distribution is presented as follows:

	1960	1978
Public consumption	16	15
Private consumption	50	48
Gross domestic investment	42	51
Gross domestic savings	34	37
Exports of goods and nonfactor services	28	27
Resource balance	- 8	- 14

INDUSTRIALIZATION

The distribution of value added, value added on manufacturing and gross manufacturing output is detailed below in percentage form:

	1970	1976
Distribution of value added (%)		
Food and agriculture	-	29
Textiles and clothing	-	18
Machinery and transport equipment	-	11
Chemicals	-	6
Other manufacturing	-	36
Value added in manufacturing (millions of 1970 dollars)	735	1,117
Gross manufacturing output per capita (1970 dollars)	n.a.	n.a.

OTHER ECONOMIC FACTORS

Refer to the Statistical Abstract Appendix for a detailed analysis of economic and development factors.

GHANA

POPULATION

Ghana has a population of approximately 11,000,000 based on mid-1978 United Nations and World Bank estimates. The average annual growth of the population for the years 1960-1970 was 2.4 percent and this increased to 3.0 percent between the years 1970 - 1978. The hypothetical size of the stationary population is 56,000,000 and the assumed year of reaching a net reproduction rate of 1 is the years 2040, and the year of reaching stationary population growth is 2130,

LABOUR FORCE

The percentage of the population of working age (15 - 64 years) was 53 percent in 1960 and 51 percent in 1978. The percentage of the work force in the three labour categories has shown a 10 percent variation from agriculture to industry and services as indicated below:

	1960	1978
Agriculture	64	54
Industry	14	19
Services	22	27

GNP

The Gross National Product of Ghana in the year 1978 was US$ 2,629 million with a per capita GNP of $ 390. The average annual GNP percent growth for the period 1960-1978 has been a negative 0.5.

The average annual rate of inflation for the years 1960-1970 was 7.6 percent but this increased to a dramatic 35.9 percent between the years 1970- 1978.

AGRICULTURAL PRODUCTION

The main agricultural crop production of Ghana, expressed in 1000 metric tons, is as follows:

Product	1973	1974	1975
Maize	438	486	525
Millet	109	154	141
Sorghum	167	176	170
Rice(paddy)	62	73	85
Sugar Cane	330	300*	300
Yams	777	850	800
Cassava(manioc)*	1,660	1,770	1,800
Taro (cocoyam)	1,325	1,350	1,400
Eggplants (aubergines)*	99	103	105
Oranges	125	160	165
Groundnuts (in shell)	122	148	95
Coconuts	305	310	300
Cocoa beans	343	382	396

* FAO estimates

INDUSTRY Selected industrial products are presented below:

Product	Unit	1972	1973	1974
Wheat flour	'000MT	39	n.a.	n.a.
Raw sugar	" "	10	10	5
Beer	'000 hectolitres	392	n.a.	n.a.
Cigarettes	millions	1,720	n.a.	n a.
Woven/cotton fabrics	million metres	43	n.a.	n.a.
Tires	'000	178	n.a.	n.a.
Motor spirit	'000 MT	184	203	231
Kerosene	" "	91	95	96
Distillate fuel oils	" "	270	271	329
Residual fuel oils	" "	382	402	394
Cement	" "	412	n.a.	n.a.
Aluminum (unwroght)	" "	133	152	157
TV receivers	'000	3	n.a.	n.a.
Electric energy	million kwh*	3,344	3,600	3,645

* - provisional

MINING

Mining production data is presented below:

Product	1972	1973	1974	1975
Gold ('000fine oz. troy)	724	729	614	526
Diamonds ('000 carats)	2,659	2,307	2,572	2,328
Manganese ('000 tons)	501	313	252	408
Bauxite ('000 tons)	535	349	357	n.a.

GROWTH OF MERCHANDISE TRADE

Merchandise trade, in millions of US dollars, was $ 1,304 for exports and $ 1, 266 for imports.

The average annual growth rate, expressed as a percentage, is detailed as follows:

	1960-1970	1970-1978
Exports	0.1	- 0.1
Imports	- 1.6	2.7

OTHER ECONOMIC FACTORS

Refer to the Appendix for a detailed analysis of economic and development factors.

ETHIOPIA

POPULATION

The population of Ethiopia is approximately 31,000,000 based on mid-1978 estimates of the World Bank. The average annual growth of the population for the years 1960 - 1970 and 1970 - 1978 has remained almost constant at 2.4 and 2.5 percent respectively. The hypothetical size of the stationary population is 139,000,000 and the assumed year of reaching a net reproduction rate of 1 is the year 2045, and the year of reaching stationary population growth is 2175.

LABOUR FORCE

The percentage of the population of working age (15 - 64 years) was 54 percent in 1960 and 52 percent in 1978. The percentage of the work force in the three main labour classifications, has shown a 7 percent shift from agriculture to industry and services as indicated below:

	1960	1978
Agriculture	88	81
Industry	5	7
Services	7	12

GNP

The Gross National Product of Ethiopia in the year 1978 was US$ 3,720 million with a per capita GNP of $ 120. The average annual GNP percent of growth for the period 1960 - 1978 was 1.5 percent.

The average annual rate of inflation for the years 1960 - 1970 was 2.1 percent and this marginally increased to 4.0 percent for the period 1970 - 1978.

GROSS DOMESTIC PRODUCT

The Gross Domestic Product, at factor cost by industrial origin, for the period 1972/73 in E$ million is presented below.

This is the most current available data to the UNIDO/ECA mission at the time of report prepartion

Agriculture, etc.	2,345
Agriculture	2,231
Forestry	109
Hunting	1
Fishing	4
Industries	748
Mining	10
Small industry/handicrafts Manufacturing	237
Building and construction	235
Electricity and water	40
Wholesale and retail trade	442
Transport and comm nication	256
Other services	852
Banking, insurance and real estate	76
Public administration and defence	270
Ownership of dwellings	180
Educational services	109
Medical and health services	35
Domestic services	63
Other	119
Total	4,643

OTHER ECONOMIC FACTORS

Refer to the Statistical Abstract Appendix for a detailed analysis of economic and development factors.

REPUBLIC OF ZAMBIA

(a) Population

Total population in 1976: 5,291 million: population growth rate: 2.9 per cent.

Economic situation

Per capita GNP in 1978: US$ 480: per capita GNP growth rate: Agriculture and livestock. 0.2 per cent.

Zambia's main crops include maize, millet, sorghum, sugar cane, potatoes, cassava, groundnuts, cotton and tobacco. The agricultural sector, with an annual production of 3 million tons, provides the country with most of its food requirements. The export of certain agricultural products earned the country 13 million Kwaches in 1978. Cow breeding is the most widely spread with about 1.5 million head a year out of a total of 2 million head of Zambia's livestock.

Mineral resources and mining industry

Zambia has important deposits of copper, silver, manganese, zinc , tin, gold, and cobalt. There are also deposits of coal, lead and gypsum. There are over 49 industrial establishments in the country engaged in mining and processing of the above mentioned minerals for export to the industrial countries.

Manufacturing industry

The following are the most important of the 598 manufacturing industries in Zambia:

- food, beverage and tobacco industries
- textile, clothing and leather industries
- timber and furniture industries
- chemical industries
- non-metallic mineral industry
- basic metallugry industry
- metal industry
- small handicraft industry

3.3 Economic impact of engineering companies on the implementation of industrial projects

It is noticed that foreign investments play a vital role in the public sector of the countries visited, except the countries like Algeria, Egypt, Nigeria and Tanzania. Indeed the major projects in those countries are financed by multilaterial and bilateral aids. With regard to pre-feasibility and feasibility

studies, the donor countries use the services of the consulting engineers of their choice. The services of the consulting engineer are included in the cost of the project, his salary, honororium, housing, transport and medical bills are borne by the company which employs him.

Big foreign companies which negotiate and get funding either from inter-national financial institutions or from their respective countries to operate in Africa are protected and assisted by the institutions that finance them.

Before granting the funding the financial institutions ascertain from computer which has the data bank of all engineering companies capable of carrying out prefeasibility and feasibility studies on a given project. On the basis of the computer's feed back the beneficiary of the funding decides in which country to operate and begins its prefeasibility and feasibility studies leading to the implementation of the project. There is no doubt that the engineering company that will be proposed by the computer will be a foreign one. This is because African engineering companies do not have the means to make themselves known on the internationl scene. Engineering companies of the industrialized countries form an intergral part of the companies that operate in Africa. This explains why the African project market is the preserve of these companies.

It can be seen, therefore, that it is not by accident that specific projects to be implemented in African countries are not conceived by African governments. Neverthelees, it is true that African governments carry out sectoral surveys with a view to identifying the various problems facing each industry. In other words, the surveys cover such areas as the total number of existing industries, the difficulties these industries face and how they can be overcome, how to improve productivity and ensure a steady functioning of the marketing circuit.

In the African Ministries of Planning there is a department responsible for study for industrial development. This constitutes a funding source of many African engineering companies. It is hoped that these companies will in future handle industrial development projects in Africa. Meantime, we know that investers in industrialized countries conceive their projects,

obtain funding from the sources of their choice, carry out their prefeasibility and feasibility studies, get authorization to operate in the African countries of their choice and later have the right to free transfer of industrial profits.

African engineering companies are never consulted by foreign promoters who always use the problems of lack of skilled manpower as an excuse. This is a lame excuse since they do not want African engineering companies to take part in project preparation. As we have said earlier on foreign engineering companies which consider industrial development projects in Africa as their right, prevent African engineering companies from being awarded projects. What is more they are less interested in training Africans in projects preparation which includes pre-feasibility and feasibility studies and negotiations leading to the signing of contract.

Thus, the African engineering companies have yet to have any significant impact on the implementation of important industrial projects in Africa. Today there is no doubt that foreign investers in Africa have a great influence on non-African engineering companies.

Industrial Consultancy Activities in Africa are estimated to correspond to 6000 man years in 1981 roughly subdivided as follows:

	Man/years
Investment related activites	3,500
of which prefeasibility and feasibility studies	1,750
of which construction engineering etc(finance procurement and others)	1,750
Auditing, accounting and financial management	1,500
Management consultancy proper	500
Other Industry related consultancy activities (real estate, brokerage, etc)	500

Including company internal and independent organizations, expatriate, mixed and international organizations, private and government organizations, there are approximately 1000 consultancy organisations in Africa. It is estimated that approximately 200 of these are government units or parastatal bodies. Of the remaining 800, approximately 450 may be national subsidiaries or expatriate firms or mixed companies with an expatriate majority.

An effort has been made to compile the economic data for certain representative countries like Tanzania, Rwanda, Sierra Leone, Zimbabwe, Sudan, Uganda and the same may be seen in the Appendix.

IV. RATIONALE FOR ESTABLISHMENT OF CENTRE

4.1 The Rationale

The experience gained by the various African States in the endeavour towards industrialization in the recent past has proved beyond doubt that transplantation of industrial concepts, technologies and designs - however good and successful elsewhere - did not automatically imply equal success in Africa. This has automatically lead to the axiom that optimal results from industrial development can only be achieved if it is ensured in the stage of macro planning and conception of projects to take due note of the local environment and where technologies and techniques have to be imported the same should be appropriately altered and adjusted to suit local circumstances.

As already discussed, the implementation of the Lagos Plan of Action entails massive investment. The Heads of State and Government have declared the years 1980 to 1990 as the Industrial Development Decade for Africa and set as targets for African Industry to achieve a 2 percent share of world industrial output by the year 2000 with interim targets of 1 percent until 1985 and 1.4 percent until 1990 compared to the present share of around 0.8%

To achieve this massive increase in industrial production new industrial projects involving heavy investments have to be established and the optimisation of the existing investments have to be undertaken in order to increase their productive capacity. This would call for tremendous efforts and streamlining of the Consultancy and Industrial Management Services existing in Africa in order to ensure establishment of industrial projects in tune with meeting socio-economic goals and aspiration of the masses.

There is a growing recognition of the fact that the economic development process should not be left to the vicissitudes of economies and global vagaries of historical exigencies but be brought about through a deliberate endeavour directed towards fulfillment of the socio-economic aspirations of African countries and improvement of living standards of their people. The process of industrial development has become so complex that co-ordinated planning, appropriate technological inputs and rationally designed effective strategies for implementation, are sine qua non for realisation of the desired goals and consultancy organisations have to provide these inputs to ensure appropriate solutions.

The most optimum solutions differ widely from the ones evolved in developed countries and sophisticated technologies incorporating high degree of automation in plant designs and involving highly sophisticated equipment and production techniques intended for mass production more suited to developed countries' environments do not provide an optimal solutions for countries in Africa. Even in the case of countries, the factor endowments of which do not have some of these constraints high level technologies are not always consistent with their skill and other technological infrastructure. Moreover, in the African countries industrialisation cannot promote growth unless it is carried out in conjunction with a serious effort to advance agricultural development, and, above all, it must take place within a community perspective rather than within the narrow confines of national action. The real problem of Africa is to find out ways and means of ensuring that use is made of its substantial potential for development thus resulting in forging ahead of a highly structured Africa so that it can play its proper role in world affair. This goal cannot be achieved within the outmoded frame-work of micro States acting on their own initiatives. African States must recognise that "divide and rule" philosophy not only applied in colonisation but it equally applies in the sphere of industrial development.

The African countries are endowed with diversified, and in many cases, bountiful physical resources. Bulk of their agriculture, mineral and forest resources have, however, not been fully exploited for processing within these countries. One of the main reasons for this state of affiars is the deficiencies in technological capability and Industrial Consultancy Services, inadequate financial resources and markets of the individual countries which have prevented the African countries from processing a bulk of such resources and compelled them to resort to exporting the same in unprocessed form depriving them of the benefit of added value and employment opportunities which is very crucial. At the same time, African countries, among themselves, have technologies, Industrial Consultancy Services, financial resources, manpower and managerial capabilities to process such resources and also have the captive markets to absorb the final products collectively. This provides wide scope of complimentarities among the African countries for better utilization of their valuable physical resources and Industrial Consultancy Services for their economic advancement and achieving collective self-reliance.

This automatically leads to the postulate that for achieving rapid growth, Agriculture and Industrial projects have to be planned on a multi-national basis to exploit the indigenous raw material resources and cater to the extended demands of end products of more than one African country thus enabling establishment of more economically viable projects with easy outlets.

In the absence of local consultancy organisations and/or collective regional organisation the foreign consultants, who are mainly motivated by financial gains, have emphasised national approaches rather than multi-national approaches. In the process they have accumulated some local experience and also trained their own manpower to be deployed in other nations. The reliance on these foreign consultants has

not only robbed Africa of an excellent opportunity of training their own manpower but also of vital data and collective self-reliance of the African Community as a whole. Recently, however, there are some efforts made by various national governments to encourage local consultancy organisations. On the other hand, there is lack of an organisation which can pool together the capacities and capabilities existing in the African countries by providing a total package of Consultancy and Management Services, and at the same time, provide complimentarity among African countries essentially based on the premise that each country should concentrate on the areas of its strength by virtue of the resource endowments and deployment of technological strengths in a manner which will lead to maximum mutual benefit.

The developed countries appear to have been directing some of their wealth to the African countries in forms of Aids generally in the traditional unchanged and unchanging international economic order. Both the original concept of 'aid' or 'development assistance' and its implementation through expertise, training and equipment also followed movement of these resources from an ever more closely linked and ever more wealthy group of developed nations to the under-developed and relatively poor African countries. These new processes as we know, by no means ended dependency relationships - indeed in many instances, they reinforced them and encourage the importation of models of development in Africa that were not always appropriate and sometimes have retarded true progress. The quest for attainment of a New International Economic Order necessitates technical co-operation among African countries, and establishment of the Centre would be one of the vehicles to promote this objective. The Centre would help African countries to organise, increase functional contacts and co-operate among themselves in order to pool, share and exchange development experience, techniques, ideas, skills and technology to achieve national and collective self-reliance.

The process of industrialization has proved the hypothesis that technical support services and institutional infrastructure are very important and critical to ensure smooth developmental process. This assumes greater relevance in the case of African countries which are generally faced with the constriaint of limited resources in the content of their aspirations linked with an accelerated pace of economic growth.

Some of the African countries have already established institutions for rendering Consultancy and Management Services to provide the necessary expertise and inputs required for the development programmes. The facilities available to foster rationally designed balanced growth in conformity with national priorities and policies vary considerably from country to country in terms of the sectoral coverage, areas of specialisation, competence, strength and levels of expertise. However, it must be emphasised that most of these institutions are either managed by professionals from developed countries or are operating as subsidiaries of International firms. All the same, the firms have acquired sufficient experience by virtue of their having carried out local assignments and have the capacity to offer services relevant to the local environments. Besides, catering to their own requirements of Consultancy and Managemnet Services, some of these countries possess capacities and capabilities to assist other African countries.

However a number of organisations in Africa have developed the capacities and capabilities for rendering Industrial Consultancy Services for the developmental projects in recent years and are capable of evolving soultions in conformity with the local environments. Inspite of this, resort is made to acquire such services from foreign consultants at much higher costs* even if the same are available from indigenous sources. In the wake of present development of such services in Africa, mutual co-operation based on collective self-reliance will help

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* See Appendix 5

to bring about a conceptional and qualitative change in the usual 'donor-recipient' type of relationship prevalent hitherto between the developed countries and the African countries. The Centre is expected to fulfil the gaps and become an effective instrument for acclerated growth of technological competence as also the proper development of their profession in the country.

However, some countries due to their small size and resources and other diverse factors, endogenous and exogenous, have not been able to develop their own Consultancy and Management Services. It would be pertinent to add here that none of the countries is at present in a position to cater fully its requirement of Consultancy and Management Services from indigenous resources.

The creation and build-up of Consultancy and Management Services required to support and foster rational, economical and speedy developement involves deployment of considerable physical and fiscal resources, the development of suitably skilled manpower and long gestation periods for attaining maturity. It would therefore, be a rational and realistic approach if use could be made by the countries who need such services from the other African countries who are in a position to render such services specially in view of the fact that such services would result in solutions more appropriate to the local environments and would probably cost less in view of geographical proximity and other related factors. The nature of such co-operation would involve not only joint working on various projects, but also developing simultaneously local capacities and capabilities and institutions of the type and to the extent these are feasible to fulfill the needs of a particular country.

In the past, African countries had to resort for procurement of Consultancy and Management Services for a large number of their projects since the same ingredients of comparable quality standard were not available indigenously or from other African countries.

While the total expenditure of time and money relating to the planning and engineering activities which precede the actual construction and installation of equipment in a project to make it operative may be a relatively small proportion of the total outlay, insufficient attention in detail - generally arising out of inadequate knowledge of local circumstances and solutions evolved without taking into consideration local environments - leads to results considerably at variance with expectations. Not only are certain essential infrastructures for industrial development generally inadequate, but the environmental influences and conditions in African countries are largely different from those in which new industrial investments are made in advanced countries. Only local professionals are most familiar with local circumstances and the various environmental influences which affect the optimisation of a techno-economic solution for an industrial enterprise. Therefore, it is imperative to strengthen the existing consultancy organisations and increase their capacities and capabilities by pooling of resources and the time is now opportune to create the Centre which will fill the gaps and provide a pakage of Services for development projects. This will not only ensure better utilisation of their capabilities and capacities, but will also help them to interact with other developing and developed countries in the world on a more equitable and effective basis. Further it will result in building up national and collective self-reliance and also reduce their dependence on foreign countries outside Africa.

It may be mentioned here that laudable efforts have been made by ECA/UNIDO towards pooling of resources and sharing of knowledge amongst African countries. A Study was carried out by ECA in 1978 (Study No. M77-1255) which lead to the formation of Association of Consulting Engineers in West Africa (See Annexure 4). Such associations also exist in Nigeria, Kenya, Zambia and certain other African countries.

As already mentioned in Section 1, the Centre for Technology exists in Dakar, Senegal, African Regional Centre for Engineering Design and Manufacturing at Ibadan,

Nigeria; High Technical Training Centre at Nairobi and a number of other institutions closely connected and needed for the speedy development process. It may further be added that in the process of industrialization a reserviour of technical knowledge, skills and expertise has been built in various African countries but the capacities and capabilities that have been developed have not been fully shared or pooled amongst themselves. Some projects have been undertaken in this direction by certain institutions and countries and it will not be out of place to mention that the results have been encouraging. What is required is to make organized efforts in this direction, and the efforts can take the most effective direction by the creation of a coordination agency and therefore, the fifth Conference of African Ministers of Industry which was held in Addis Ababa Ethiopia from 17th to 20th October, 1979, very rightly recognised the importance and urgency of establishing a Regional Centre for Consultancy and Management Services. The establishment of the Regional Centre will be most useful in facilitating access to and in the promotion and acceleration of the use of existing and potential technical expertise, vast knowledge of industrial development amassed in recent years and technological resources and also promotion of multi-national projects based on complimentarity of resource endowments by the African countries, thus enabling forging of unified and strong ties for mutual benefits.

The technical contributions of other developing and developed countries, wherever, necessary, are not precluded in this concept of co-operation envisaged in the proposal of creation of the Centre and may indeed be utilised on a selective basis in the spirit of mutual inter-dependence of nations. The Centre is expected to play the role of catalytic agent amongst the existing institutions and is expected to work towards their rational growth and thus enhance the absorptive capacity of African countries for technical and other inputs from sister developing and developed countries. It may thus be emphasised that there is everything to be gained and nothing to be lost by harnessing these resources effectively, both in the interests of African countries and, indeed, in the larger interests of the world community.

In conclusion, although the idea of creating an African Regional Management Centre has been discussed between ECA and UNIDO earlier, the present envisaged centre would have a broader role to play. Specifically it will help to enhance the following:

(i) the growth objective for African industry as stated in the Lagos Plan of Action.

(ii) the substantial investment requirements to achieve this growth objective accompanied by the necessity to streamline new and existing industrial operations and prepare a large number of relevant personnel.

(iii) the role of consultancy and management services in expanding industrial environments.

(iv) the efforts of existing national organisations and reduced dependence of African countries on costly outside services while the existing local talent is often not effectively involved.

(v) the potential of a well managed Regional Centre to respond to the problems identified and thereby achieve the objectives mentioned below.

4.2 General Development Objectives

The Centre as an African Regional Institution will pursue:

- The accelerated growth of national economies in Africa fostering the expansion and productivity of local industry.
- A continuously increasing degree of national, sub-regional and regional self-reliance based on adequate industrial consultancy and management capacity.

4.3 Specific objectives

Specifically, the Centre will aim at:

- Complementary consultancy and industrial management services, where national or subregional centres cannot provide the services required.

- Initiating subregional and regional consultancy and management services activities which are beyond the scope of national and subregional organisations.

- Providing supporting services to national and subregional bodies, in particular, through information services based on research and exchange, the arrangement of mutual consultations, the organisations of specialized training programmes, the establishment of consortia and joint ventures through an effective promotional programme to raise the status and involvement of African consultancy organisations in the individual development of their countries, thus ensuring their prosperity and growth.

4.4 Detailed objectives

The detailed objectives of the Centre are envisaged as follows:

(i) To assist African countries in laying the foundation and promoting accelerated, rational and integrated development of CIMS in Africa to meet the objectives of rapid and rational industrial development.

(ii) To promote collaboration among existing consultancy organisations in Africa to strengthen their joint capacities and capabilities by adopting consortia approach thus enabling implementation of large national and multinational projects not within the capacities and capabilities of existing national organisations.

(iii) To increase the credibility of indigenous consultancy services by pooling of resources specially to meet the requirements of national, African and international funding agencies.

(iv) To help the countries in locating suitable agencies for rendering consultancy services for rational, economic and effective implementation of their development programmes.

(v) To assist in determination of the extent of consultancy requirements for developmental programmes and industrial ventures.

(vi) To have close interlinkages with subregional centres and national consultancy organisations to offer complete package of services to the clients for their developmental programmes and projects.

(vii) To assist in identifying the technological needs of the African countries and to suggest suitable means to achieve the goals of national and collective self-reliance.

(viii) To promote growth of technical and managerial skills in a rational manner by arranging seminars and training courses to keep the professionals abreast with latest techniques and innovations in the field of Consultancy and Industrial Management Services.

(ix) To facilitate pooling and exchange of technical know-how and expertise among the African countries for providing necessary technological inputs for conceptualisation, development and implementation of the developmental programmes and projects, both at macro and micro levels.

(x) To provide technical assistance to the countries in preparation of terms of reference and evaluation of offers submitted by various consulting engineering firms.

(xi) To collect, analyse, document and disseminate country data and information regarding the industrial and technological capabilities, capacities and competence availabe in various African countries in the field of CIMS and related institutional facilities available.

(xii) To keep an up-to-date record regarding performance of various consultancy firms operating in Africa in order to ensure proper evaluation of the offers for new projects and to help in improving the terms for acquisition of the services and also to maintain a library of consultancy reports.

(xiii) To establish close links and coordinate interactions with various international agencies and organizations with a view to strengthening and enhancing their participation and flow of global assistance in development programmes of the African countries in a manner aimed at meeting the socio economic goals and aspirations of the people.

(xiv) To encourage legislative actions of governments in regard to registration of professional consultants and participation of local consultants in projects assigned to foreign consultancy organisations.

V. OUTPUT AND ACTIVITIES OF THE CENTRE INCLUDING SCHEDULING

5.1 Output and activities of the Centre

5.1.1 General duties

In the light of the existing scenario of industrial consultancy management services in Africa, the Centre will in fulfilment of its objectives, assume the necessary supportive and catalytic role. The accomplishment of this task will involve the organisation of a user-oriented system encompassing multiple exchanges of technical expertise and technological services. This will in turn require a regional network of information exchange among existing national and subregional institutions and the Centre itself and a sound information, collection and dissemination mechanism responsive to the needs of African countries.

Keeping the basic concept and objectives in mind, the general tasksof the Centre are visualized as specified below:

(i) To take inventory of existing institutions rendering industrial consultancy services covering all sectors of economic development and areas of specialization in Africa and to function as a registry of such institutions and agencies;

(ii) To function as a registry of various R & D organizations, standards institutes, management institutes and other allied institutions relevant to the industrial consultancy services;

(iii) To compile a roster of experts in Africa, developing and developed countries capable of rendering industrial consultancy services for the various developmental projects;

(iv) To identify, evaluate and assist in the selection of suitable consulting firms from amongst the prospective firms in Africa for undertaking assignments and for providing services relating to:

(a) Development planning such as surveys of requirements, physical resources and techno-economic industrial surveys;

(b) Studies relating to area and sectoral development including identification of prospective projects;

(c) Market, locational and other specialized studies;

(d) Pre-feasibility and feasibility studies;

(e) Technological, economic, commercial and financial appraisal of projects;

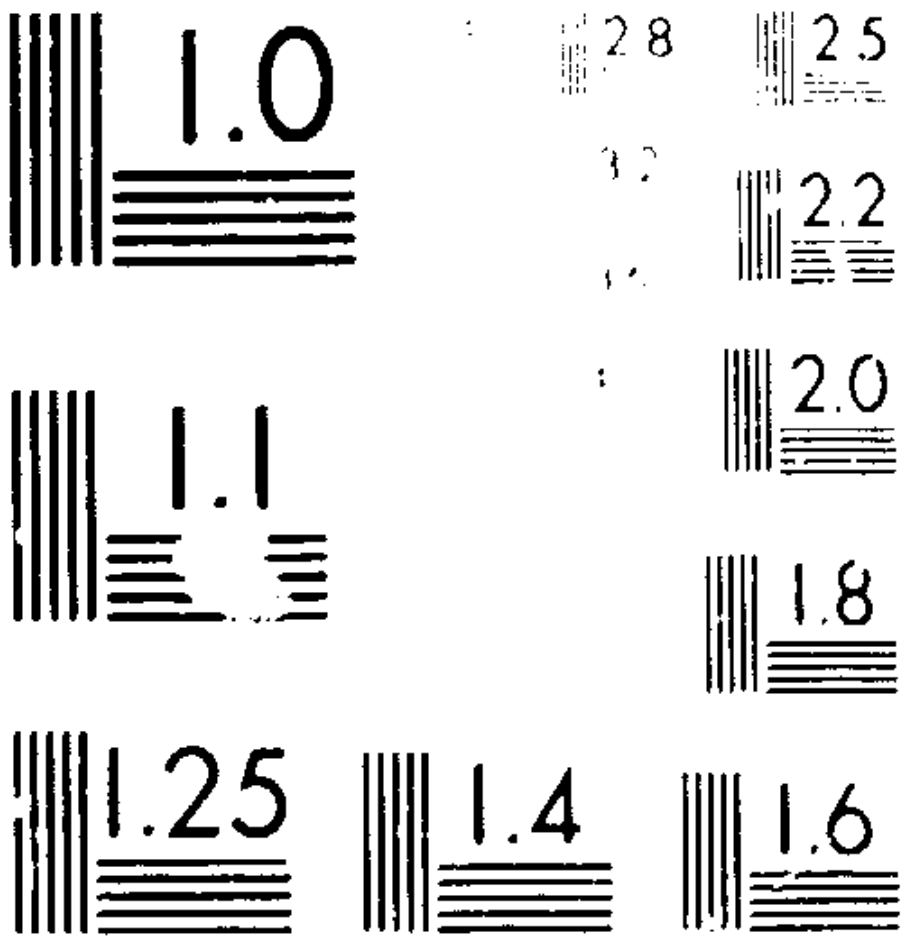
(f) Project design and detailed engineering drawings;

(g) Terms of reference and invitation of tenders for procurement of equipment and construction works; evaluation of bids or of contractors works etc.;

(h) Project implementation and management services including construction and erection supervision and commissioning;

(i) Plant optimisation studies including technology analysis, upgrading of products, product mix optimization, diagnostic studies for plant operational improvements, diversification studies, etc.

(j) General management consultancy including corporate planning, organization etc.;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(v) To establish effective links with existing institutions connected with industrial consultancy activities in order to ensure a continuous flow of information and technical assistance to the countries;

(vi) To assist in identifying large multinational projects with capacities beyond national market requirements, especially in such basic areas as metallurgy, foundry, chemicals, etc. with high investment costs directed to exploit indigenous raw materials and taking advantage of complementarity of resource endowments; arrange for provision of requisite industrial consultancy services by forming of consortia of suitable organisations in Africa under the aegies of the Centre and arrange for induction of services from other developing or developed countries on a selective basis to fill in potential gaps and thus ensure the successful implementation of projects;

(vii) To assist in the identification of manpower development and training needs of professionals engaged in the field of industrial consultancy services in order to keep them abreast with latest innovations and its techniques and in organizing the same through assistance of suitable organizations in Africa;

(viii) To assist in the procurement of appropriate technologies best suited to local environments, supplement indigenous capabilities with imported technologies where feasible, negotiating effectively on reasonable terms for procurement of process packages and licensing agreements and for their adaptation and optimum utilization;

(ix) To provide assistance in location and induction of specialized expertise and technical manpower from developing countries to meet the requirements of specific projects;

(x) To keep a track record regarding performance of various consulting engineering firms from African countries, developing countries and developed countries operating in Africa and to provide information on suitable sources in such countries for acquisition of technical know-how, expertise and other technological inputs for which adequate capacities and capabilities are not available in African countries and to help in improving the terms of acquisition of the same and for horizontal transfer among African countries;

(xi) To assit entrepreneurs in African countries in negotiating contracts and make agreements for procurement of industrial consultancy services, process know-how and technological expertise on a more rational and logical basis in consonance with the local environments and conditions;

(xii) To act as a catalytic agent for a freer and more effective flow of industrial consultancy services among the African countries and keep a track of the same;

(xiii) To evolve standard agreements and terms of reference for procurement of industrial consultancy services incorporating such terms and conditions as are liable to safeguard and ensure fulfilment of contractural obligations and services;

(xiv) To publicise the success stories of the various national and multinational projects carried out individually or jointly by African countries;

(xv) To develop close interlinkages with African Development Banks and other financial institutions to identify resources and to help meet their requirements in regard to bankable feasibility studies and other consultancy services;

(xvi) To collect, analyse, document and disseminate information on available technical services, institutions, technological know-how and expertise including alternate products, production processes, machinery and equipment;

(xvii) To assist African governments in the realization of integrated developmental programmes at national, subregional and regional levels and in structuring their national consultancy organisations or networks to suit the development requirements;

(xviii) To provide information regarding available production capacities in different African developing countries before planning new investments and new capacities in various sectors in order to ensure integrated and co-ordinated developmental efforts;

(xix) To arrange for transfer of information and solution to operational problems in specific sectors by arranging visits to similar plants in Africa;

(xx) To identify and update information on areas of technical know-how and industrial consultancy

services for which adequate capacities and capabilities are not available in African countries and to collect, disseminate and update information on such sources in other developing countries and developed countries;

(xxi) To establish close liaison with various international organisations and agencies in the world with a view to securing their support and assistance for development programmes of the African countries at national, sub-regional and regional levels; international organisations should provide the Centre with detailed information on relevant technical assistance activities in Africa;

(xxii) To collect, retrieve, process and store relevant information and data on developmental characteristics and parameters of various African countries;

(xxiv) To prepare "Project Profiles" for specific industries to assist the African countries in evolving their developmental plans and project concepts incorporating general data and information on such aspects as minimum economic size of operations, appropriate technology and production processes, requirements of major raw materials, utilities and services, manpower requirements, major production and auxiliary equipment, levels of investments and broad indication of production costs and other techno-economic parameters;

(xxv) To evolve and disseminate standards regarding fees charged by individual organisations for various industrial consultancy services in order to reduce the time for negotiating individual projects;

(xxvi) To act as a forum for national institutions by bringing them together in workshops to exchange experiences in carrying out developmental projects and to encourage participation of personnel from other developing countries and developed countries to such workshops for mutual benefit;

(xxvii) To secure information concerning problems encountered in the establishment and operation of organisations rendering consultancy and industrial management services in other developing countries and make available the same for such institutions in Africa to avoid such pitfalls.

5.1.2 Sectoral coverage

The wide spectrum of industrial and economic activity in the African countries and the attendant needs of technical know-how, management services and other technological inputs pose a challenging task to the Centre and call for careful planning and efficient organisations of its operations. The Centre will have a dynamic role to play in the African industrialization process in particular with regard to the new industrial facilities to be created throughout Africa and making optimal use of existing investments. The priority areas for such industries have been clearly spelled out in the Lagos Plan of Action as well as the various measures to be adopted at the national, subregional, regional and international levels to achieve the targets envisaged. The Centre will basically concentrate on these identified priority areas in the beginning. The demands of African countries in the field of industrial consultancy and for fulfilment of their economic development programmes arise essentially out of their socio-economic goals to raise the living standards of their people making available to them their basic needs at acceptable costs and fuller utilization of their natural, physical

and human resources by establishing new projects and making effective use of the existing investments. The Centre will thus have to provide industrial consultancy services both for the small-scale and rural industries aimed at maximising employment potential as to the large national and multinational basic and other industries taking into account resource endowments of the different countries and potential subregional markets thus stimulating multinational co-operation among African countries consistent with one of the main industrial objectives of the Lagos Plan of Action.

The sectors and functional areas to be covered by the Centre are as follows:

1. Agro-industries
2. Capital equipment industries
3. Chemical industries
4. Industry related supporting services like industrial estates and other infrastructure development, materials handling, warehousing, and financing etc.

5.1.3 Scope of Services

As the basic function of the Centre is one of support to existing national and subregional organizations its interlinkage with these is conditio sine qua non for its success.

The mission during its visit to various African countries and discussions with many consulting organizations developed the view that some of the organizations have done commendable work and have the capacities and capabilities to undertake consulting services for complex projects. However, there is a tendency amongst the users of such services

to resort to foreign consultants as there is a feeling that safe and appropriate solutions cannot be found within Africa probably due to a lack of awareness of the capacities and capabilities available with the region. Inspite of this generally prevailing attitude, the pioneering spirit amongst the professionals engaged in this field and their faith that appropriate solutions can be developed by them has kept them in the business inspite of these difficulties. An important task to be achieved by the Centre is creating an environment conducive to increasing the use of such services offered from within Africa and the credibility of African consultancy orgainzations.

To fulfil this objective the Centre, besides collecting comprehensive data on organizations, their fields of specializations and capabilites, will disseminate such information publicizing whatever success stories may be of interest to other potential users within the region. The Centre will thus assist the African countries in achieving the goal of collective self-reliance in the fields of industrial development in general and industrial consultancy specifically.

The scope of services to which the Centre will address itself and which will be mobilized by it are:

(i) Economic Consultancy Services

Surveying and prospecting of natural resources, techno-economic surveys for economic development, determination of industrial potentials, evolution of regional and sectoral development plans, reviews and appraisal of entrepreneurship and investment climates, study and appraisal of industrial and economic institutions and evaluation of feasibility of economic and industrial development programmes at macro and micro levels;

(ii) Pre-investment or Project Planning Services

Preparation of opportunity studies, project profiles, feasibility studies and project reports including market surveys, demand analysis, etc. leading to investment decisions; choice of appropriate technology, its acquisition adaptation, pilot plant and laboratory testing of materials and processes; project evaluation studies and financial arrangements for project implementation.

(iii) Detailed Design and Engineering Services

Detailed engineering and construction drawings for civil works, process and auxilliary departments, preparation of tender bids, tender invitation and evaluation of bids and advice on selection of equipment and their suppliers and contractors, plant layouts, detailed equipment layouts.

(iv) Process and technological Consultancy Services

Manufacturing processes or technologies, basic designs, methods of production, flow sheets, material balances and product designs;

(v) Project Management Services

Construction Management Services and site supervision, materials management, preparation of detailed time schedules for construction and erection works, monitoring and updating of schedules, detailed manpower requirements for construction and operation, job specifications and job descriptions, selection of personnel, training and human resource

development, programming of finance, manpower, construction materials and equipment deliveries, inspection of equipment and supervision of construction and erection, start-up commissioning and initial operation of the plant, operational procedures and management information systems.

(vi) Management Consultancy Services

Investigations for optimization of existing industries, production, technology analysis, upgrading of products and suggesting alternative product lines, capacity utilization, plant modernization, rehabilitation, expansion and product-mix optimization and diversification studies, diagnostic studies for plant operational improvement, development of corporate strategies and plans for achieving optimum results, operational research and work study.

In all of these activities, the Centre will develop its own specific data base, know-how and dissemination and promotion capacity to benefit existing institutions within the region.

5.2. Phasing of Outputs and Activities

Phased over a five-year period, the outputs and activities of the Centre will be as follows:-

5.2.1 First Phase (first and second year)

Outputs

(i) Establishment of a Data Base comprising the following elements:

- An inventory of all national and subregional consultancy and industrial management services institutions with details on their major

activities, (prefeasibility and feasibility studies, construction engineering, auditing and financial administration, general management consultancy, technological specializations, number and specialization of professional staff, institutions or companies served, geographical coverage).

- An inventory of all major feasibility studies and planning work carried out within the region in recent years identifying the institutions and experts having carried out these studies.

- An inventory of industrial know-how and equipment suppliers from outside (and inside) Africa with price, quality and - where available - performance assessments.

- An inventory of competent non-African specialists available for work within the region - i.e. mainly international experts with a good performance record in Africa.

- Market information particularly of those industrial markets mentioned in the Lagos Plan of Action. This information will be sufficiently detailed to serve as a reference for prefeasibility work within the African countries and sub-regions. This information will include details also on the potential export markets outside of the region, their size and conditions for expansion.

- A consolidated inventory of the industrial section of the national development plans of Africa.

- An inventory of all international technical assis-

tance projects related to industrial development in Africa including the expert requirements in each one of these projects.

(ii) Four in depth country studies - possibly in the countries where subregional centres are located - to identify complementary action which could be initiated by the regional centre in co-operation with the sub-regional and national centres.

(iii) Three regional consultation meetings on such subjects as - contracting, know-how and equipment supply including contract formats, negotiation methods etc.; - sector specific development plans in Africa to identify information and consultancy requirements, suppliers etc.; - a framework for promoting industrial consultancy within the continent using modern methods of public relations and presentation of consultancy work.

(iv) Establishment of a quarterly publication (starting the second year) introducing the regional centre to all affiliated organisations indicating the information available, the services to be performed and giving details on outstanding national, subregional and regional activities and events of common interest. (Initially 500-1000 issues to be mailed to government departments and all consultancy and management organisations identified).

(v) Initiation of an industrial enquiry service covering market and technological information and assisting in the search for required expertise (1½ years after initiation of the Centre).

(vi) Three consultancy projects on a national or subregional scale, where inputs beyond the locally available resources are required. Assistance in the establishment of the respective consortia.

Activities

The activities leading to the above outputs will be the following:

(i) A detailed mail survey directed to competent national and regional governments and institutions complemented by visits to regional and selected national organisations.

(ii) Request for information followed up by visits to all those international organisations likely to possess background material required for the data base.

(iii) Setting up the data base itself according to modern standards applicable to information and documentation circles.

(iv) Prepared visits of 3-4 weeks duration each for in depth country studies to identify complementary action in consultancy.

(v) Planning and organisation of consultation meetings.

(vi) Setting up publishing facilities for a quarterly publication and information circulars.

(vii) Establishment of formal agreements with information sources such as the regional center in Dakar with a direct and continuous linkage should be established to strengthen the industrial enquiry service. Establishment of a rapid information retrieval system within the content of point (iii) above. Establishment of direct contacts with all further potential sources of industrial information inside and outside Africa to ensure rapid information assistance whenever required.

(viii) After identification of subregional or national consultancy projects beyond the scope of local resources, co-ordination of the required activities leading to the formation of a consortium able to cover all aspects of the assignment in question.

5.2.2 Second Phase (Third and Fourth year)

Having developed its data base and initiated its research, consultation, publication, information and consultancy activities, the Centre will now also cater into a dynamic promotional programme of its services including also training co-ordination among its chief activities. In detail, its outputs and activities will be as follows:

(i) One hundred existing project profiles within the UN system and other sources updated, adjusted and disseminated to partner institutes to suit industrial consultancy requirements.

(ii) Within the region four in depth country surveys.

(iii) Model license agreements for 3 industrial sectors, guidelines on negotiating contracts in the form of a manual, suppliers lists for specific process equipment and know-how including specialization and competitiveness based on first-hand as well as second-hand experience in at least six industrial sectors.

(iv) Twelve extensive project descriptions of potential common interest within the region normalized and generalized using as a basis successful industrial projects.

(v) Four regional consultation meetings to exchange specific experience, to decide on common strategies and to elaborate new approaches to industrial development.

(vi) In addition to the quarterly and regular circulars a well publicised document dissemination service,

(vii) Three multinational consortia for carrying out large scale assignments.

(viii) Capital procurement assistance to 12 industrial investment projects.

(ix) Provision of supplementary consultancy inputs to 24 national or subregional consultancy projects.

(x) Assessment of up to 24 consultancy assignments carried out for governments or public or private institutions. Such assessments will assist the respective bodies, institutions or companies to decide on alternative solutions, to renegotiate, to rescind or to modify existing arrangements. The regional center's assessment of a consultancy assignment could become an arbitration clause in consultancy contracts in Africa.

(xi) Four distinct regional seminars repeated once or twice on such subjects as public sector industry performance improvement, consultancy methodology, small scale industries promotion, managerial systems for small and medium sized companies etc..

(xii) A compartive analysis of industrial development plans throughout Africa to detect potentials for mutual support, overlaps or missing elements within the region or subregions, and to enhance diversification and complementarity by promoting additional technologies.

The activities leading to the above outputs will comprise of those listed under phase I above in addition to which will be:

(i) Substantive activities devoted to the adjustment of existing documents and to the elaboration of new guidelines and manuals.

(ii) Enhanced promotional activities using modern methods of public relations.

(iii) Arbiter activities in assessing the work carried out by African Consultancy Firms.

(iv) Preparatory activities to establish an industrial planning capacity within the Centre.

5.2.3 Third Phase (fifth years)

Outputs and activities in the fifth year of operation of the Centre will include in addition to all other activities described under phase 2 above, advisory services to individual governments and sub-regional and regional organizations on optimization possibility in industrial planning.

In Africa, Consultancy and Management Services Market is essentially related to the development budgets of various countries. It is estimated from the various development plans that extend over five years, African countries will be spending over $500 billion on development. If it is estimated that 10 percent of this amount will be spent on all types of consultancy fees (including plant procurement and installation), this means approximately $ 50 billion i.e. approximately $10 billion per annum. The new Regional Centre should be able to earn within the five years i.e. period upto 1985, say 5 percent (this may appear to be on the low side, but one has to be reliastic), which will be approximately $25 billion, over the five year period.

5.2.3.1 Industrial Consultancy

In particular, there are estimated 6000 man years spent on the basic categories of industrial consultancy work every year in Africa, corresponding to approximately US$500 million. The largest share of this is related to the implementation of new investments followed by financial administration, accounting and auditing. Only about 10% of Industrial Consultancy or 600 man years is devoted to direct managemnet assistance in the fields of Industrial planning and corporate planning.

A more detailed breakdown results in the following estimates:

		Estimated 1981 Figures
1. Investment related Consultancy		4,000 man years
of which feasibility and pre-feasibility studies	1,500	
of which Construction engineering in factories	1,500	
of which specialized know-how assistance	1,000	
2. Financial management, Accountancy, Auditing		1,400 man years
3. Industrial Planning, Corporate planning, productivity improvement		600 man years
		6,000 man years

In addition to this, there are a large number of consultancy activities of mainly a brokerage character like real estate firms, agents, etc. Beyond the industrial consultancy activities, there are regional planning, agricultural, mining, education and cultural

advisors etc. which are expressely excluded from consideration in relation to the African Regional Centre for Consultancy and Industrial Management Services.

The activities of the Regional Centre will be directed to the three main groups mentioned above strengthening the national and linking the sub-regional institutions and organisations through identification of obstacles to industrial development and consultancy requirements in individual countries providing a network of information and mutual support to the individual consultancy organisations and linking the existing subregional institutes.

VI. LOCATION AND INTERLINKAGES WITH SUBREGIONAL CENTRES, NATIONAL CONSULTANCY AND OTHER ORGANISATIONS, AND ORGANISATIONS OUTSIDE AFRICA

6.1 Location of the Regional Centre

The Nigerian Government has offered to provide the office facilities for the new Regional Centre within the same premises as those used by ARCEDEM in Ibadan. Although not all of the criteria considered for the choice of location for such a centre are met, the required facilities are immediately available and this will justify the choice of the location at Ibadan, Nigeria.

6.2 Interlinkages with Subregional Centres

The following four countries are seen as suitable locations for subregional centres: Egypt, Kenya, Senegal and Zaire. The role for becoming the subregional focal points of the regional centre will be assigned to existing national or subregional organizations within the respective countries in consultation with the Ministers of Industry of the member countries within the subregion. Subregional centres will cooperate with the regional centre. They will also carry out specific survey coordination or project assignments on the basis of sub-contracts to be concluded on a case by case basis. There will be no continuous staff or budget allocation by the regional centre to any of the subregional centres until the volume of activities justifies such continuous allocations. The cooperation between the subregional and regional centres will be evaluated on a year by year basis and the management board of the regional centre may recommend to the governing council an alternative organization within the subregion if the working relationship between the centres does not produce the desired results or if the impact of the subregional centre on the consultancy development within its region is not sufficiently strong. The governing council will then decide to submit the request to the Ministers of Industry of the sub-region for a decision to be taken at their next regular meeting or before.

6.3 Interlinkages with National Centres

Within each country, the Minister of Industry will assign a national institute of organization the role of acting as a focal point to the subregional and regional centres. The subregional centres having basically a service function deriving their role from the convenience they represent to the other national institutions will not interfere in direct contacts between the national centres and the regional centre ensuring as free a flow of communications as possible throughout the network. Subregional centres should however be roughly informed of such interlinkages. The national centres will use and properly disseminate the information and services obtained from the subregional and regional centres and they will keep them informed on all relevant consultancy and management services development within their countries.

6.4 Interlinkages with Other Regional Centres

(i) The Centre of Technology in Dakar

The Regional Centre for Consultancy and Industrial Management Services will establish as close a linkage as possible with the data base of the Dakar Centre in complementation of its own data base and in support of its industrial enquiry service. Initially, a telex link up should be established to be followed as soon as possible with a continuous on line data bank connexion.

(ii) The Engineering and Manufacturing Design Centre, Ibadan

Being housed in the same facilities as the Engineering and Manufacturing Design Centre, both centres will mutually complement their data bases, and cooperate on multi-disciplinary subregional or regional assignments on a case basis. A joint committee will be set up between these two centres meeting at six months interval.

(iii) The Higher Technical Training Centre, Nairobi

Particularly during the second phase of operation of the regional centre, when regionally coordinated training activities will be included in the overall programme the management of both centres will meet to decide on a joint strategy of mutual complementation and support in this field.

6.5 Interlinkages with Institutions Outside of the African Region

The regional centre will establish contacts with similar or complimentary institutions in non-African developing and industrialized countries, for exchange of information, training, research and consultancy activities. It will maintain a particularly close connexion with the Arab Industrial Development Organization and UNIDO both organizations being intimately connected to the development of industrial consultancy and management services in Africa.

6.6 Subregional Centres

There will be four subregional centres and these centres' activities will be coordinated by the regional centre. They are: (See next page)

i. Cairo, Egypt (for North African countries including the Sudan)

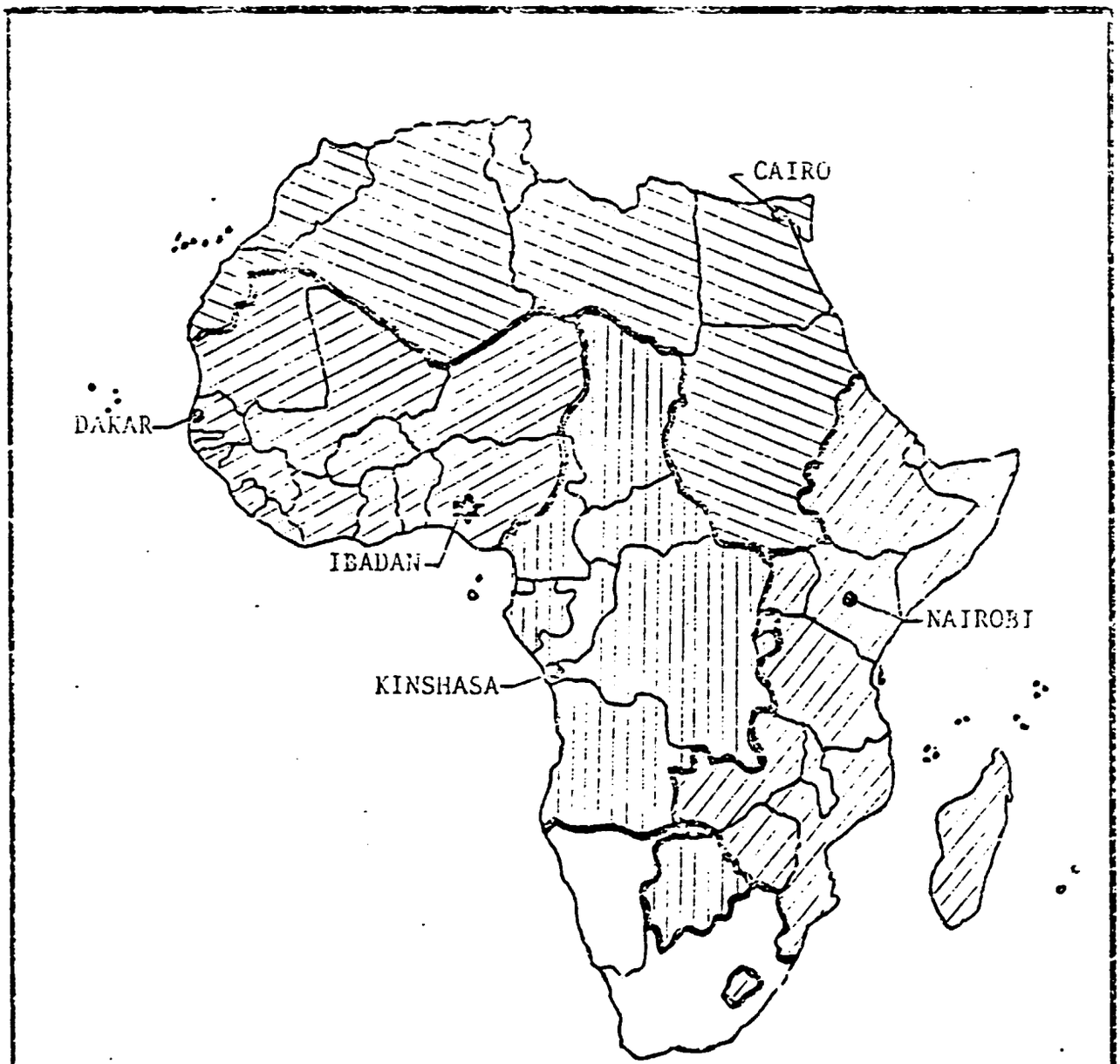
ii. Nairobi, Kenya (for East African countries including Ethiopia)

iii. Dakar, Senegal (for West African countries)

iv. Kinshasa, Zaire (for Central and South African countries)

The remaining African countries are grouped under the various subregional centres as follows:

Cairo (Egypt)	Nairobi (Kenya)	Dakar (Senegal)	Kinshasa (Zaire)
Tunisia	Uganda	Liberia	Botswana
Libya	Ethiopia	Mali	Namibia
Sudan	Madagascar	Sierra Leone	CAR
Algeria	Seychelles	Ghana	Congo Brazzaville
Morocco	Comoros Island	Togo	Angola
Western Sahara	Djibouti	Benin	Chad
Mauritania	Somalia	Niger	Cameroon
	Mozambique	Guinea Bissau	Equatorial Guinea
	Tanzania	Ivory Coast	Gabon
	Zambia	Nigeria	Rwanda
	Malawi	Upper Volta	Burundi
	Swaziland	Cape Verde	Sao Tome Principe
	Lesotho	Gambia	
	Zimbabwe		
	Mauritius		



SUB-REGIONAL CENTRES AND THEIR LOCATIONS

The boundaries shown on maps do not imply official endorsement or acceptance by the United Nations.

VII. INSTITUTIONAL FRAMEWORK

7.1 Governing Council

The Centre will be created as an independent entity under the supervision of a regional body- a governing council- composed of representatives from the member governments, industry and consultancy/management services organisations. Its twelve members will be elected for a period of two years and its constitution shall be as follows:

i. Four Ministries of Industry, one each from the subregion out of the member countries.

ii. Four top industrial executives i.e. general manager/managing director/director general of public or private industrial corporations, each from the subregion out of the member countries.

iii. Four Heads of management, consultancy or productivity institutes, one each from the subregion out of the member countries.

The Director-General will be an ex-officio member of the Governing Council with voice but without vote until self-sufficiency is reached. The Governing Council may then be transformed into a supervisory board of a more consultative status.

The Chairman of the Governing Council will be selected from among the Ministries and Chairmanship and membership will be rotating. The chairman of the Governing Council shall be elected during the regular meetings of Ministries of Industry which is convened before the expiry of the term of the Chairman. The other members will be elected from among the industries using the official industrial representatives of each country as focal points and from industrial consultancy organisations in the subregions which have been assigned the role of serving as focal points in consultation with the designated management of the Centre itself.

The Governing Council in accordance with the objectives of the Centre will decide on:

i. Any change in the basic policies and tasks of the centre.

ii. Approve work programmes and forecasts.

iii. Appraise the various substantive activities of the Centre and evolve improvements of its operations.

iv. Consider and adopt the Report of the Director General in the expenditures and achievements of the Centre in relation to the targets envisaged.

The Governing Council will meet at least once every year in order to enable it to discharge its functions effectively.

7.2 Management Board

The Management Board of the Centre will eventually consist of the Director-General and the Directors of the Centre. The Board will be responsible for implementing the policy guidelines and activities assigned to the Centre, and shall formulate periodic work programmes and budget forecasts of the Centre for approval by the Governing Council which will act in consultation with contributing member governments.

The Director General of the Centre shall possess vast administrative experience in the fields of managing work connected with industrial development in African countries. The success of the Centre is dependent upon

the leadership provided by the Director General and the business secured by him in order to enable the Centre to gain self-sufficiency at the earliest. The Director General will establish the operational rules, regulations, criteria and parameters of the Centre subject to the approval of Governing Council. He will ensure the implementation of the Centre's work programme, formulation of budgets and management of the Centre including its financial affairs and will follow the guidelines provided by the Governing Council.

7.3 Departments

There will be five departments under the Director General each headed by a Director as may be observed from the Organisation Structure proposed for the Centre after the first year of its becoming operational.

i. Director (Survey and Research)

ii. Director (Information Services)

iii. Director (Consultancy)

iv. Director (Training)

v. Director (Administration)

Each of the above Directors will have professionals and support staff under their supervision as indicated in the Organisation Structure.

The Director (Survey and Research) will coordinate the functions relating to establishing the data base of the centre. His duties will include country and regional studies, sectoral studies, compilation of tasks on consultancy organisations, specialists, feasibility studies, industrial projects, technical projects, technical assistance projects, standards on contracts and technology, etc. The incumbent shall have university education in Industrial Economics

and possess vast background experience in economic research, documentation and consultancy obtained in different countries. The Information Services is visualized as a separate department due to its paramount importance in the operational and functional structure of the Centre.

The Director (Information Services) shall closely cooperate with the Director (Survey and Research). His function will be the dissemination of the information and know-how available at the Centre including promotional activities for its services. The Director (Information Services) shall have university education in the sciences of social communication combined with a strong technological and economic background based on extensive experience.

The Director (Consultancy Service) shall have the responsibility of coordinating various functions relating to consultancy services falling into the categories of general economic consultancy.

In addition to the above, the incumbent shall discharge functions relating to project planning, design and engineering, process and technology consultancy, project management services and management consultancy. The incumbent should preferably have a degree in management or engineering and must have ample experience in managing consultancy assignments relating largely to the implementation of large industrial and engineering projects in developing countries.

The Director (Training) will coordinate the functions relating to the organisation of training courses, seminars, workshops, management development programmes, etc. The incumbent shall have a degree in social sciences or engineering with specialization in business management or personnel management and should possess vast background experience in the fields mentioned above.

The Director (Administration) is expected to discharge all functions relating to administration, financial, housing, mailing, liaison, transport and other supportive functions. He shall have formal education in management or administration and consultancy organisations.

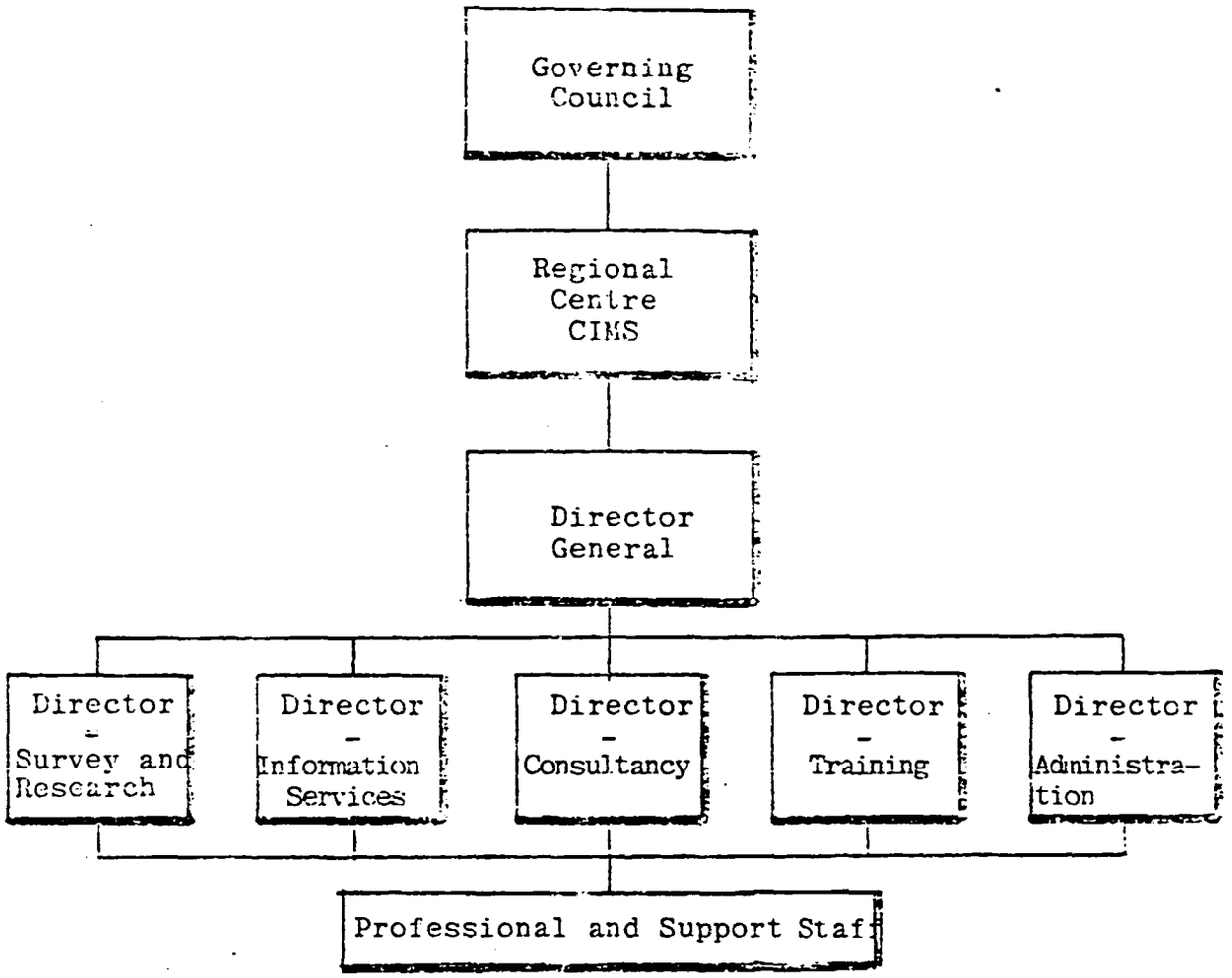
The various Directors shall be appointed by the Director General for a period ranging from 3 to 5 years after obtaining approval of the Governing Council. When delays have to be avoided the appointments may be made on the approval of the Chairman of the Governing Council alone for a period not longer than a year. The appointment will then be submitted for ratification in the next meeting of the Governing Council.

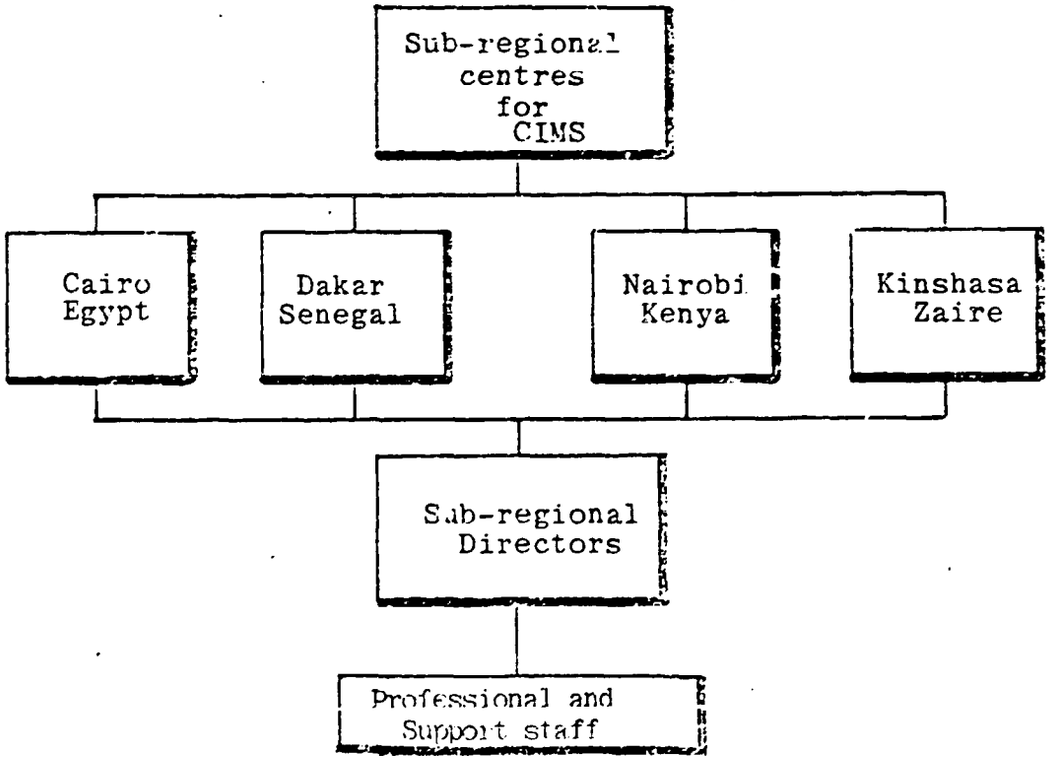
7.4 Organisational Structure

The organisation structure of the Centre should be modelled after successful consultancy organisations to ensure a maximum amount of flexibility and creativity. Most work will be organized on a task force or project team basis.

While the proposed organisational structure is designed to fulfill the needs of the Centre at its full scale of operations, the actual placement of the envisaged professionals should be resorted to after careful assessment of the need to fill each post and keeping in view the build-up of actual workload, success and acceptance of the Centre's work. The Centre should in the beginning consist of a very small group of persons as shown in the organisation chart. (Page 205).

In addition to the above, three secretaries at least one of which must be bilingual and one with a background experience in documentation, should be engaged to start with.


Governing Council
Regional Centre CIMS
Director General
Director - Survey and Research
Director - Information Services
Director - Consultancy
Director - Training
Director - Administration
Professional and Support Staff


Sub-regional centres for CIMS
Cairo Egypt
Dakar Senegal
Nairobi Kenya
Kinshasa Zaire
Sub-regional Directors
Professional and Support staff

The Centre's services will be available to all member governments, African industry and management services and consultancy institutions within the African region.

The Centre, which will be funded in the beginning from membership contributions will adequately charge for its services with a view towards obtaining complete self-sufficiency after three to four years of operation. Surpluses will be fully re-invested into upgrading and expanding its activities, when self-sufficiency has been achieved, except for subsidies contributed to its activities for special purposes, the composition of the governing council will be altered to include representatives from the centres management and staff in the policy presentation and supervisory body.

VIII. CRITERIA FOR THE LOCATION OF THE CENTRE

8.1. GENERAL

The African Regional Centre for Consultancy and Industrial Management Services is expected to strengthen and sustain the capabilities of African countries in the elaboration of specific industrial projects. It should provide highly technical services to State members of the Economic Commision for Africa (ECA) and the Organisation of African Unity (OAU) for the preparation and implementation of projects at all stages with a view to stimulating multilateral co-operation among African countries in the establishment of specific industries. The Centre must provide consultancy and management services to African countries in order to help them improve the management of industrial enterprises and strengthen local management establishments.

The Centre which is a multidisciplinary, should deal with professional services needed for the implementation of the Lagos Plan of Action. These services must be purely professional and should aim at promoting the development of African countries.

The Centre, being multidisciplinary in nature, will have at its disposal greater experience in many areas of activity and will widen the scopes of projects study that entails sufficient mastery in technology in line with African realities and conditions.

There is a need to pool the competence, knowledge and experiences of African Consultancy organisations and manufacturing companies.

A Centre such as this, which should make a significant contribution to the development process of African countries by seeing to the preparation and implementation of particularly complex projects, must be provided with regular and reliable logistic services and must be given all the necessary support. Given the importance which the Lagos Plan of Action attached to this Centre, it goes without saying that it should be established in a

place where it will become operational without unnecessary delay and wastage of the resources put at its disposal for its smooth functioning.

In accordance with the decision of the ECA Conference of Ministers held at Freetown from 6 to 10 April 1981 it was agreed that the African Regional Centre for Consultancy and Industrial Management Services be established at the same place as the African Regional Centre for Engineering Design and Manufacture (ARCEDEM) at Ibadan, Nigeria.

8.2 Nigeria's Contribution

Indeed, by accepting to host the African Regional Centre for Engineering Design and Manufacture (ARCEDEM) the Federal Republic of Nigeria has offered 100 hectares land for its establishment. Good roads. communications and industrial environment exist.

The host country has already made a substantial contribution to the tune of US$8 million for the construction of the main buildings of the African Regional Centre for Engineering Design and Manufacture (ARCEDEM).

Since the African Regional Centre for Consultancy and Industrial Management Services (CIMS) and the African Regional Centre for Engineering Design and Manufacture (ACREDEM) are two independent entities, it is important that the host Government determine the portion of the land that belongs to ARCEDEM and its future contribution to the construction of the main building of ARCCIM.

The two centres should sign an agreement to the effect that they are willing to live togther and use the common facilities that will be provided to them by the host Government.

8.3 Existing Competence and Facilities of Consultancy and Industrial Management Service

Given the multidisciplinary nature of the Centre and the complexity of the activities in view, the Centre must be sited at a place which has the facilities and competence of consulting and industrial management services. By competence and facilities of consultancy and industrial management services, we mean:

(a) The existence of a national policy to encourage, develop and protect local capabilities in the field of consulting and industrial management services. In other words, the possibilities must exist:

- to conceive, define and formulate projects
- to prepare and evaluate feasibility studies
- to invite international tenders and to negotiate contracts
- to implement projects, etc.

(b) The existence of a national body regrouping all local consultancy and industrial management establishments in various fields such as the following professional services:

(i) Infrastructural development

- power and dam construction engineering
- power transmission and distribution
- bridge, road and railway construction
- water supply and sewerage
- building engineering, architecture and town planning
- irrigation, flood control and drainage

(ii) Engineering industries

- rolling factory (mills)
- electric furnaces
- mini steel plants

- steel and iron foundry
- structural manufacturing
- light engineering industries including durable goods such as bicycles, sewing machines, staples fans, switches and lanterns, etc.
- machine tools
- manufacturing of industrial machines
- construction of chemical factories
- auto spare parts
- electrical machinery and switchgear

(iii) Textile industries

(iv) Cement and cement products

(v) Basic agricultural industries
- food and agro-processing industries

(vi) Fertilizers and chemicals
- fertilizers
- chemicals
- salt and salt washing plants
- insecticides and pestcides

(vii) Prospecting and oil
- oil refining
- petrochemical factories
- pipes
- offshore engineering
- mining industry

(viii) Small scale industries

(ix) Industrial management

(x) Others

Thus the Centre can make use of all these conditions that favour the activities of the Consultancy and Industrial Management Services and establish working relations with the local CIMS.

Such relations require among others the following conditions:

(a) provision of technical services and equipment not available at the above Centre:

(b) access to project study, research and technology department and management training which will help the Centre in the implementation of its programme of action:

(c) use of skilled manpower in areas of activity covered by the Centre.

The Federal Republic of Nigeria have all the above elements to warrant the location of the centre there. Indeed there exists in Nigeria* a national policy of development and protection of consulting engineer services. The Association of Nigerian Consulting Engineers participates actively in the implementation of most of the Government projects.

8.4 Adequate Communications

Nigeria has an adequate communication system, particularly the air and maritime transport infrastructure which can facilitate rapid and regular contacts with the other African countries particularly with the sub-regional offices.

Telecommunications services exist in Nigeria. They are controlled by NEC and can facilitate rapid communications with the other African countries and with many developed countries.

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*See: 1) Association of Consulting Engineers, Nigeria January 1981 (incorporated under companies decree 1968) which has 150 members of all Engineering disciplines.

2) Association of Consulting Engineers, Nigeria April 1973 (conditions of engagement and scale of fees. Approved by the Nigerian Society of Engineers.)

8.5 Costs of the Building and Foreign Exchange

It would be desirable that the host country should ensure that the costs of the buildings of the Centre are reasonable. The host country should house the staff of the Centre or if necessary grant a 50% reduction on the house rents of the staff of the Centre.

The host country should make sure that the Centre always has foreign currency to enable it to meet its obligations vis-a-vis the outside world without any difficulties or delays. This will enable the Centre to carry out its activities.

8.6 Equitable Geographical Distribution of the Subregional Bureau

The existing facilities in Consultancy and Industrial Management Services will play the role of sub-regional bureau:

(i) Sub-regional bureau No. 1: All the North Arrican countries: Headquarters: Cairo - Egypt, Sudan, Libya, Algeria, Morocco, Tunisia, Western Sahara

(ii) Sub-regional bureau No. 2: West Africa: Headquarters: Dakar - Senegal, Ivory Coast, Benin, Togo, Ghana, Nigeria, Sierra Leone, Liberia, Gambia, Guinea, Guinea Bissau, Mali, Niger, Cape Verde, Upper Volta

(iii) Sub-regional bureau No. 3: East Africa: Headquarters: Nairobi - Kenya, Tanzania, Uganda, Ethiopia, Somalia, Djibouti, Madagascar, Comoros, Seycehlles, Mauritius, Zambia, Swaziland, Zimbabwe, Mozambique, Leshoto, Malawi

(iv) Sub-regional bureau No. 4: Central and South West Africa: Headquarters: Kinshasa - Zaire, Angola, Botswana,, Namibia, Rwanda, Burundi, Congo, Cameroon, Gabon, Central African Republic, Tchad, Principe Sao Tome, Equatorial Guinea

8.7 SUMMARY

In the summary, the African Regional Centre for Consultancy and Industrial Management Services expects from the host country the following facilities:

A. Immunities and concessions for the African Regional Centre for Consultancy and Industrial Management Services normally provided for multinational organisations under the United Nations auspices:

- immunity of assets, property and funds from search, requisition, confiscation, expropriation, and any other form of seizure, except in the case of real estate that may be requisitioned in the public interest with due financial compensation

- exemption from taxes, duties and levies of any kind whether existing or to be imposed or issued in the future

- freedom of assets from all restriction, regulations, control and lieu of any nature

B. Immunities and concessions for staff provided for international staff as follows:

- Immunities from legal restriction, alien registration requirements and national service obligations

- Exemptions of the incomes and allowances of the staff of the Centre from taxes whether existing or to be imposed or issued in the future

- Granting of foreign exchange facilities to the staff of the Centre who are non-nationals on the same basis as for the staff of international organisations

C. Communication facilities

- Rapid installation
- Installation of nominal charge
- Service at preferential charges

D. Air transport facilities

E. Physical infrastructure

(i) Office space: appropriate office with good connection to water and electricity utilities

- market rent
- subsidized rent
- nominal rent
- free of charge

(ii) Housing facilities

- purchase
- rent

F. Educational facilities

- preparatory level E.F.A. (English, French, Arabic)
- primary level (E.F.A.)
- secondary level (E.F.A.)
- university level (E.F.A.)

G. Other facilities and services

- hotels
- libraries
- hospitals
- private medical services
- printing facilities
- maintenance and repair facilities for office equipment
- existence of jobbing workshops capable of undertaking sub-contracts for machine parts
- any other facilities

IX. CAPITAL INVESTMENT, OPERATIONAL COSTS, MEANS AND SOURCES OF FINANCING

9.1 Sources of Financing

Organisations such as the African Regional Centre for Consultancy and Industrial Management Services (CIMS) usually experience their acutest financial problems in the formative stages. Accordingly, in order to ensure that the Centre gets off to a good start, it will be necessary to submit a project request for UNDP funding and for African Trust Funds for the establishement of the Centre and for its first two years of operation. It is recommended that finance should be made available to the Centre on a regular and continuing long-term basis.

The various sources of such financing control include:

(i) Annual contribution from African countries;

(ii) Grants from other developing countries;

(iii) Grants from developed countries;

(iv) Grants from African financial institutions;

(v) Technical assistance from UNDP;

(vi) Service charges and fees when the Centre is fully operational;

(vii) Contributions from other United Nations agencies

The member of the African States should be the first financing boards concerned to provide through their subscriptions and grants, the funds necessary to operate and ascertain the operation of the Centre. The total cost estimated envisaged for the first three years of the establishment of the Centre is about US$ 5 million.

The Joint ECA/UNIDO consulting group recommends that each participating country of the OAU and ECA member states contribute in the form of an annual retainer, the modest sum of one-quarter of one percent (¼ of 1%) of the annual development budget. This

retainer will be applied against professional services rendered by CIMS to the specific country.

The rationale for the retainer is as follows:

- It will show positive support for CIMS in accordance with the Lagos Plan of Action;
- It will enable CIMS to be self-supporting and self-sustaining;
- It will assure utilization of CIMS by the participating countries;
- The retainer will be applied against services provided by CIMS, therefore, full and equal value will be given in direct proportion to the retainer contribution;
- It will enable CIMS to provide the best in professional personnel and will permit CIMS to provide a full range of services to the participating countries.

9.2 Staff Establishment and Budget for 1982 to 1984:

9.2.1. Staff Establishment Director General's Office

	Grade Level	1982 m/m	1983 m/m	1984 m/m
- Director General	D-2	12	12	12
- Secretary of Director General (Legal Officer)	P-5	12	12	12
- Administrative assistant	GS-9	12	12	12
- Chauffeur	GS-8	12	12	12
- Bilingual Secretary/ typist	GS-8	12	12	12
- Messenger/Cleaner	GS-3	12	12	12

9.2.2. Estimates of staff costs: Professional category

Grade Level	Project personnel	1982 m/m	1982 US$	1983 m/m	1983 US$	1984 m/m	1984 US$
I	Professional category regular staff						
D-2	- Director General	12	84,000	12	84,000	12	84,000
D-1	- Directors of departments	60	360,000	60	360,000	60	360,000
P-5	- Senior and Section Chiefs Officers	72	360,000	96	480,000	96	480,000
P-4	- Senior Officers	24	96,000	24	96,000	24	96,000
	Sub-total	168	900,000	192	1,020,000	192	1,020,000
	Other costs	-	82,800	-	94,800	-	94,800
	Total	-	990,000	-	1,122,000	-	1,122,000

9.2.3. Estimates of staff costs: Administrative personnel

Grade Level	Project personnel	1982		1983		1984	
		m/m	US$	m/m	US$	m/m	US$
	Administrative support personnel						
GS-9	- Administrative assistant	24	43,200	24	43,200	24	43,200
GS-8	- Bilingual secretaries Telex operators and chauffeurs	120	180,000	192	288,000	192	288,000
GS-7	- Bilingual typist	12	14,400	12	14,400	12	14,400
GS-3	- General Labour	48	28,800	72	43,200	72	43,200
	Total	204	266,400	300	388,800	300	388,800

9.2.4. Other capital and operational costs (in US$)

	Total	1982	1983	1984
a. estimated capital costs of office space and library	300,000	300,000	-	-
b. data processing equipment	50,000	50,000	-	-
c. stationery	50,000	20,000	10,000	20,000
d. office machinery and equipment	200,000	100,000	50,000	50,000
e. Telex	60,000	20,000	20,000	20,000
f. Transport: - 1 Van and accessories (US$ 30,000) - 5 Service cars and accessories (100,000)	130,000	130,000	-	-
g. Operations and maintenance	50,000	15,000	15,000	20,000
Total	840,000	635,000	95,000	110,000

9.3

Summary of Estimates

4(a) Personnel and administrative costs	Total		1982		1983		1984	
	m/m	US$	m/m	US$	m/m	US$	m/m	US$
Professional category (regular staff)	552	3,234,000	168	990,000	192	1,122,000	192	1,122,000
Administrative support personnel	804	1,044,000	204	266,400	300	388,800	300	388,800
Other capital and operational costs		840,000		635,000		95,000		110,000
Grand Total	1356	5,118,000	372	1,891,400	492	1,605,800	492	1,620,800

X. IMPLEMENTATION PROGRAMME FOR THE ESTABLISHMENT OF THE CENTRE

10.1 Sequence of events from start of the Mission (May 1981)

In order to ensure that the Centre becomes operational in the shortest possible time it is very essential that the various activities and preconditions relating to the establishment of the Centre are clearly defined. The various sequence of events resulting in the Centre becoming operational have been given in the table (See page 223.)

The key event relates to the signing of the Agreement by the various states which is envisaged to be completed by January 1982. Once the agreement has been signed, the proposed budget for its initial operation based on the agreement arrived at has to be prepared and got approved. Action regarding initial staffing has to be initiated at the opportune moment in order to ensure that the staff envisaged for the first phase is in position according to the timetable of activities.

	Activity	Schedule
A.	Initial Framework	
1.	UNIDO/ECA mission survey and report	May - July 1981
2.	UNIDO/ECA review of report	August 1981
3.	Experts evaluation meeting	September 1981
4.	Ministers of Industry meeting	November 1981
5.	Establish operating, management, administrative and financial systems and procedures	September 1981- April 1982.
B.	Legal and Financial Framework	
6.	Participating countries review agreement for creation of CIMS	November-December 1981

Activity	Schedule
7. Participating countries sign agreement for creation of CIMS	January 1982
8. Initial UNDP and African Trust Fund Funding	January 1982
9. Constitution of the founding Governing Council consisting of one Minister of Industry of each of the Subregions, the heads of each of the designated subregional consultancy and management services institution and the Executive Secretaries of OAU, UNIDO and ECA.	February-March 1982.
10. Budget approval for CIMS	March 1982
11. Appointment of the definitive Governing Council consisting of one of the Minister each of the subregions, one representative of the consultancy organizations within each of the subregions, and one representative of industry as specified under the Institutional Framework. Additionally, the Governing Council conduct the first status review of CIMS	November 1982
12. Participating countries submit initial scheduled financial contribution	March 1982
C. Staffing	
13. Recruitment and appointment of CIMS Director General	March - May 1982
14. Recruitment and appointment of two coordinators	March- May 1982
15. Selection and appointment of initial staff	March - May 1982
D. Facilities	
16. Appointment of specific facility location	January 1982
17. Initial purchase of equipment, furnishings, supplies, etc	February-April 1982
18. Commissioning of facility	April 1982
E. Operations	
19. CIMS- commence work	April 1982

IMPLEMENTATION PROGRAMME SCHEDULE FOR THE ESTABLISHMENT OF THE AFRICAN REGIONAL CENTRE FOR CONSULTANCY AND INDUSTRIAL MANAGEMENT SERVICES (CIMS)

	ITEM	ACTIVITY	1981 M	J	J	A	S	O	N	D	1982 J	F	M	A	M	J	J	A	S	O	N	D
Initial Frame-work	1.	UNIDO/ECA Mission																				
	2.	UNIDO/ECA Review of Report																				
	3.	Experts Evaluation Meeting																				
	4.	Ministers of Industry meeting																				
	5.	Establish systems and procedures																				
Legal and Financial Framework	6.	Participating Countries review																				
	7.	Sign CIMS Agreement																				
	8.	Initial UNDP and African trust fund funding																				
	9.	Constitution for and appointment of founding Governing Council																				
	10.	Budget approval for CIMS																				
	11.	Appointment of definite governing council																				
	12.	Participating countries submit initial funding contribution																				
Staffing	13.	Appointment of Director-General																				
	14.	Appointment of coordinators																				
	15.	Appointment of staff																				
Facilities	16.	Appointment of specific facility location																				
	17.	Initial purchase of equipment, furnishings, supplies, etc.																				
	18.	Commissioning of facility																				
O	19	CIMS - Commence work																				

The Project Manager shall also make the requisite arrangements for housing of the Centre, acquisition of necessary equipment for its operation and coordinate the same with ARCEDEM, Ibadan. He may ultimately be absorbed as the coordinator for consultancy services. The detailed scheduling of output and activities are given in Chapter V of the Report.

10.2. CONCLUSION

The above table describes the basic steps and the pre-conditions necessary to be fulfilled in order to enable the establishment of the Centre. After the submission of the Report in July/August 1981, it is envisaged that the experts meeting would take place in September 1981 to discuss the Report for the Establishment of the Centre for Consultancy and Industrial Management Services. The experts meeting will thoroughly discuss the Report and submit its Recommendations to the meeting of the African Ministers of Industry expected to be held in November 1981. A person responsible for the preparation of the Ministers of Industry meeting in November must be appointed to ensure full briefing of the Ministers preparing and circulating all the necessary documents on the project as prepared by the Joint ECA/UNIDO Mission and discussed by the Expert Group Meeting. He will be commissioned to ensure the impelementation of the Centre within the stipulated time framework. He or she must have vast background experience in Consultancy and Industrial Management Services and can be designated as Project Manager.

As early, as September-November 1981, and after the initial framework has been evaluated it is recommended that immediate steps be taken to start the system and procedures development. The development of administrative, financial and management systems is a vital and necessary function for the effectiveness of CIMS. This development prior to the actual on-site establishment of CIMS, will permit an orderly and efficient assimilation of the Director and the staff of CIMS systems and procedures design, on a manual basis not designed for EDP application, should

encompass all areas that concern the internal functionings of CIMS as well as the external communication and data flow. A smooth functioning organization is dependent upon effective management and supervision as well as systems and procedures. This phase of development should take approximately 8-10 man months to develop and will greatly enhance the success of CIMS.

XI. MONITORING OF THE CENTRE

It is important, for the success of the Centre and both feedback and effective participation, that the activities of the CIMS should be monitored. The monitoring function should be carried out by its Governing Council.

There are three major aspects which would require the attention of the Governing Council, and these are:

(a) Effective utilization of personnel
(b) Conformation with approved plan, and
(c) Finances

A quarterly detailed report will be prepared by the CIMS for circulation to the Governing Council members. The report should highlight the progress and at the same time specifically draw attention to problem areas. For the problem areas the CIMS would solicit guidence from the members.

An annual progress report should also be prepared by CIMS for the consideration of the Governing Council and financing agencies.

In the case of the subregional centres where the CIMS has subcontracted projects, the subregional centres would submit monthly formated reports during the validity of the subcontract period. These reports would be analysed and synthesized by the CIMS and the results would be incorporated in the quarterly report mentioned above.

There would also be a system whereby the Subregional Centres feed the Regional Centre with reports and information at convenient times to correspond to the submission of the quarterly detailed reports to the Council.

APPENDIX 1

CONSOLIDATED TERMS OF REFERENCE FOR ECA/UNIDO MISSION

Background

At the second Extraordinary Session of the Heads of State and Government of the Organisation of African Unity held in Lagos from 28 to 29 April 1980, the major role accorded by member States to industrialisation was particularly emphasised. Recognizing the impact of industrialisation on meeting the basic needs of the population, ensuring the integration of the economy and the modernization of society, the Heads of State and Government declare the years 1980 to 1990 as the Industrial Development Decade for Africa (Lagos Plan of Action paragraph 52).

To accelerate the process of industrialization, the achievement of collective self-reliance of the African nations and the activation of a self-sustained growth processes are considered of basic importance. To attain these aims and as one of the concrete expressions of the will of the member States to cooperate at the subregional and regional levels it was decided at this meeting to create the African Regional Centre for Consultancy (Engineering) and Industrial Management Services within the overall context of the Lagos Plan of Action for the economic development of Africa (ibid. paragraph 79(f)).

A Regional Centre of this nature will have a dynamic role to play in the African industrialization process in particular also with regard to the new industrial facilities to be created throughout the continent. The priority areas for such industries have been clearly spelled out in the referenced document as well as the various measures to be adopted at the national, subregional, regional and international levels, to achieve the targets envisaged (ibid. paragraph 68 to 75).

The Regional Centre to be created will be complementary to other regional instituitons in Africa already existing

or in the process of being established. Although its concept emerged in analogy to other Centres, institutions and organizations with similar objectives and of similar nature in other countries, or regions, the proposed Centre is innovative in character and scope. Fundamentally, however, it must grow out of the African economic development context to which it is expected to deliver a major contribution.

The Regional Centre to be created will assist African countries to improve their capacities and capabilities in planning, formulation, preparation, negotiation, implementation and monitoring of specific industrial projects, consistent with one of the main industrial objectives of the Lagos Plan of Action, the creation of basic industries which are essential for self-reliant and self-sustaining economic growth.

The Regional Centre will be located within the African Regional Centre for Engineering Design and Manufacturing at Ibadan, Nigeria, and it is expected to be developed as an autonomous African Regional Institution for Consultancy (Engineering) and Industrial Management Services, an organization to provide services readily on request, reduce operative bureaucracy and be able to respond quickly to needs at all levels at which they arise.

Objectives of the Mission

(a) General

To determine the specific regional and subregional cooperation possibilities and opportunities in the fields of consultancy (engineering) and industrial management within the overall context of the industrial development effort of the African nations.

(b) Specific

Based on the above and screening out those opportunities of cooperation which can be usefully institution-

alized, make a concrete and detailed proposal describing the African Regional Centre for Consultancy (engineering) and Industrial Management Services.

Tasks to be performed by the Mission

The task of the mission will consist primarily of a survey of consultancy (engineering) and industrial management activities and organisations in a representative sample of African countries with a view to gathering data on the cost of such services to African countries, and identifying and evaluating in a comprehensive manner the needs of African countries to develop these services. In order to achieve its objectives, the team will meet and discuss with representatives from the public and private sectors i.e. Ministries of Industry, Planning, Finance, Public Utilities and Mines, the Banks, Industrial Studies Centres, representative National Consultancy Organisations where available and other organisations utilizing consultancy (engineering) and/or industrial management services as well as obtain their views, suggestions, recommendations and support for the establishment priorities, operation and financing of the Centre. Where-ever possible the mission should obtain figures to support and justify its findings. Likewise the mission should determine the areas of complementarity with the recently established African Regional Institutions i.e. African Regional Centre for Technology in Dakar and African Regional Centre for Engineering Design and Manufacturing in Ibadan (ARCEDEM).

The mission should formulate, in view of the above and in the light of national and regional objectives, a coherent self-reliant African strategy and approach to the problem of building and developing consultancy (engineering) and industrial management capabilities in Africa generally, and in particular, outline specific responses to problems identified in various sectors and in so doing, design the nature and structure of the proposed centre, taking particular note of the need to spell out in detail the role, functions linkages and organisations structure as well as location, the

method of funding and financing of the Centre as a commercial enterprise. In particular, the mission will examine the possibility of locating a small liaison group at ARCEDEM to be linked with subregional consultancy (engineering) corporations which in turn should be linked to national consultancy organisations as well as the means of subcontracting to indigenous private consultants and organisation of consortia.

In line with the specific objective of the mission and supported by the findings of the survey the mission will then prepare a detailed proposal for the establishment of the Centre indicating its overall purpose and objectives, defining its major activities and indicating the principal phases for developing such activities. The required staffing and equipment for such a centre, its framework of operation, institutional linkups and the international assistance needed during the initial phase will also be defined. Altogether, the proposal will be specific and comprehensive enough to permit immediate implementation of the Centre after the respective decision will have been taken.

The mission will present its findings and recommendations in the form of a three part report to an intergovernmental meeting covering the following areas:

Part I: General Report and Findings

Part II: Operational Report

(i) Rationale for establishment of the Centre and its objectives

(ii) Outputs and activities of the Centre including scheduling

(iii) Mode of operations and interlinkages with subregional centres, national consulting organisations and organisations outside Africa

(iv) Institutional framework

(v) Criteria for location

(vi) Capital investment, operational costs, means of financing and sources

(vii) Action programme for the establishment of the Centre and prior conditions

(viii) Monitoring of the Centre.

Part III: Executive Summary

Composition of the mission

The mission should consist of ECA and UNIDO team members as follows:

Two Consulting Engineers (one being the team leader)
One Industrial Engineer
One Project Analyst
One Industrial Economist (ECA)
One Economist/Industrial Management (UNIDO)

Country coverage

The mission should aim at visiting a cross-section of about fifteen African countries, including large and semi-industrialized, medium industrializing, least developed and land-locked countries, countries with different ideologies and newly independent countries.

Duration and schedule of the mission

The mission will start its work on 1 May 1981 with a one week's briefing. The field mission will take about five weeks and at least five more weeks for the finalization of the report.

Report of the mission

The consolidated ECA/UNIDO mission report should be completed in Addis Ababa at ECA headquarters after the field mission.

A P P E N D I X 2

STATISTICAL ABSTRACTS

The following Tables are statistical abstracts of data that were vital in the analysis and evaluation of those countries visited and/or studied during the joint UNIDO/ECA mission.

Table	Title
1	Basic Indicators
2	Growth of Production
3	Structure of Production
4	Growth of Consumption and Investment
5	Structure of Demand
6	Industrialization
7	Energy
8	Growth of Merchandise Trade
9	Structure of Merchandise Exports
10	Structure of Merchandise Imports
11	Destination of Merchandise Exports
12	Trade in Manufactured Goods- Destination of Exports
13	Balance of Payments and Debt Service Ratios
14	Flow of External Capital
15	External Public Debt and International Reserves
16	Labour Force

Table 1: Basic Indicators

	Population (millions)	Area thousands of	GNP per capita		Average Annual rate of Inflation percent		Adult litarecy rate percent	Life expectancy at birth (years)	Average Index of food production per capita (1968/71= 100)
			Dollars	Average annual growth percent					
	M10-1978(T)	KM^2 (T)	1978(w)	1960/ 78(w)	1960/ 70(m)	1970/ 78(m)	1975(w)	1978(w)	1976/78(w)
Low-Income Countries									
5 Ethiopia	31.0	1,222	120	1.5	2.1	4.0	10	39	84
9 Burundi	4.5	28	140	2.2	2.8	10.1	25	45	107
17 Rwanda	4.5	26	180	1.4	13.1	14.7	23	46	103
20 Sierra Leone	3.3	72	210	0.5	2.9	10.8	15	46	93
21 Zaire	26.8	2,345	210	1.1	29.9	26.2	15	46	94
25 Tanzania	16.9	945	230	2.7	1.8	12.3	66	51	93
32 Uganda	12.4	236	280	0.7	3.0	27.3	-	53	90
34 Sudan	17.4	2,506	320	0.1	3.7	7.4	-	46	108
36 Kenya	14.7	583	330	2.2	1.5	12.0	40	53	91
37 Senegal	5.4	196	340	- 0.4	1.7	8.0	10	42	96
Middle-Income Countries									
39 Egypt	39.9	1,001	390	3.3	2.7	7.0	44	54	93
40 Ghana	11.0	239	390	- 0.5	7.8	35.9	30	48	79
45 Zambia	5.3	753	480	1.2	7.6	5.7	39	48	109
46 Zimbabwe	6.9	391	480	1.2	1.3	7.6	-	54	102
52 Nigeria	80.6	924	560	3.6	2.6	18.2	-	48	89
55 Morocco	18.9	447	670	2.5	2.0	7.1	28	55	80
57 Ivory Coast	7.9	322	840	2.5	2.8	13.9	20	48	104
72 Algeria	17.6	2,382	1,260	2.3	2.3	13.4	37	58	32

Notes: W == Weighed Average M== Median Value T == Total -- Not Available

	GDP		Agriculture		Industry		Manufacturing		Services	
	1960/1970	1970/1978	1960/1970	1970/1978	1960/1970	1970/1978	1960/1970	1970/1978	1960/1970	1970/1978
Low-Income Countries										
5 Ethiopia	4.4	1.8	2.2	0.5	7.4	0.4	8.0	1.3	7.8	4.6
9 Burundi	4.4	2.9	-	1.7	-	7.6	-	5.3	-	4.0
17 Rwanda	2.7	4.8	-	-	-	-	-	-	-	-
20 Sierra Leone	4.2	1.3	-	2.8	-	-3.5	-	-4.8	-	3.6
21 Zaire	3.6	1.3	-	1.9	-	0.7	-	-0.6	-	1.6
25 Tanzania	6.0	5.0	-	4.5	-	2.3	-	-4.5	-	8.4
32 Uganda	5.9	-0.2	-	1.1	-	-7.8	-	-5.0	-	-0.2
34 Sudan	1.3	2.7	-	-	-	-	-	-	-	-
36 Kenya	6.0	6.7	-	5.5	-	10.4	-	11.7	-	6.0
37 Senegal	2.5	2.2	2.9	3.3	4.4	3.9	6.2	4.1	1.7	1.0
Middle - Income Countries										
39 Egypt	4.5	7.8	2.9	3.1	5.4	7.2	4.7	7.6	5.1	12.0
40 Ghana	2.1	0.4	-	-1.2	-	-2.3	-	-6.0	-	3.5
45 Zambia	5.0	2.3	-	3.1	-	4.3	-	0.6	-	1.4
46 Zimbabwe	4.2	3.4	-	-	-	-	-	-	-	-
52 Nigeria	3.1	6.2	-0.4	-1.5	16.0	10.3	9.3	13.4	0.2	8.6
55 Morocco	4.2	6.4	4.7	0.1	4.0	7.9	3.8	6.6	4.0	7.6
57 Ivory coast	8.0	6.8	4.2	3.9	11.5	10.0	11.6	7.5	9.7	8.2
72 Algeria	4.6	5.3	0.4	0.2	12.9	5.9	7.7	6.9	-3.0	5.5

Table 2: Growth of Production

	Agriculture		Industry		Manufacturing		Services	
	1960	1978	1960	1978	1960	1978	1960	1978
Low-Income Countries								
5 Ethiopia	65	54	12	13	6	9	23	33
9 Burundi	-	56	-	15	-	9	-	29
17 Rwanda	81	46	7	22	1	15	12	32
20 Sierra Leone	-	39	-	22	1	6	-	39
21 Zaire	30	27	27	20	13	7	43	53
25 Tanzania	57	51	11	13	5	9	32	38
32 Uganda	52	57	13	7	9	6	35	36
34 Sudan	58	43	15	12	5	6	27	45
36 Kenya	38	41	18	19	9	12	44	40
37 Senegal	24	26	17	25	12	19	59	49
Middle-Income Countries								
39 Egypt	30	29	24	30	20	25	46	41
40 Ghana	41	36	19	18	10	9	40	44
45 Zambia	11	17	63	39	4	17	26	44
48 Zimbabwe	18	20	35	35	17	20	47	45
52 Nigeria	63	34	11	43	5	9	26	23
55 Morocco	23	18	27	32	16	17	50	50
57 Ivory Coast	43	21	14	23	7	13	43	56
72 Algeria	21	8	33	56	10	12	46	36

a. Manufacturing is a part of the industrial sector, not its share in GDP, is shown separately because it is typically the most dynamic part of the industrial sector.

Table 3: Structure of Production

	Public Consumption		Private Consumption		Domestic Investment	
	1960-70	1970-78	1960-70	1970-78	1960-70	1970-78
Low-Income Countries						
5 Ethiopia	4.7	3.7	4.7	3.7	5.7	-1.6
9 Burundi	19.2	5.1	3.2	3.1	4.3	16.9
17 Rwanda	1.1	2.8	4.2	3.9	3.5	17.1
20 Sierra Leone	. .	13.4	-	0.5	-	5.6
21 Zaire	8.5	-0.2	3.9	-0.7	9.6	0.6
25 Tanzania	X	X	5.2	5.8	9.8	1.9
32 Uganda	5.9	1.6	5.6	1.6	9.8	-13.8
34 Sudan	12.1	X	-1.2	4.3	-1.3	9.8
36 Kenya	10.0	8.7	4.6	6.2	7.0	2.3
37 Senegal	-0.2	2.3	3.2	2.1	1.1	2.5
Middle-Income Countries						
39 Egypt	10.3	5.0	5.4	6.1	3.1	23.3
40 Ghana	6.1	-0.3	2.0	1.7	-3.2	-8.3
45 Zambia	11.0	2.3	6.9	-2.7	10.6	-2.9
46 Zimbabwe	-	2.9	-	3.5	-	-0.8
52 Nigeria	10.0	26.9	-	4.0	7.4	23.3
55 Morocco	4.5	13.8	4.0	4.4	8.0	17.4
57 Ivory Coast	11.8	7.5	8.0	8.2	12.7	14.0
72 Algeria						

X Separate figures not available for public consumption, which is therefore included in private consumption

Table 4: Growth of Consumption and Investment

	PUBLIC CONSUMPTION		PRIVATE CONSUMPTION		GROSS DOMESTIC INVESTMENT		GROSS DOMESTIC SAVINGS		EXPORT OF GOODS AND NONFACTOR SERVICES		RESOURCE BALANCE	
	1960	1978	1960	1978	1960	1978	1960	1978	1960	1978	1960	1978
Low-Income Countries												
5 Ethiopia	8	13	81	81	12	9	11	6	9	12	-1	-3
9 Burundi	3	14	92	81	6	14	5	5	13	11	-1	-9
17 Rwanda	10	9	82	87	6	10	8	4	12	20	2	-6
20 Sierra Leone	-	19	-	72	-	17	-	9	-	22	-	-7
21 Zaire	18	21	61	67	12	19	21	12	55	26	9	-7
25 Tanzania	9	14	72	79	14	20	19	7	31	15	5	-12
32 Uganda	9	-	75	98	11	4	16	2	26	4	5	-2
34 Sudan	6	14	85	84	9	16	9	2	12	15	-	-14
36 Kenya	11	19	72	63	20	28	17	18	31	27	-3	-10
37 Senegal	17	17	68	72	16	23	15	11	40	32	-1	-12
Middle-Income Countries												
39 Egypt	17	21	71	65	13	28	12	14	20	21	-1	-14
40 Ghana	10	13	73	81	24	5	17	6	28	10	-7	1
45 Zambia	11	25	48	44	25	31	41	31	56	32	16	-
46 Zimbabwe	11	13	67	63	23	19	22	24	..	..	-1	5
52 Nigeria	6	15	87	57	13	30	87	28	15	31	-6	-2
55 Morocco	12	21	77	68	10	24	11	11	24	18	1	-13
57 Ivory Coast	10	14	73	56	15	31	17	30	37	38	2	-1
72 Algeria	16	15	50	48	42	51	34	37	28	27	-8	-14

Table 5: Structure of Demand DISTRIBUTION OF GROSS DOMESTIC PRODUCT (PERCENT)

	Food and Agri-culture	Textiles and clothing	Machinery and Trans-port Equipment	Chemicals	Other Manufac-turing	Value Added in Manufacturing (Millions of 1970 Dollars)		Gross Manu-facturing-output per capita (1970 Dollars)	
	1976	1976	1976	1976	1976	1970	1976	1970	1976
Low-Income Countries									
5 Ethiopia	-	-	-	-	-	149	171	12	13
9 Burundi	-	-	-	-	-	19	24	-	-
17 Rwanda	-	-	-	-	-	6	3	4	-
20 Sierra Leone	-	-	-	-	-	22	27	-	-
21 Zaire	59	29	13	12	31	7,093	8,973	51	62
25 Tanzania	-	-	-	-	-	116	156	27	-
32 Uganda	53	-	-	-	47	109	86	-	-
34 Sudan	41	36	3	11	9	252	368	51	-
36 Kenya	18	13	19	8	42	174	357	55	116
37 Senegal	58	15	-	13	14	141	190	-	98
Middle-Income Countries									
39 Egypt	17	34	11	13	25	1,326	1,882	146	-
40 Ghana	75	-	-	-	25	253	186	56	-
45 Zambia	55	9	6	5	25	181	213	107	-
46 Zimbabwe	26	14	11	11	38	297	-	142	-
52 Nigeria	92	-	-	-	8	529	1,122	17	42
55 Morocco	41	14	6	7	32	599	879	-	-
57 Ivory Coast	-	-	-	-	-	200	292	-	140
72 Algeria	29	18	11	6	36	735	1,117	-	-

Table 6: Industrialization

	Average Annual Growth Rate (percent)				Energy Consumption per Capita (kg) of Coal Equivalent		Energy Imports as percent of Merchandise Exports		Energy Consumption Per Dollar of GDP (kg of coal Equivalent)	
	Energy Production		Energy Consumption							
	1960/74	1974/78	1960/74	1974/78	1960	1978	1960	1978	1960	1978
Low-Income Countries										
5 Ethiopia	14.1	1.8	14.7	-7.8	8	20	11	27	0.1	0.2
9 Burundi	-	23.4	-	3.1	-	12	-	7	-	0.1
11 Rwanda	-	2.8	-	11.2	-	17	-	11	-	0.1
20 Sierra Leone	-	-	10.3	-0.6	31	100	11	10	0.3	0.5
21 Zaire	3.0	53.5	4.3	2.0	87	69	3	16	0.9	1.0
25 Tanzania	10.6	13.4	10.4	0.5	41	65	-	22	0.3	0.4
32 Uganda	5.2	-4.1	9.5	-0.3	30	48	5	4	0.1	0.2
34 Sudan	-	16.8	13.2	1.4	52	172	8	26	0.2	0.7
36 Kenya	9.3	10.5	4.2	-0.6	143	139	8	15	0.3	0.5
Middle-Income Countries										
39 Egypt	9.8	31.6	2.7	11.7	298	463	12	6	1.7	1.4
40 Ghana	-	2.7	4.4	6.6	106	165	7	18	0.2	0.4
45 Zambia	-	4.4	-	1.8	474	-	-	5	-	1.2
46 Zimbabwe	1.9	-3.9	-	-	-	579	-	-	-	1.2
52 Nigeria	37.4	-2.9	10.2	8.1	34	106	7	2	0.1	0.2
55 Morocco	1.9	4.4	7.7	6.6	148	285	9	28	0.4	0.5
57 Ivory Coast	97.0	-3.8	15.5	7.3	76	357	5	9	0.2	0.4
72 Algeria	11.7	6.7	12.2	13.7	252	687	14	2	0.3	0.7

Table 7: Energy

	Merchandise Trade (millions of Dollars)		Average Annual Growth rate (%)				Terms of Trade (1970 =100)	
	Exports	Imports	Exports		Imports			
	1978	1978	1960-70	1970-78	1960-70	1970-78	1960	1978
Low-Income Countries								
5 Ethiopia	310	522	3.7	-5.4	6.2	-0.2	75	128
9 Burundi	67	98	-	-	-	-	-	-
17 Rwanda	70	179	15.7	3.6	8.0	11.7	89	123
20 Sierra Leone	161	278	0.3	-3.1	1.9	-4.0	89	77
21 Zaire	925	589	-1.8	-4.1	5.5	-10.4	61	61
25 Tanzania	457	1,117	3.5	-6.0	6	-1.0	96	104
32 Uganda	350	255	5.0	-5.3	6.2	-7.8	95	106
34 Sudan	533	1,198	2.1	-3.2	1.1	6.4	100	92
36 Kenya	1,022	1,709	7.2	0.8	6.3	-	112	104
37 Senegal	391	788	1.2	2.4	2.7	4.7	91	100
Middle-Income Countries								
39 Egypt	1,901	6,480	3.2	-2.3	-0.9	16.6	104	92
40 Ghana	1,394	1,266	0.1	-0.1	-0.6	2.7	92	80
45 Zambia	832	611	2.2	-4.7	9.3	-6.9	50	56
46 Zimbabwe	-	-	-	-	-	-	-	-
52 Nigeria	9,983	12,857	6.1	0.5	1.7	25.0	97	250
55 Morocco	1,511	2,970	2.5	2.6	3.3	13.7	103	86
57 Ivory Coast	2,322	2,325	8.8	8.5	9.7	10.6	89	94
72 Algeria	5,866	8,531	4.1	-0.8	-1.0	16.6	115	281

Table 8: Growth of Merchandise Trade

	Fuels and Minerals		Other Primary Commodities		Textiles and clothing		Machinery & Transport Equipment		Other Manufactures	
	1960	1977	1960	1977	1960	1977	1960	1977	1960	1977
Low-Income Countries										
5 Ethiopia	0	0	100	97	0	-	1	1	0	2
9 Burundi	-	8	-	91	-	0	-	0	-	1
17 Rwanda	-	10	-	90	-	0	-	0	-	-
20 Sierra Leone	15	8	20	48	0	0	0	0	65	44
21 Zaire	42	71	57	21	0	0	0	1	1	7
25 Tanzania	-	4	87	90	0	1	0	-	13	5
32 Uganda	18	1	92	99	0	-	-	-	-	-
34 Sudan	0	5	100	95	0	-	0	-	0	-
36 Kenya	1	18	87	72	0	-	0	1	12	9
37 Senegal	3	13	94	80	1	1	1	-	1	8
Middle-Income Countries										
39 Egypt	4	26	84	49	9	18	-	-	3	7
40 Ghana	7	16	83	60	0	0	0	0	10	4
45 Zambia	-	94	-	2	-	0	-	-	-	1
46 Zimbabwe	71	-	25	-	1	-	-	-	3	-
52 Nigeria	8	93	89	6	0	0	0	0	3	1
55 Morocco	38	46	54	33	1	10	1	1	6	10
57 Ivory Coast	1	4	98	89	0	2	0	1	1	5
72 Algeria	12	97	81	2	0	-	1	-	8	1

Table 9: Structure of Merchandise Exports (Percentage share of merchandise Exports)

	Food		Fuels		Other Primary commodities		Machinery and Transport Equipment		Other Manufactures	
	1960	1977	1960	1977	1960	1977	1960	1977	1960	1977
Low-Income Countries										
5 Ethiopia	-	6	-	15	-	3	-	34	-	42
9 Burundi	-	23	-	11	-	8	-	27	-	31
17 Rwanda	-	-	-	-	-	-	-	-	-	-
20 Sierra Leone	23	23	12	7	5	1	15	19	45	50
21 Zaire	-	-	-	-	-	-	-	-	-	-
25 Tanzania	-	10	-	18	-	5	-	35	-	32
32 Uganda	6	11	8	1	8	3	25	44	53	41
34 Sudan	17	-	8	-	3	-	14	-	58	-
36 Kenya	12	6	11	22	8	4	27	34	58	-
37 Senegal	30	-	5	-	2	-	19	-	44	-
Middle-Income Countries										
39 Egypt	23	23	11	2	16	10	25	35	25	30
40 Ghana	19	14	5	15	4	4	26	27	46	40
45 Zambia	-	-	-	-	-	-	-	-	-	-
46 Zimbabwe	-	-	-	-	-	-	-	-	-	-
52 Nigeria	14	13	5	2	6	2	24	47	51	38
55 Morocco	27	17	8	12	7	7	19	38	39	26
57 Ivory Coast	18	14	8	11	2	22	27	38	47	35
72 Algeria	26	17	4	1	2	4	14	46	54	32

Table 10: Structure of Merchandise Imports (Percentage share of merchandise imports)

	Industrialized Countries		Developing Countries		Centrally Planned Economics		Capital Surplus Oil Exporters	
	1960	1978	1960	1978	1960	1978	1960	1978
Low-Income Countries								
5 Ethiopia	69	64	24	26	1	4	6	6
9 Burundi	-	84	-	6	-	10	-	0
17 Rwanda	-	90	-	10	-	-	-	-
20 Sierra Leone	99	96	1	4	0	0	0	-
21 Zaire	89	85	11	34	-	-	-	-
25 Tanzania	74	65	25	28	1	6	0	1
32 Uganda	62	70	34	26	4	2	0	2
34 Sudan	59	50	23	27	14	18	4	5
36 Kenya	77	62	22	35	1	2	-	1
37 Senegal	89	69	11	31	0	0	0	-
Middle-Income Countries								
39 Egypt	26	54	29	12	43	30	2	4
40 Ghana	88	69	5	11	7	20	-	-
45 Zambia	-	82	-	13	-	5	-	0
46 Zimbabwe	-	-	-	-	-	-	-	-
52 Nigeria	95	78	4	22	1	-	0	0
55 Morocco	74	81	22	27	4	11	-	1
57 Ivory Coast	84	83	16	15	0	2	0	-
72 Algeria	93	94	6	4	1	2	-	0

Table 11: Destination of Merchandise Exports (percentage of total)

	Industrialized Countries		Developing Countries		Centrally Planned Economics		Capital Surplus Oil Exporters		Value of Manufactured Exports (Millions of Dollars)	
	1963	1977	1963	1977	1963	1977	1963	1977	1963	1977
Low-Income Countries										
5 Ethiopia	-	28	-	68	-	2	-	2	-	12
9 Burundi	-	100	-	0	-	0	-	0	-	1
17 Rwanda	-	0	-	100	-	-	-	-	-	-
20 Sierra Leone	100	100	-	0	8	0	0	0	23	59
21 Zaire	-	88	-	11	-	1	-	0	1	75
25 Tanzania	-	85	-	15	-	0	-	0	16	35
32 Uganda	-	100	-	0	-	0	-	0	-	2
34 Sudan	35	90	54	10	0	0	11	0	-	5
36 Kenya	%	11	-	86	-	1	-	2	12	118
37 Senegal	74	50	26	50	-	0	0	0	9	36
Middle-Income Countries										
39 Egypt	-	13	-	11	-	85	-	11	88	429
40 Ghana	82	58	17	44	0	0	1	0	3	44
45 Zambia	-	66	66	64	-	0	-	0	-	37
46 Zimbabwe	-	-	-	-	-	-	-	-	-	-
52 Nigeria	81	85	17	15	1	-	1	0	16	72
55 Morocco	-	74	-	19	-	2	-	5	-	222
57 Ivory Coast	40	35	60	65	0	0	0	0	7	161
72 Algeria	-	76	-	19	-	3	-	2	-	38

Table 12: Trade in Manufacture Goods-Destination of Exports (percentage of total)

	Current Account Balance before Interest Payments on External Public Debt (Millions of Dollars)		Interest Payments on External Public Debt (millions of dollars)		Debt Service as Percentage of			
					GNP		Exports of Goods and services	
	1970	1978	1970	1978	1970	1978	1970	1978
Low-Income Countries								
5 Ethiopia	-26	-98	6	13	1..	0.8	11.4	7.5
9 Burundi		-22	-	1	0.3	0.4	2.5	3.2
17 Rwanda	6	-46	-	1	0.2	0.2	1.4	1.4
20 Sierra Leone	-14	-96	2	7	2.9	4.5	9.8	16.0
21 Zaire	-55	88	9	160	2.0	6.5	4.4	31.3
25 Tanzania	-29	-442	6	18	2.1	1.1	8.2	7.4
32 Uganda	24	-129	4	1	0.8	0.1	3.4	2.2
34 Sudan	-29	-54	13	36	1.3	1.4	10.7	9.4
36 Kenya	-38	-474	11	45	2.6	2.4	7.9	8.3
37 Senegal	-14	-114	2	31	0.8	5.4	2.8	14.9
Middle-Income Countries								
39 Egypt	-116	-540	38	386	4.1	8.7	28.7	22.2
40 Ghana	-56	32	12	23	1.1	0.3	5.0	4.4
45 Zambia	131	-191	23	46	3.2	7.1	5.5	20.8
46 Zimbabwe	-	-	-	-	-	-	-	-
52 Nigeria	-348	-3,695	20	75	0.7	0.3	4.1	1.2
55 Morocco	-101	-1,040	23	252	1.5	4.3	7.7	18.7
57 Ivory Coast	-28	-533	11	199	2.8	5.9	6.7	14.1
72 Algeria	-118	-2,977	10	561	0.8	5.9	3.2	20.9

Table 13: Balance of Payments and Debt Service Ratios

	Public and Publicly Guaranteed Medium and Long-term Loans (Millions of Dollars)						Net Direct Private Ivestment (millions of dollars)	
	Gross Inflow		Repayment of Principal		Net Inflow			
	1970	1978	1970	1978	1970	1978	1970	1978
Low-Income Countries								
5 Ethiopia	27	97	15	17	12	80	4	8
9 Burundi	1	23	-	2	2	21	-	-
17 Rwanda	-	19	-	1	-	16	-	5
20 Sierra Leone	8	83	10	28	-2	55	3	19
21 Zaire	31	348	28	342	3	6	42	15
25 Tanzania	50	171	10	20	40	151	-	-
32 Uganda	26	25	4	3	22	22	4	1
34 Sudan	54	290	22	40	32	250	-	-
36 Kenya	30	234	15	69	15	165	14	67
37 Senegal	18	196	5	75	13	121	5	-
Middle-Income Countries								
39 Egypt	302	2,464	247	822	55	1,642	-	297
40 Ghana	40	82	12	24	28	58	88	12
45 Zambia	351	104	32	145	319	-41	-297	19
46 Zimbabwe	-	-	-	-	-	-	-	-
52 Nigeria	62	1,305	36	53	26	1,252	205	189
55 Morocco	163	1,191	36	296	127	895	20	48
57 Ivory Coast	77	948	27	223	50	725	31	10
72 Algeria	292	5,103	33	927	259	4,178	45	135

Table 14: Flow of External Capital

	External Public Debt Outstanding and Disbursed				Gross International Reserves		
	Millions of Dollars		As % of GNP		Million of Dollars		In Months of Import Coverage
	1970	1978	1970	1978	1970	1978	1978
Low-Income Countries							
5 Ethiopia	169	551	9.5	15.4	72	218	4.
9 Burundi	7	64	3.1	10.6	15	83	12.8
17 Rwanda	2	95	0.9	11.1	8	87	3.7
20 Sierra Leone	59	275	14.3	36.1	39	35	1.3
21 Zaire	311	2,566	17.1	33.4	189	196	1.3
25 Tanzania	248	1,095	19.4	25.1	65	96	0.9
32 Uganda	128	252	9.8	3.0	57	-	-
34 Sudan	309	2,076	11.6	38.6	22	29	0.4
36 Kenya	313	953	20.3	17.9	220	369	2.1
37 Senegal	103	587	12.2	29.8	22	23	0.5
Middle-Income Countries							
39 Egypt	1,639	9,879	23.7	71.5	165	1,049	1.9
40 Ghana	489	843	22.6	5.3	58	330	3.6
45 Zambia	596	1,396	34.5	51.6	515	96	1.0
46 Zimbabwe	-	-	-	-	-	-	-
52 Nigeria	478	2,180	6.4	4.5	223	2,037	1.7
55 Morocco	711	5,139	18.6	40.1	141	773	2.2
57 Ivory Coast	256	2,818	18.3	39.5	119	455	1.5
72 Algeria	937	13,168	18.5	52.6	352	3,230	3.6

Table 15: External Public Debt and International Reserves

	% of Population of working age (15-64 Years)		Percentage of Labour Force in						Average Annual Growth of Labour Force (Percent)		
			Agriculture		Industry		Services				
	1960	1978	1960	1978	1960	1978	1960	1978	1960-70	1970-80	1980-2000
Low-Income Countries											
5 Ethiopia	54	52	88	81	5	7	7	12	2.2	1.8	2.2
9 Burundi	55	53	90	85	3	5	7	10	1.9	1.6	2.3
17 Rwanda	53	51	95	91	1	2	4	7	2.2	2.5	
20 Sierra Leone	55	53	78	67	12	18	10	15	1.5	1.8	2.3
21 Zaire	53	53	83	76	9	13	8	11	1.4	2.1	2.4
25 Tanzania	54	51	89	83	4	8	7	11	2.1	2.3	2.7
32 Uganda	54	52	89	83	4	6	7	11	3.2	2.5	2.5
34 Sudan	53	52	86	79	6	9	8	12	2.1	2.3	2.7
36 Kenya	50	48	86	79	5	8	9	13	2.9	2.8	3.3
37 Senegal	54	53	84	77	5	8	11	15	1.8	1.9	2.2
Middle-Income Countries											
39 Egypt	55	56	58	51	12	26	30	23	2.2	2.2	2.3
40 Ghana	53	51	64	54	14	19	22	27	1.8	2.4	2.9
45 Zambia	53	51	79	88	7	11	14	21	2.4	2.4	2.8
46 Zimbabwe	52	50	69	60	11	15	20	25	3.1	2.8	3.0
52 Nigeria	52	54	71	56	10	17	19	27	1.8	2.0	2.9
55 Morocco	53	50	62	53	14	20	24	27	1.8	2.9	3.3
57 Ivory Coast	54	54	89	81	2	3	9	16	3.6	4.5	2.4
72 Algeria	52	49	67	30	12	25	21	45	0.2	3.5	3.5

Table 16: Labour Force

APPENDIX : 3

LIST OF OFFICIALS AND ORGANISATIONS MET.

KENYA

Ministry of External Affairs

Ministry of Finance
- Foreign Aid Department of the Treasury
  - Mr. Agoya, Under Secretary

Ministry of Justice
- Mr. Emulke, Attorney-General's Chambers

Ministry of Transport and Communications
- Mr. S. N. Ntongho, Chief Development Engineer

Ministry of Industry,
- Mr. Mwencha, Director, Industrial Promotion Division

ZAMBIA

National Commission for Development and Planning
- Dr. L. S. Chivuno, Director General
- Mr. J. M. Mtonga, Director of Economic and Technical Cooperation
- Mr. A. Habbanti, Director of Sectorial Planning
- Mr. E. E. W. Mbawe, Assistant Director (ETC)
- Mr. A. Muchanga, Economist (ETC)

Industrial Development Corporation (INDECO)
- Mr. A. Mbikustia-Loswanika, Director of Projects
- Mr. Luke C. Mbewe, Manager Development Services
- Mr. A. Muchanga, Economist (ETC)

Management Development and Advisory Service (MDAS)
- Professor T. Abdel-Malek, UN/ILO Chief Technical Advisor

University of Zambia - Lusaka
- Professor J. Whitaker, Dean of Engineering
- Professor R. K. Appiah, School of Engineering

Minetech Services Group
- Mr. E. A. Sahita, Executive Chairman
  - Pringle (Zambia) Limited
  - Minetech Limited
  - Hydrotech Limited
  - Minetech Services Limited

Engineering Institution of Zambia

BOTSWANA

Ministry of Commerce and Industry
Mr. K. Eder, Senior Industrial Officer
Mr. R. P. Boikawye, Industrial Officer

Botswana Enterprises Development Unit
Mr. J. R. Monametai

Technology Centre
Mr. Medford
Mr. Bart Aarsse

Botswana Development Corporation Unit
Mr. M. O. Mojalene

Ministry of Finance and Planning
Mr. E. Naphanyane

Ministry of Works and Communications
Mr. D. Gasper
Mr. A. Bosmide

Botswana Tenders Board
Mr. Wood

The Polytechnic
Mr. F. R. A. Munis, Principal

RWANDA

Ministry of Industry
Mr. Thadole Uzabakihe

Bureau National des Études
Mr. Nduhungirene

BURUNDI

President's Office
Mr. Kidwingina, Charge de Mission

Ministere des T.P.E.L.
Mr. Nzeyimana Andre, Director General

SENEGAL

Ministry of Development
M.et Mme Sidy Lamine Ba, Director of Industries

Societé Nanvelte des Études de Developpement en Afrique (SONED)
Mr. Oumar Souleymane, Director General

Chamber of Commerce
President of COC

IVORY COAST

Office for the Promotion of Ivorian Enterprises (OPIE)
Mr. N'cho, Secretary General
Mr. Gerard R. Latortue, UNIDO Advisor

Ministry of Planning, Abidjan
Mr. Diage Oman, Director General
Bureau BETPA
Bureau BCET
Bureau LBTP

African Development Bank (ADB)
Mr. Yuma

Bureau de Developpment - Abidjan
Mr. Agnin Erecoumou

Private Consultant
Mr. Diara Bora

NIGERIA

Federal Ministry of Industry
Mr. M. E. P. Udebluwa, Permanent Secretary

P.E. (West Africa Ltd) - Management Consultants
Mr. I. Afam Mwanze
Mr. K. C. Scoones

Coopers and Lybrand Associates - Accountants and Consultants
Mr. Alan N. Lathom

Nigerian Institute of Scientific and Economic Research - (NISER) - Consultancy Services Unit, Federal Ministry of Industry
Mr. O. Akin Adubifa, Co-ordinator and Principal Consultant
Mr. O. H. Oluwole, Senior Management and Technical Consultant
Mr. E. E. Chibundu, Senior Consultant in Management

NISER - Ibadan Business and Industrial Consulting Division

African Regional Centre for Engineering Design and Manufacturing (ARCEDEM)
Mr. Banjo
Mr. Kundu

Leyland Motors (Nigeria) Ltd - Ibadan

Federal Ministry of Science and Technology - Lagos
Mr. F. A. Adetula, Secretary for Finance and Administration
Mr. J. A. Mesele, Principal Secretary
Mr. M. U. Nnaji, Assistant Secretary

Federal Ministry of Works and Surveys - Lagos
Mr. Menkiti, Secretary, Administration and Finance
Mr. Abraham, Director of Buildings
Mr. Adabekum, Director, Federal Surveys
Mr. Mbah Director of Lands Engineering
Mr. Edozien, Director, Electrical Division
Mr. Obosi, Director Highway Division
Mr. Esaka, Director, Mechanical Engineering Division

The Association of Consulting Engineers of Nigeria (ACEN)
Engr. Obi Obemba, President
Eng. F. A. O. Phillips, Past President

Nigerian Institute of Management (NIM)
Mr. Martin A. Oworen, Deputy Director General

Federal Ministry of Planning
Mr. U. J. Ekatte, Secretary Finance and Administration
Mr. C. O. Dokogi, Principal Secretary
Mr. F. A. Olalbaju, Senior Assistant Secretary

Ministry of Industry
Syd. Alhaji Mogahi Mohammed, Director of Project Implementation
Mr. S. O. Uaboi, Assistant Director, Small Scale Industries
Mr. S. A. Longe, Assistant Director, Engineering Division
Mr. M. P. U. Obaro, Assistant Director, Policy and Planning Division
Mr. R. O. Faloye, Assistant Secretary, Upper Policy and Planning Division

ZAIRE

SPE (Bureau du Président Fondateur - Président de la Republique)
Prof. Dr. Ing. Malu Wa Kalenga, Chargé de Programme

World Trade Centre Zaire - Centre du Commerce International de Zaire (WTCZ)

Ministry of Planning
Mr. Citoyan Usala, Acting Permanent Secretary

Ministry of Economic Industry and Commerce
The Acting Permanent Secretary

Ministry of Foreign Affairs

SUDAN

UNDP
Mr. Garth Ap Rees, Resident Representative

Ministry of Industry
Mr. Yves Biry, Chief Technical Advisor, UNDP

Management Development Centre
Mr. Muzzamil Abdul Hamid, Deputy Director General

Ministry of Finance
Mr. Donald S. Pearson, UNDP/IBRO Planning Assistance Training Project

Ministry of National Planning
Mr. Ibrahim Omar Habani, Director Project Planning Unit

ALGERIA

UNDP
Mr. Salah Borjini

Ministry of Habitat

SNERI (Société Nationale d'Etudes et de Realisations Industrielles)
Mr. A. Missoume, Director-General
Mr. H. Saibi, Director
Mr. A. Yeddou, Director

Ministry of Light Industries
Mr. Sabai, Director-General

EGYPT

UNDP
Mr. Shams El Din

Engineering and Industrial Design Development Centre
Dr. Yusuf Mazhar
Eng. Samir El-Sayed

General Organisation for Industrialization (GOFI)
Eng. Abdel Moneim El-Mehelmy, Director, Central Administration
Eng. Shawky El Nahas, Director, Central Administration for Industrial Planning

Egyptian International Centre for Agriculture
Mr. El Sayed Fahim, Director

ZIMBABWE

UNDP
Mr. Herbert Onitiri, Resident Representative

Small Industries Advisory Service
Mr. Selwyn H. Evans, Chief Executive

Zimbabwe Institute of Management (ZIM)
Brigadier John R. Probert, Chief Executive

Institute of Business Development
Mr. A. P.S. Sheridan, Director

Associated Chambers of Commerce of Zimbabwe (ACCDZ)
Mr. Keith Nicholson, Director

Ministry of Manpower Planning and Development

TANZANIA

Arusha International Conference Centre
Mr. Cutinha

Regional Planning Office - Arusha
Mr. Alan Johnston, Director

Centre for Integrated Rural Development (CIRDAFRICA)

Milvers Associates
Private Engineering and Architectural Firm

SIDO - Regional Office
Mr. E. S. Ngatta
Mr. Mike Laiser

Development Alternative Institute, AID
Mr. Charles Sweet

Eastern and Southern African Management Institute (ESAMI)
Mr. J. J. Okumu, Director
Mr. P. T. Achaye Were, Consultant Transport Eng.
Mr. J. M. Mukawi, Registrar
Mr. R. P. Joshi, Chief Management Science Divison
Mr. T. S. Mwanyika, Consultant Management accounting

UNDP
Mr. D. Outtara, Resident Representative
Mr. S. K. Henein, UNIDO
Mr. Stone, Project Manager, TIRDO
Ms. Nilsson-Dag, J.P.O.

Ministry of Industry
Mr. E. Hanti, Director of Manpower Development
Mr. F. Kamuzoru, Director of TISCO
Mr. W. M. Barango, Civil Engineer

Mrs. R. Lugembe, Director of Manpower Administration
Mr. A. Kanylili, Director, Metals and Engineering

National Institute of Productivity
Mr. N. K. M. Mwambene, Managing Director

National Development Corporation
Mrs. Joyce Mpazi, Group Training Manager

Industrial Management Services (IMS)
Mr. V. C. Kumaran

APPENDIX: 4

LIST OF CONSUTANCY ORGANISATIONS

The attached listing is from countries visited and it is not to be construed as a comprehensive directory of consultancy firms or individuals. This listing was compiled from information made available to the UNIDO/ECA mission.

The listing is not complete as in several countries data was not immediately available or no compilation had been performed.

NIGERIA

- Nigeria Institute of Management
  7, Alhaji Murtala Animashun close, Surulere
  P.o. Box: 2557,
  Lagos

- Enterprise Consulting Group
  P.o. Box: 6853
  69C Ajao Street
  Ijeja,
  Lagos

- Cooper &Lybrand Associates Ltd
  Lapal House (2nd Floor)
  235, Igbosere Road
  Lagos

- Centre for Management Development
  Ikorodu Road
  P.o. Box; 7648
  Lagos

- NISER
  11 Kofo Abayomi Street
  Victoria Island,
  Lagos

- Impact Management Services
  Q11 Lagos Street
  P.o. Box: 828,
  Kaduna

- Project Management Ltd
  Gidan Shehu Ahmed, Bank Road
  P.o. Box: 422,
  Kano

- AW Consultants Limited
  94 Broad Street
  P.o. Box: 965
  Lagos

- Peat Marwick, Mitchell & Co.
  P.o. Box: 549
  Lagos

- AFRICON Ltd,
  P.o. Box: 2375
  Kano

- Management & Research Partners Ltd
  4, Association Avenue
  Ilupeju
  Lagos

- Skoup & Company Limited
  45, Martins Street
  Lagos

- Price Waterhouse & Co.
  P.o. Box: 2419
  Lagos

- African Development Consulting Group Ltd
  27, Commercial Avenue
  Yaba
  Lagos

- ABC Management Group
  13, Ijaoye Street, Jibowu
  P.o. Box: 41,
  Oshodi
  Lagos

- Uzamaa Consultants Ltd
  1, Okilane/Ajose Street, Maryland
  P.o. Box: 7554
  Lagos

- Devplan & Co.
  1, Sulu Bolaji Street
  Lagos

- Amana Consulting Engineers
  47, Marina
  Lagos

- Associated Consultants & Research Engineers
  15, Nike Avenue, Ekulu
  Enugu

- Cedar Consult (Nigeria) Consulting Engineers Ltd
  36C Ajisafe St., Graikeja
  Lagos

- Communication Consultants (Nigeria) Ltd
  35A Ogui Road
  Enugu

- Engineering and Express Transport Enterprises
  (Mechanical & Electrical Consultants)
  132 Ogui Road
  Enugu

- Harolodo & Associates
  12 Adeniran Ogunsanya Street
  P.o. Box: 3184, Surulere
  Lagos

- Hollek & Associates
  26 Babs Animashawn Road, Surulere
  Lagos

- McCowan, Alistair & Associates (Nigeria)
  131 Broad Street
  P.o Box: 3402,
  Lagos

- Morgan Omonitan & Associates
  24 Strachan Street,
  Lagos

- Omisore, Afolabi & Partners
  2 St. Finbarrs,
  College Road
  P.o. Box: 4988, Yaba
  Lagos

- GECO Engineering Co. (Nigeria) Ltd
  27/29 Martins Street
  Lagos

- Sam Onabanjo Group Engineers
  6 Latunde Labinjo Ave, Ikorodu Road
  Palmgrove, Lagos

- Ward, Ashcroft & Parkman (Nigeria)
  9 N/Azikiwe Street
  Lagos

- MMCS Ltd
  P.M.B. 1086
  Yaba - Lagos

- Nigerian Economic Welfare Services
  (New Nigerian Bank Building)
  P.M. Bag 1112
  Benin City

- NICODEP Group Limited
  Development Consultant
  P.O. Box 9225
  LAGOS

- Management and Investment Consultants Limited
  (15th Floor - CocoaHouse)
  Ibadan

- BEN-JOHN Associates
  SW3/640 Ososami Road
  Ibadan

SUDAN

- Interplan
  P.o. Box: 1656
  Khartoum, Sudan

- Industry Engineering Consultancy Co. Ltd
  P.o. Box: 534
  Khartoum, Sudan

- Industrial Research & Consultancy Institute
  P.o. Box: 268
  Khartoum, Sudan

- Khartoum Industrial & Commercial Consultancy House
  P.o. Box: 2467
  Khartoum, Sudan

- SIBDO Engineering Consultancy
  P.o. Box: 6132, People's Hall
  Khartoum, Sudan

- Sudanese Investment & Consultants Co.
  P.o. Box: 1887
  Khartoum, Sudan

- Sudanese Irrigation Consulting Engineers
  P.o. Box: No. 1980
  Khartoum, Sudan

- Tanmia Independent Consultants
  P.o. Box: 446
  Khartoum, Sudan

• United Industrial and Consulting Co.
P.o. Box: No. 1239
Khartoum, Sudan

IVORY COAST

- CIERIE
  B.P. 21141
  Abidjan

- SIGES
  B.P. 30124
  Abidjan

- SIETCO
  B.P. 2353
  Abidjan

UPPER VOLTA

- SAED
  B.P. 593
  Ouagadoudou

- SIEGO
  B.P. 761
  Ouagadoudou

MALI

- SECCP- MALI
  B.P. 1407
  Bamako

- BARA/Conseils
  B.P. 1806
  Bamako

- Cabinet International
  CAMARA
  B.P. 1717
  Bamako

NIGER

- I.R.S.H.
  B.P. 318
  Niamey

SENEGAL

- SONEO
  142, rue de Bayeux
  B.P. 2084
  Dakar

- ORGATEC
  10, rue de Essarts
  Dakar

- ARC
  B.P. 3201
  Dakar

- SAII
  B.P. 1400
  Dakar

TOGO

- Cabinet EFOGERC
  B.P. 2250
  Lomé

- CEFEC Engineering
  B.P. 2810
  Lomé

- CEPOGI Interafrique
  Lomé

- AUBA
  B.P. 3481
  Lomé

- BETA
  4, rue de Gouverneur
  Mentagn 4 - B.P. 4803
  Lomé

GHANA

- Sages Engineering Consultants
  P.o. Box: 4422
  Accra

- Cones Engineering Consultancy
  P.o. Box: 8432
  Accra

- Engineering and Industrial Consultants
  P.o. Box: 2547
  10, Nima Avenue
  Accra

- B.A.B. Consultancy
  P.o. Box: 5231
  Accra

- Associated Consultants
  P.o. Box: M259
  Accra

- Lutterodt and Associates
  P.o. Box: 3524
  Accra

- ASAFO BOAKYE and Partners
  P.o. Box: 7186
  Accra

- Dewger, Grutter and Partner
  P.o. Box: 3504
  Accra

- ANSAH and PARTNERS
  P.o. Box: 6654
  Accra

- TWUM BOAFO AND PARTNERS
  P.o. Box: M 156
  Accra

- Jacobson and Partners
  P.o. Box: 7065
  Accra

- Consulting Engineering Services
  P.o. Box: 3545
  Accra

- ACKEYS Consultancy
  P.o. Box: 7065
  Accra

- Design Consultants
  P.o. Box: 6567
  Accra

- OWA CONSULT
  P.o. Box: 3169
  Accra

- CONSTEL Engineering Consultancy
  P.o. Box: 9328
  Accra

- E.N. Omaboe Associated Limited
  P.o. Box: 6251
  Accra

- COWI Consultants
  P.o. Box: 31 69
  Accra

- Resources Agency
  P.o. Box: 7456
  Accra

- Development Consultants
  P.o. Box: M 86
  Accra

LIBERIA

- WAC: West Africa Consultants
  P.o. Box: 2276
  Monrovia

- Milton and Richard
  P.o. Box: 107
  Monrovia

- Management and Development Services
  P.o. Box: 1740
  Monrovia

- Cyril Pride Davis Consultants
  20 Camp Johnson Road
  P.o. Box: 1611
  Monrovia

- Reeves and Associates
  P.o. Box: 1563
  Monrovia

- International Management and Research Cooporation
  P.o. Box: 1143
  Monrovia

- SHERMANCO
  P.o. Box: 2036
  Monrovia

- WALLACE INTERN-INC
  P.o. Box: 2261
  Monrovia

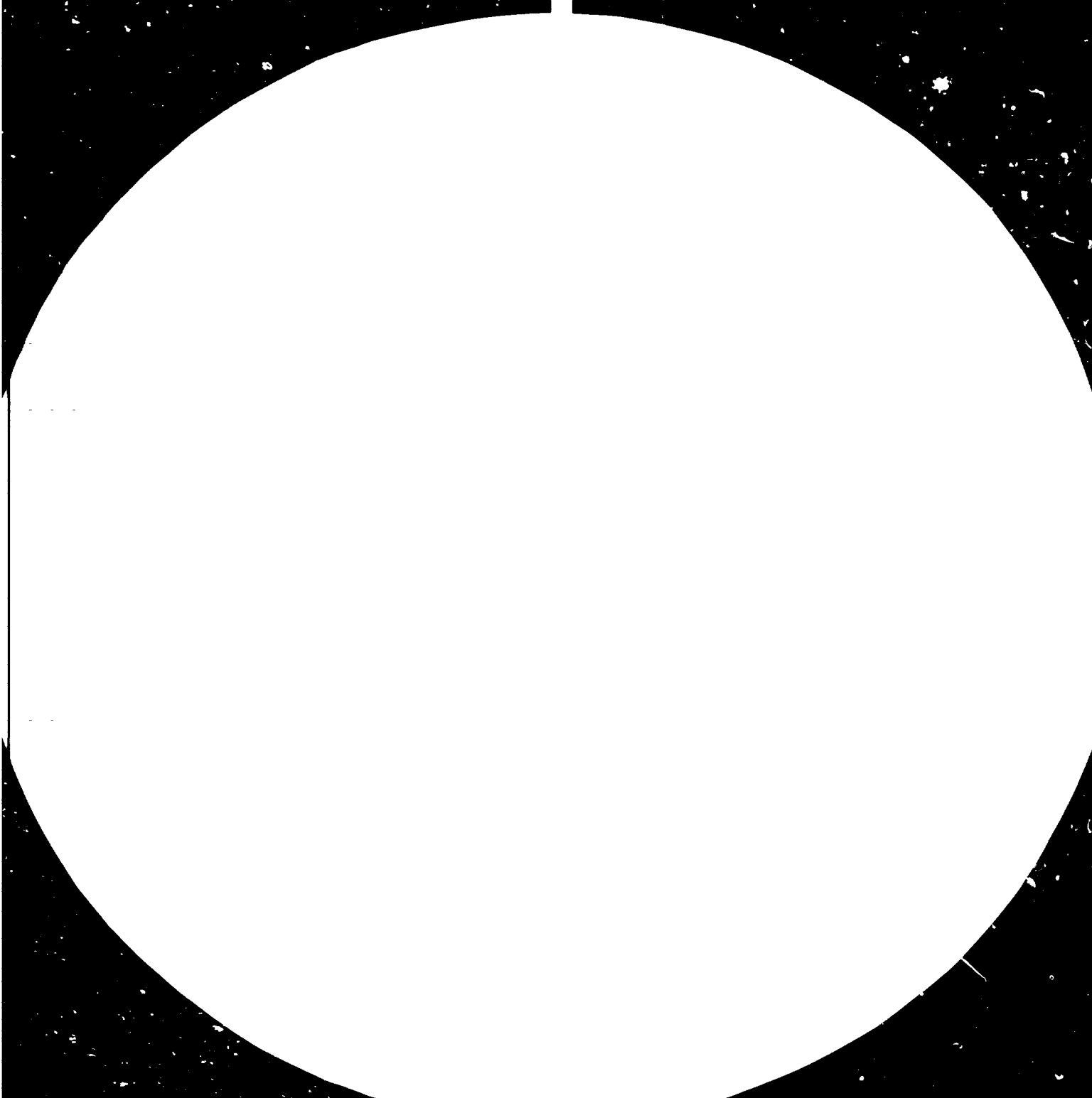
SIERRA LEONE

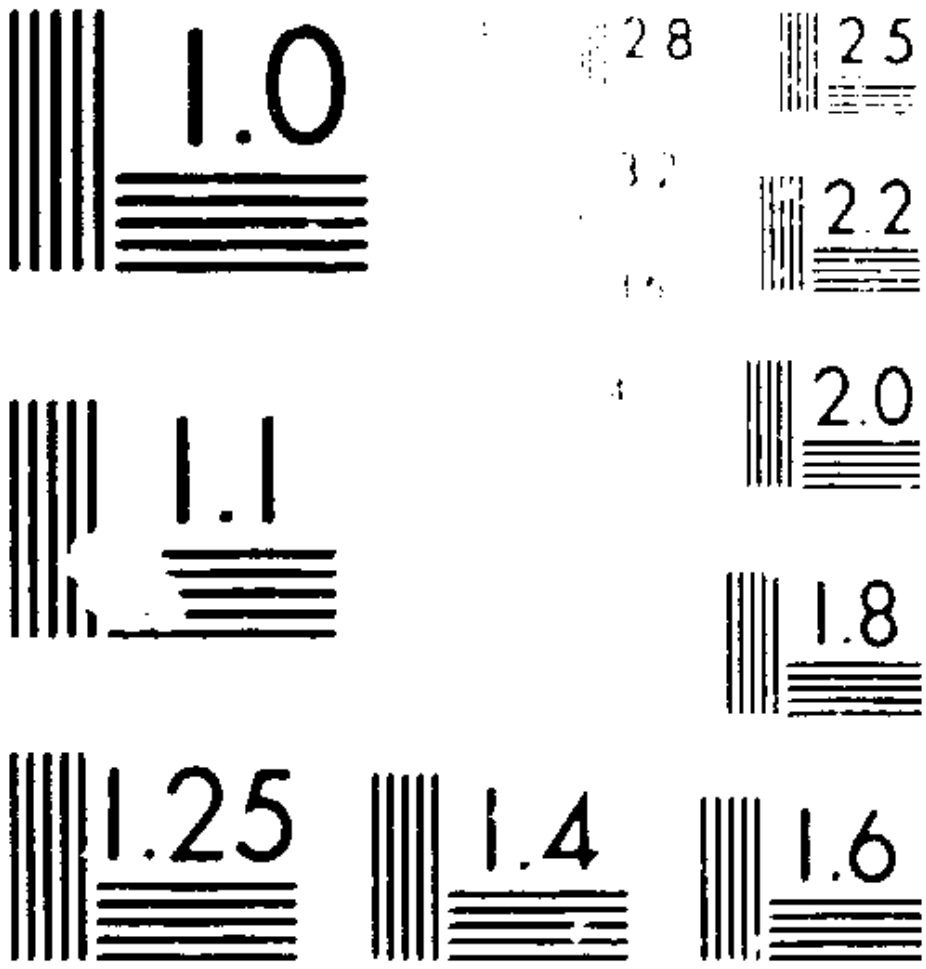
- Edward Davis and Associates
  P.o. Box: 1100
  Freetown

- TECHSULT and Company
  29, Percival Street
  Freetown

- OLU WRIGHT AND ASSOCIATES
  P.o. Box: 1189
  Freetown

- ENGCON Ltd.
  P.o. Box: 287
  Freetown

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KENYA

- Bahati N. Semo & Partners
  P.o. Box: 73767
  Nairobi

- Chauhan Kiptoon & Partners
  P.o. Box: 48681,
  Nairobi

- African Development and Economic Consultants
  P.o. Box: 30707
  Nairobi

- Gathaiya Njagi & Partners
  P.o. Box: 72649
  Nairobi

- ITET Consultants Limited
  P.o. Box: 52355
  Nairobi

- Kitololo and Partners
  P.o. Box: 47437,
  Nairobi

- Otieno Odongo & Partners
  P.o. Box: 54021
  Nairobi

- Westconsult
  P.o. Box: 50222
  Nairobi

- Sapamo Engineering Consultants
  P.O. Box 14331
  Nairobi

APPENDIX: 5

COST OF CONSULTANCY SERVICES

During the mission the UNIDO/ECA team members were able to gather information on estimated fees charged by various International and local consultancy organisations. Since exact information could not be obtained the table included here gives some indication on the approximate cost of consultancy serivces in Africa.

COUNTRY	FOREIGN CONSULTANTS: MAN MONTH US$	LOCAL CONSULTANTS: MAN MONTH US$
Kenya	18 to 20,000	7,500
Zambia	32,000	21,500
Botswana	-	-
Rwanda	16,000	-
Burundi	-	-
Senegal	20,000	7,400
Ivory Coast	20,000	7,400
Nigeria	26,500	13,300
Zaire	16,000	4,000
Sudan	13,000	7,000
Algeria	-	-
Egypt	18,000	6,000
Zimbabwe	-	-
Tanzania	25,000	6,000