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PROMOTION OF TECHNICAL AND INDUSTRIAL CO-OPERATION
BETWEEN DEVELOPING AND INDUSTRIALIZED COUNTRIES
THROUGH ACTIVE PARTICIPATION OF NGO'S*

Report of the visits to Nigeria, Ghana, Tanzania and Kenya

by

Leon Kopcinski
UNIDO Consultant

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Terms of Reference

International technical and industrial co-operation has become an important means for rapid industrialization of developing countries. The Lima Declaration and Plan of Action on Industrial Development and Co-operation invited developed countries to increase their co-operation with developing countries, in order to make available to these countries the resources required to sustain the growth effort essential for acceleration their social and economic development. Co-operation among developing countries should also be promoted and improved by sharing of experience in industrialization by those who have already acquired this knowledge.

following recommendations of the Lima Conference and suggestions expressed by delegations to the Industrial Development Board, UNIDO has approved a project to send four consultants to a number of selected developing countries. The consultants will, in close co-operation with appropriate non-governmental organizations (chamber of commerce and industry, federations of industry and/or manufacturer's associations), identify industrial branches and areas amenable to co-operation with companies or institutions in developed and/or other developing countries. The consultants will also contact already identified enterprises and institutions willing to enter into co-operative arrangements with similar organizations from developed/developing countries in order to prepare background papers and basic informations on envisaged forms of co-operation which will serve for the organization of meetings during 1978 between identified partners from developing

countries visited and similar organizations from developed/developing countries.

In particular the consultants will undertake the following:

1. Identify industrial branches or sectors suitable for international technical and industrial co-operation,
2. Identify organizations and/or industrial institutions dealing with promotion of technical and industrial co-operation, review their programmes and needs in establishing co-operative links with international and national organizations dealing with the same subjects (UNIDO, ICA, etc.)
3. Identify firms, institutions interested and capable of co-operation, collect and/or process specific proposals for technical/industrial co-operation,
4. Assist these firms or institutions in identifying prospective areas of co-operation with similar partners from developed/developing countries including the following:
 - Manufacturing co-operation (subcontracting)
 - Joint ventures
 - Joint constructions of industrial projects
 - Technical assistance (sending experts, transfer of patents, licenses)
 - Transfer of technology and know-how for new products
 - Training of managerial and technical personnel
 - Joint technological research
5. Identify specific products (production line) for which these enterprises would need partners for co-operation, including:
 - Transfer of production plants from developed/developing countries (redeployment)
 - Transfer of technology
 - Joint investment (joint ventures)
6. Assist these firms and institutions in formulation proposals for identified specific projects for co-operation in order to submit these to UNIDO for further action, and specifically for the preparation of envisaged meetings during 1978.
7. The consultants will orient and assist identified enterprises and institutions on possibilities for requesting UNIDO's assistance in establishing and promoting forms of co-operation with partners from developed/developing countries,

8. Based on findings in the countries they will visit, the consultants will prepare a report on their mission which will include recommendations for follow-up action, and particularly those concerning meetings to be organized in 1978 in Poland and Yugoslavia.

INTRODUCTION

The introduction of industrial branches/sectors of industry suitable for international technical and industrial co-operation and the identification of the institutions or firms having interest to establish co-operation links with other enterprises or institutions from developed/developing countries presents a very complex task.

The reason for that, its way of development and the success of such activity depends in big extend on the circumstances and conditions in which the identification is carried out.

The consultant visited the following four countries:

N I G E R I A

G H A N A

T A N Z A N I A

K E N Y A

In all four visited countries independantly of the political and economical conditions this UNIDO activity has been accepted and appreciated by all personalities and people contacted, as a new practical way to assist in industry development programmes.

The contacts and discussions were established with most important and outstanding personalities from non-governmental organizations as well as with officials from government institutions.

The discussions held were in an open way and frank atmosphere.

Out of many subjects only several have been selected as priority demands for consideration and UNIDO's follow-up.

It is generally acknowledged that industrial and technical international co-operation is the only way to establish continuous relations which will to great extend replace the ordinary export/import trade relations of the traditional commodities or raw materials.

It is evident that many countries tend to become self-sufficient in many areas of industrial production mainly for the need of utilization of available raw materials, covering the demand for many products, liquidation of unemployment and improvement of the balance of payments.

It is worthwhile to mention that full co-operation of responding UNDP/UNIDO officers followed these visits. The consultant likes to extend his gratitude to all of them for their assistance and personal involvement.

All that, including the approval expressed in the Terms of Reference, although not completely attributed to the results of this undertaking.

N I G E R I A

On request of the UNDP Representative in Lagos the Federal Nigerian Ministry of Economic Development has proposed a programme of visits of the consultant to several Ministries and Institutions. The following institutions have been visited and the discussed topics are as bellow:

1. CABINET OFFICE - Economic Department-Development PolicyCoordination

Undersecretary - Dr A.Sagay

Support is given to any development programme. Proposals or offers send to Nigerian Institutions should be given in a copy to the following address: Permanent Secretary, Economic Development, Cabinet Office, Lagos.

2. MINISTRY OF EXTERNAL AFFAIRS

Acting Permanent Secretary - H.E.Ambassador T.A.Afolabi

Special attention is being paid to any assistance in rural and economic development. The Ministry appreciates the initiative of UNIDO of promotion of technical and industrial co-operation between developing and industrialized countries.

3. FEDERAL MINISTRY OF INDUSTRY - Economic Division

Principal Secretary - Mr.A.O.Oluwunmi and Mr.Fadaka

- Request has been made for Initial Study of Small Scale Industrial Estab^x which could be utilized as standard project for most of the urban agglomerations. Service and repair workshops of different specialities should be incorporated as an integral part of such a project.
- With the existing motor car assembly plants, development of an industry manufacturing motor vehicle parts and components is very essential to reduce the rate of imported components.

From the Polish side a reference offer for the design of a manufacturing plant of bearings and a motor industry oriented foundry will be provided as requested on a bilateral base.

- Demand for a feasibility study for manufacturing of tractor and animal traction agriculture implements has been envisaged.
- In the industrial sector there is an unlimited demand for technical training facilities.

4. NATIONAL SCIENCE AND TECHNOLOGY DEVELOPMENT AGENCY

8, Strachan Street, Lagos, Director - Mr. Oragwu

Very high demand exists for training facilities in food processing, preservation technology and packing technology.

More detailed and specified demand will be prepared via local UNIDO agency with the request for assistance.

5. FEDERAL MINISTRY OF AGRICULTURE AND NATURAL RESOURCES

Forestry Division 17/27 Moloney Street, Lagos - Mr. Falobi

There is shortage of qualified personnel and any training opportunities would be most welcome.

During the discussion a request has been made for providing literature concerning wood prefabricated bridge construction technology.

6. FEDERAL MINISTRY OF WORKS - HOUSING DIVISION

Deputy Secretary - Mr. L.O. Lawal

Low cost housing is of particular interest and importance.

Many prefabricated systems are being used as experiments to find the most suitable and economically acceptable. The application of the Polish prefabricated programme in Nigeria requires additional study of the local conditions and the possibilities of utilisation of materials available in the countryside other than cement such as gypsum lime and others.

G H A N A
=====1. MINISTRY OF INDUSTRIES

Senior Principal Secretary - Mr.G.T.Oddoye

- Out of the existing industries the textile industry requires special attention. The machines are of different origin, age and utility. Inventory report and recommendations concerning repair, replacement or modernization is badly needed and request is being made for that kind of expertise. There exist the intention of manufacturing programme of spare parts, components as well as manufacturing of selected textile machines.
- Like the textile industry the situation of the plastic processing industry requires an inventory study and recommendations for the future maintenance and manufacturing process.
- Feasibility study for development of small scale industry estate in the area of TEMA HARBOUR would be appreciated under the assistance of UNIDO.

2. FORESTRY DEPARTMENT

The Forestry Department is very much interested in all kinds of training facilities concerning forestry management and exploitation as well as wood processing technologies.

3. MINISTRY OF LAND AND MINERAL RESOURCES

Commissioner - Col. Ibrahim

This visit is to be considered as a courtesy visit only.

TANZANIAMINISTRY OF LANDS, HOUSING AND URBAN DEVELOPMENT

Low cost housing programme for the country area based on locally available raw materials such as gypsum and lime and on low skilled labour would be most suitable and welcome. The so far introduced prefabricated housing systems failed due to high cost and requirement of mechanical handling equipment. Interest has been shown to the Polish prefabricated system being the subject of UNIDO organized symposium in 1975 in Poland. Feasibility study of locally available raw material and its suitability for the introduction in this system would be needed before any further action could be considered.

- Assistance would be required for the organization of cottage industry and training facilities in that line of industry.

S I D O SMALL INDUSTRY DEVELOPMENT ORGANIZATION

Director General - Mr. B. P. Mramba

SIDO being a parastatal organization coordinates the development of "small scale industries in urban areas and in the countryside all over Tanzania. Training facilities are being organized but require support in teaching personnel in theory and practical education. Sido would be interested to start manufacturing - tools, locks, hardware and surgical instruments. Feasibility study, technology transfer and supply of equipment would be required as a complex project. Foundry of nonferrous metals and cast iron are in demand.

MINISTRY OF COMMERCE AND INDUSTRY

Director-Investment and Implementation - Mr. E. B. Toroka

The intention to construct a workshop for the manufacturing of spare parts for the textile industry and the production of selected textile machinery is under consideration. The inventory

report has been provided by UNIDO by Polish experts. Training of manpower for the maintenance and technological operations for the textile industry and cement plants is the main headache which requires immediate solution. Any assistance in this particular field would be most welcome.

TISCO TANZANIA INDUSTRIAL STUDIES AND CONSULTING ORGANIZATION

P.O.Box 2650 Dar Es Salaam, Telephone 31421/2/3

Director General Mr. E. J. Kamuzora

Chief Consultant Mr. Christer Siegbahn

TISCO prepares feasibility studies for all industrial development projects in Tanzania. In specific areas of activity experts/consultants will be needed under UNIDO assistance on short term contracts.

K E N Y AMINISTRY OF COMMERCE AND INDUSTRY

Industrial Survey and Promotion Center ISPC

D.A.M.Monteiro - Industrial Adviser

Mr.T.M.M.Kulu " "

Mr.S.S.Gill " "

Mr.T.E.O.Hwencha " "

Out of several subjects discussed the low cost housing received special attention. The technology for the manufacturing prefabricated components for housing construction would be welcome. Proposal has been made to arrange a local demonstration in a pilot plant of the production technology of the prefabricated concrete components and to check the usefulness and economy of the system.

Textile industry - Technology for the production of spare parts for the textile machinery is in demand.

There is an intention to start production of window glass.

Feasibility study and offer for co-operation would be expected.

KENYA INDUSTRIAL RESEARCH AND DEVELOPMENT INSTITUTE

Senior Research Officer - Mr.I.M.Mbaka

Research Officer - Mr.K.E.Ekwaro

In the low cost housing programme this Institute would be ready to participate in organising the pilot plant, demonstration of production of prefabricated components and construction of experimental buildings, according to the Polish technology.

In woodprocessing the Institute has demands for technology transfer for the following:

charcoal production of sawdust and coconut -shells - any proposal in this technology would be accepted .

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Chairman - Professor Gaccia

Professor Gaccia paid great interest in the technology of prefabricated housing system, considering the cost factor as most essential. If the lower cost factor, compared to the actually applied conventional construction, could be successfully achieved the project could find wide application in the Kenyan housing programme. The idea of pilot plant and demonstration of the production of components and construction under local circumstances at site in Kenya has been considered rational and justified.

MINISTRY OF NATURAL RESOURCES -Forestry Department

The Kenya Low Cost Timber Bridge Project - Mr.Petersen

While in Nigeria in the Forest Department I was requested for the literature, design and technology for timber made prefabricated bridges. The solution to that request has been found in The Kenya Timber Bridge Project. I handed over to Senior Industry Development Field Adviser - Mr.Kastengren the address of the interested Nigerian Party with the request to contact both parties for direct links.

ECONOMIC HOUSING GROUP LTD - Nairobi P.O.Box 24996

Managing Director - Mr.C.C.Bengough

Well organized manufacturing plant. Applied technology in manufacturing of prefabricated houses of different sizes and utilities should be suitable for several countries of similar climate conditions. The technology of manufacturing knocked down furniture could also find application. The proposal of the Company for cooperation under UNILCO sponsorship is enclosed in the Company's letter EHG/H/1.2 dated Feb.16,1978 and recommended for favourable consideration



0 1 1 2
A member of the
ECONOMIC HOUSING GROUP

P.O. Box 24368, Nairobi
Telephone Kijabe II Y7 Factory Nairobi Office: 556949/554099
Manager's House Karen 2429

Manufacturers of prefabricated buildings,
joinery and furniture.

Reference: EHG/II/1.2

16th February, 1978

Mr. Leon Kopicinski,
c/o Room 105,
Ambassadeur Hotel,
NAIROBI.

Dear Sir,

Industrial Cooperation on Timber Low Cost
Prefab Housing and Knock-Down Furniture

I refer to our meeting of today's date and wish to confirm that we shall be pleased to cooperate with UNIDO in supplying 'Technical Know-How' on the following Low Cost Products.

- (i) EHG - Knock-Down Timber Furniture
- (ii) EHG - Prefab Timber Housing System
- (iii) EHG - Portakube Module Timber Housing Units
- (iv) EHG - Portal Frame Timber Housing Units

We have developed a professional technology in the use of timber for the above products which we feel confident may be of interest to other developing countries. We are quite prepared to provide this technology to other developing countries under the sponsorship of UNIDO. I have in the past had some correspondence with both Mr. Bassili and Milliger of UNIDO on the subject of low-cost timber housing and furniture as well as with various people in F.A.O. and the Bank.

Regarding the forthcoming conference on Forestry and Forest Industries in Poland, I would indeed be honoured to present a paper on the subject of Manufacturing Low-Cost Timber Housing and Furniture in Developing Countries; I would however require some notice as I have quite number of commitments this year, both here and in Canada.

It was a pleasure meeting you and discussing your project.

Yours faithfully,

C. C. BENGOUGH

Directors: W.L.K. Merson, C. C. Bengough (Canadian) T.A.S. Garland (British)

RECOMMENDATIONSLow Cost Housing Programme

The low cost housing - being an international problem requiring solution, the consultant recommends this subject as priority item for further follow up. It is recommended to organize under the sponsorship of UNIDO a pilot plant in Kenya and to hold experimental production of prefabricated components and to construct houses of different design. UNDP assistance in providing funds for the necessary equipment such as dies and vibrating machines would accelerate the pilot plant.

For Tanzania, recommendation is made to provide additional feasibility study concerning utilization of lime and gypsum in the prefabrication production process, before a pilot plant would be arranged.

Textile Industry

It is recommended to introduce to the Ministry of Industry of Ghana the Polish Textile Industry and Polservice to provide under UNIDO sponsorship the inventory report of the textile industry. The technology transfer for the production of spare parts and components of textile machines as well as the feasibility report for such industry in Ghana, Tanzania and Kenya would be made available from Poland.

Metalurgical industries.

Agro allied industries such as manufacturing of agricultural implements for animal and tractor traction are recommended in co-operation with Polish agro-industry, manufacturing implements for use in small farms for horse drive, as well for mechanized farming.

Industrial Estates

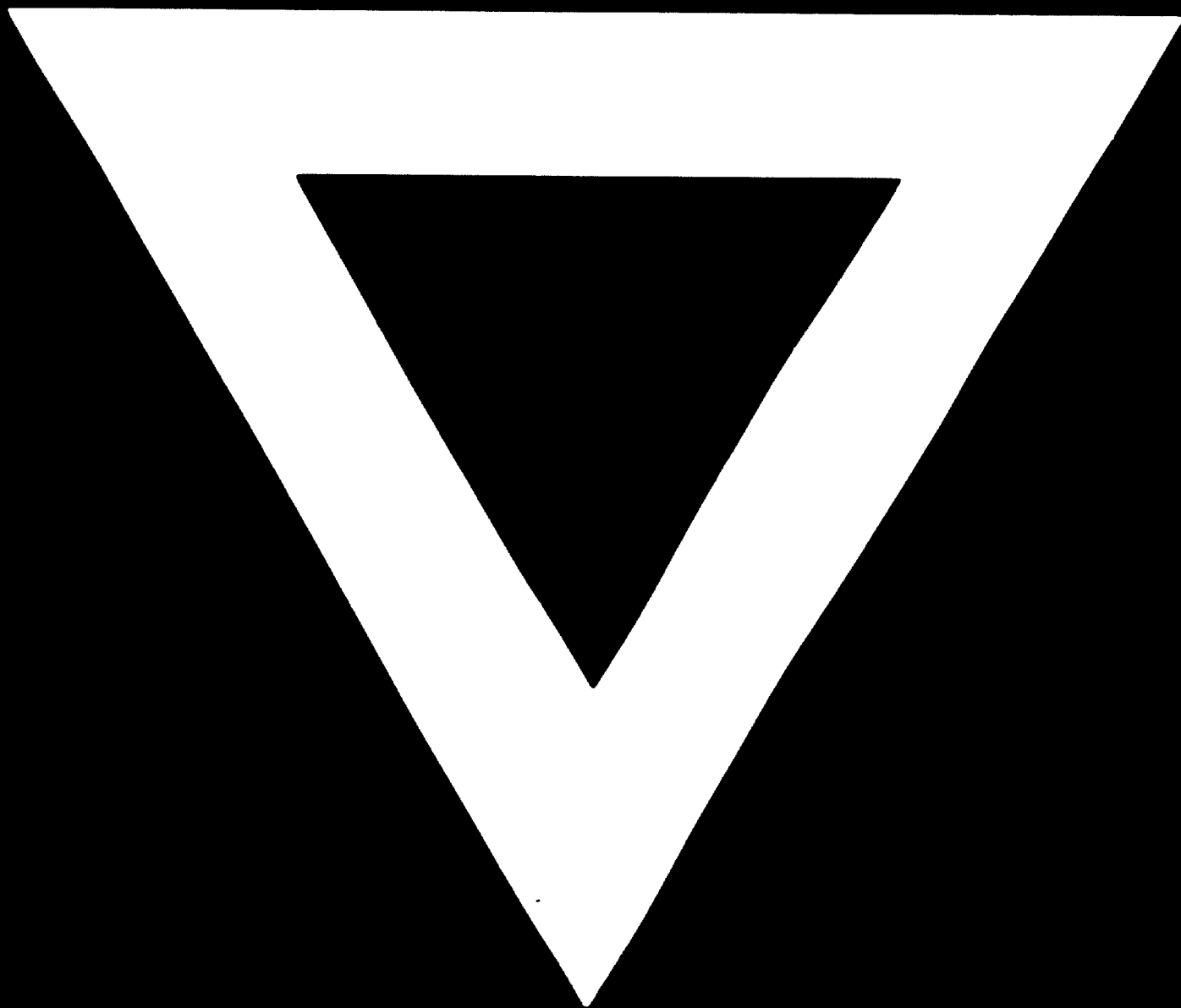
The experience of the Polish Union of Cooperatives in that branch is recommended.

Wood processing

In wood processing technology it is recommended to utilize the provided in 1978 in Poland meetings and invite participants from all visited countries to facilitate direct links for exchange of experience.

It is generally recommended for the development of activity in promotion of technical and industrial co-operation to visit the Polish Industrial and Technological Organizations in Poland by UNIDO Representatives and to discuss the programme of participation of all interested parties in this joint activity.

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