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Workshop on Co-operation among Developing Countries
in the field of Cement, Lime and Related Industries

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UNIDO'S PROGRAMME TO PROMOTE ECONOMIC AND TECHNICAL
CO-OPERATION AMONG DEVELOPING COUNTRIES**

Prepared by the
Section for Economic Co-operation among Developing Countries
Special Programmes and Activities
Department for Programme and Project Development

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I. INTRODUCTION

The importance of economic and technical co-operation among developing countries (ECDC/TCDC) has been recognized in a series of Resolutions and Declarations of the United Nations General Assembly and other international conferences. It has been emphasized that ECDC/TCDC is a valuable instrument for promoting the rational and efficient use of human, material, financial and technological resources available in developing countries for their individual and collective self-reliance.

The concept of ECDC/TCDC should be seen as a complement to north-south co-operation and is governed by the following criteria to distinguish from "traditional" forms of technical co-operation:

- (a) ECDC/TCDC activities involve the deliberate and voluntary sharing or exchange of technical resources, skills and capabilities between two or more developing countries for their individual or mutual development;
- (b) ECDC/TCDC is initiated, organized and managed primarily by developing countries themselves (Governments, public or private sector);
- (c) the financing and project inputs such as expertise, consultancy services, research and training facilities, equipment and supplies, in ECDC/TCDC activities should be the primary responsibility of the developing countries themselves, and outside resources should be considered as a catalyst and a supplementary contribution only;
- (d) ECDC/TCDC can include all kinds of economic and technical co-operation activities of developing countries and can be bilateral or multi-lateral in scope, sub-regional, regional or interregional in character.

II. JUSTIFICATION AND PRINCIPAL GUIDELINES FOR ECDC/TCDC

While there are many factors to justify ECDC/TCDC, the following three are of major significance:

- commonality in the aim for industrialization and national economic development,
- similarity in the experiences gained and problems encountered during the various stages of development and industrialization,
- complementarity in the available human, natural and financial resources as well as appropriate industrial technologies.

From the experience gained so far in the area of ECDC/TCDC, the following principal guidelines have emerged which should be observed if maximum results are to be achieved:

- (a) Solidarity and mutual assistance, through an appreciation of each other's needs and difficulties and the willingness to help each other;
- (b) Equality and mutual benefit, with all partners being equal and the co-operation being beneficial to all;

- (c) Stress on practical results, with a view to the real needs and capabilities of the developing countries;
- (d) Diversity in form, with flexible co-operation in any desirable form, s.a. exchange of experience, expertise and training opportunities, joint research and design, joint ventures, enterprise-to-enterprise co-operation and establishment of multinational production enterprises;
- (e) Orientation towards concrete action and projects, through the identification and matching of needs and capabilities and precise action plans for specific and concrete co-operation projects.

III. UNIDO'S ACTIVITIES FOR PROMOTING AND IMPLEMENTING ECDC/TCDC

In recognition of the growing importance of ECDC/TCDC activities, a separate section was established within UNIDO in June 1977, with the mandate to co-ordinate specific UNIDO activities in this area and to shape them into a coherent programme aimed at promoting ECDC/TCDC in respect of industrialization. After UNIDO became a specialized agency of the United Nations it has been maintained as a separate sub-programme.

UNIDO's ECDC/TCDC activities are primarily intended to:

- promote the spirit of solidarity and increase the awareness of the necessity and possibility of co-operation among developing countries;
- encourage the developing countries to adopt policies and regulations favourable to ECDC/TCDC in order to obtain maximum benefits from its application;
- to promote co-operation in specific industrial sectors as well as specific projects in order to strengthen the indigenous capabilities of the developing countries.

In accordance with these objectives, UNIDO has developed a comprehensive approach towards ECDC/TCDC with the following specific activities:

1. Development of projects for industrial co-operation among developing countries
 - A. Solidarity Ministerial Meetings for co-operation in the industrial development of selected least developed countries:

The main objective of these meetings is to identify the means of co-operation whereby the participating more advanced developing countries can assist in implementing specific industrial projects in the respective host least developed countries. The mechanisms of co-operation can take various forms such as a loan or a grant for the purchase of machinery or equipment, joint ventures, transfer of technology and know-how, training, industrial research and expertise services.

The experience gained so far has indicated that this kind of undertaking has two advantages: The meetings are usually attended by decision-makers and experts with authorization from their respective Governments to take decisions during the course of the meeting; concrete project proposals which have been circulated to the participating countries before the meeting are discussed, hence some tangible results may be achieved during the meeting.

There are, however, also considerable constraints impeding the implementation of the agreements reached during the meeting. One of the major constraints for successful implementation is the lack of financial resources especially the convertible currency component, because the participating developing countries also have their own financial difficulties.

To this date, 11 such meetings have been organized by UNIDO and the programme will be continued at the average rate of 2 meetings per year. At the beginning of October 1986, a Solidarity Meeting is taking place in Mali. At each meeting, approximately 30 - 35 co-operation projects are considered, and considerable results have been achieved despite the already mentioned constraints, which is illustrated by the following selected examples: a sugar plant was established in Bangladesh with the assistance of Pakistan, a brick plant was established in Sudan with the assistance of Yugoslavia, rural tanning units were provided to Lesotho by Algeria, and an industrial gloves and apron manufacturing unit was provided to Nepal by China.

B. Round-table Ministerial and High-level Meetings for co-operation in the promotion of industrial development on the basis of mutual benefit:

The objective of this type of meetings is to promote the economic and technical co-operation in specific industrial sectors on the basis of equality and mutual benefit, and to consider and agree upon concrete co-operation projects on a bilateral or multilateral basis, whereby the co-operation can take any form and the financing is to be secured by the co-operating partners themselves.

A Round-table Ministerial Meeting on Co-operation among Developing Countries in the Food-processing Industries was held in Novi Sad, Yugoslavia, in May 1985. During the meeting, which was organized in co-operation with the Government of Yugoslavia and required only a modest financial contribution from UNIDO, 109 specific co-operation projects were discussed. Further areas of co-operation with a view to matching existing capabilities and requirements were identified by the participants. The next such meeting will cover the field of agricultural machinery and take place in Argentina in November 1986.

An Afro-Asian Industrial Co-operation Meeting is scheduled in India also in November 1986 with the aim to formulate programmes and projects for industrial co-operation between African and Asian countries and organizations and to identify ways and means for their implementation at bilateral and multilateral level.

The experience gained so far in the above activities has shown that, if the areas of common interest for co-operation can be clearly identified, the concerned developing countries will participate in the programme voluntarily and enthusiastically and the follow-up of the developed joint programmes will be smoothly carried out by the co-operation partners.

C. Technical Workshops, Seminars, Advisory Services, Study Tours, Training and other Joint Industrial Programmes

In addition to the above two major sub-programme elements, a wide variety of activities is carried out on the basis of requests received from individual Governments and initiatives by the UNIDO Secretariat, as well as pursuant to recommendations emanating from UNIDO's System of Consultations,

recommendations of the Caracas Programme of Action adopted by the High-level Conference on ECDC in 1981 by the Group of 77, and in support of the Industrial Development Decade for Africa. They cover a wide range of programmes, s.a. study tours, observation visits, workshops and seminars, expert group meetings, provision of expert services and training opportunities, etc.

Furthermore, inventories of industrial capabilities in some of the more advanced developing countries are planned, of which the first in Brazil is presently being finalized in the field of small- and medium-scale industries. It is expected that such inventories will motivate partners in other developing countries to seek co-operative arrangements with the country of the inventory (public and private sector).

2. Identification of new forms and new institutional machinery for industrial co-operation

In pursuing these objectives, two major programmes have emerged during the last two years as new elements in UNIDO's ECDC/TCDC activities:

- the promotion of enterprise-to-enterprise co-operation among developing countries, and
- the establishment of multinational production enterprises in developing countries.

It has been felt that industrial co-operation among developing countries cannot be carried out in the most effective and efficient manner and reach a large scale if the main actors in the co-operation are not brought to the forefront. Increased attention should therefore be paid to enterprise-to-enterprise co-operation through which entrepreneurs can establish direct contacts to discuss the problems of common interest, to identify concrete areas of co-operation and to reach agreements on specific co-operation projects.

At the most advanced stage of the enterprise-to-enterprise co-operation, the establishment of multinational production enterprises may occur, leading to a more rational use of existing and potential resources, the expansion and diversification of production capacities, the encouragement of specialization and the identification of industrial complementarity. These undertakings are essentially confined to equity arrangements among two or more developing countries or their nationals in order to increase their industrial manufacturing output and encourage natural resources development through a process of mutual and concerted action for the creation, expansion and better utilization of their production potential as well as fostering their intra-trade flows and bargaining position in the world market. They should guarantee reciprocal benefits from economies of scale, specialization and resources complementarity.

The programme for the promotion of enterprise-to-enterprise co-operation was initiated in 1984 with the preparation of a study, which served as the background paper for an Expert Group Meeting on Enterprise-to-Enterprise Co-operation in the Field of Plastics Industry, held in Buenos Aires in November 1985, attended by 83 entrepreneurs from Latin American countries. Discussions concerned the main constraints and measures to be taken in the areas of production and commercialization, technology and training, information and promotion.

A project on strengthening the enterprise-to-enterprise industrial promotion and joint venture programme of the Islamic Chamber of Commerce, Industry and Commodity Exchange was initiated in 1984. It aims at strengthening the existing mechanisms and utilizing them to stimulate and guide private sector entrepreneurs in their contacts with interested co-operating partners in other countries by providing industrial promotion services. The second phase of the project comprises the organization of a meeting for the promotion of joint ventures among selected Islamic countries for the benefit of selected less developed Islamic countries which is scheduled to be convened in December 1986.

Also from other activities, concrete outputs on enterprise-to-enterprise co-operation arose. Discussions on the possibility of co-financing a new steel mill project between two African countries, the supply by one country to another neighbouring country of spare parts and ways and means of importing bauxite and manganese ore have, inter alia, resulted from the Expert Group Meeting on the Preparation of Guidelines for the Establishment of Mini Iron and Steel Plants with Special Emphasis on Africa in December 1985. The main items to be included in the guidelines for newcomers to mini iron and steel plants were agreed upon as well as the establishment of a regional association of African iron and steel producers. In 1987, a working group on sectoral co-operative arrangements will be convened along the same practical lines as the meeting on the plastics industry in Latin America. The above exercises will serve as a basis for the convening of an Inter-Governmental Meeting in the field of enterprise-to-enterprise co-operation.

On the subject of establishment of multinational production enterprises in developing countries, an Expert Group Meeting was organized in Vienna in November 1985. The experts agreed on the concept and the main items to be included in the guidelines for the establishment of multinational production enterprises in developing countries, which will be presented for review to a Working Group on Co-operative Arrangements for the Establishment of Multinational Production Enterprises among Developing Countries, aimed at discussing concrete possibilities for the establishment of such enterprises by bringing together previously identified potential partners. The outcome of these exercises will be reported to the Inter-Governmental Meeting on the Establishment of Multinational Production Enterprises to be convened in January 1987.

IV. UNIDO'S CRITERIA AND RESOURCES FOR THE IMPLEMENTATION OF ECDC/TCDC PROJECTS

UNIDO plays a catalytical role in promoting ECDC/TCDC and provides opportunities for the developing countries to meet, to learn from each others' experiences, to discuss and agree upon co-operation projects and to carry out joint activities. To this end, only relatively modest resources are required in order to achieve sizeable results. The normally applied financing formula foresees that the convertible currency components (international travel costs for experts, trainees and study tour participants, international transport costs for equipment etc.) of project costs is covered by UNIDO, while expenses to be incurred in the participating countries are covered - as much as possible - by themselves. In cases where these countries find it difficult to meet such expenses, particularly in the case of least developed countries, UNIDO endeavours to secure also financing of local cost components.

Special allocations of modest size are available from UNIDO's funds for technical co-operation projects for the support of ECDC/TCDC projects.

V. SCOPE FOR ECDC/TCDC IN THE FIELD OF INDUSTRY

The objective of this workshop is to review existing appropriate technologies for the development of cement, lime and related industries and to provide a forum for the exchange of information and experience with a view to identify technical resources and achievements in developing countries, which could be applied in other such countries. For this purpose, participants have been requested to prepare country monographs, which provide - inter alia - information on TCDC needs and capabilities, particularly in regard to production technologies, training facilities, technology transfer and laboratory facilities.

Among the priority areas of UNIDO for promoting ECDC/TCDC, which are also applicable to the development of cement, lime and related industry, the most relevant concern development and transfer of technology, training of personnel, management and consultancy services and - as their combined form - comprehensive industrial co-operation.

1. Development and transfer of technology

Possible forms of co-operation include: exchange of information and experience, flow of technology, solution to specific technological problems through joint efforts, creation of networks of scientific and technological institutions, innovations and research in advanced technology and co-operative efforts for enhancing the negotiating power of developing countries vis-à-vis suppliers of technology from developed countries.

Co-operation may start from an initial, simple form: the exchange of experience and information through technical visits, study tours and expert meetings, which can usually be organized at relatively low cost and represent the essential preliminary reconnaissance required to establish a sound foundation for further co-operation.

Co-operation among industrial research institutions in developing countries is already growing continuously and offers a vast potential for improved technological development.

2. Training of personnel

The pattern of industrial development in developed countries does not always respond to the specific needs of the developing countries. In many instances, training in another developing country can be achieved at a more appropriate level. The developing countries have had to face and overcome similar social, economic and technical problems, and there are marked similarities in their social, economic and industrial infrastructures - factors, which facilitate the transfer of knowledge. In addition, the costs of training in developing countries tend to be substantially less than those in developed countries.

It is important that existing training institutions in developing countries are identified, their potential and capabilities are assessed and that these institutions are strengthened. UNIDO provides regularly support to training institutions in developing countries under its "centres of excellence" programme with the aim to strengthen existing industrial training capacities and capabilities, to develop a network for improved co-operation among these institutions and to exchange information on programmes developed to meet the short-, medium- and long-term needs of developing countries.

3. Management and consultancy

An important factor for industry is management and consultancy, and each developing country should create its indigenous concept and system of management in accordance with its own socio-economic conditions.

Possibilities exist in the developing countries for a mutual exchange of know-how in the domain of management. Similarity in social and economic conditions and strategies as well as in the problems they are facing, underline the important role of joint research and exchange of knowledge and experience in management.

Consultancy and engineering design being a bridge between applied research and production, they play a significant role in the planning, installation and operation of plants, the development of utilization of indigenous industrial resources as well as in the expansion of exports.

Developing countries should make greater use of consultancy and engineering capacities from their own and other developing countries, develop methodologies and joint programmes to expand consultancy capabilities, and undertake joint consultancy projects at bilateral and multilateral levels.

4. Comprehensive industrial co-operation

Comprehensive industrial co-operation normally covers all arrangements between industrial enterprises of two or more developing countries for the joint development of new or existing industrial projects. Positive results have been gained in enterprise-to-enterprise co-operation which include co-operation in production through the delivery of spare parts, co-operation in the marketing of products, joint research and development, etc. Comprehensive industrial co-operation is obviously the most developed form of ECDC/TCDC. It combines the various aspects of industrial co-operation mentioned in the above paragraphs, namely the development and transfer of technology, training, management and consultancy into one well-planned comprehensive co-operation project. Enterprise-to-enterprise co-operation and the establishment of multinational production enterprises offers particularly promising scopes for comprehensive industrial co-operation.

VI. CONCLUSIONS

Economic and technical co-operation among developing countries offers promising possibilities for the promotion of industrial development in developing countries. A sound building materials industry is one of the important conditions for a continuing development of industry promoting employment and social welfare. Cement, lime and related industry are sufficiently developed in some developing countries to serve as resource for its development in other developing countries, particularly in the least developed countries. ECDC/TCDC offers an appropriate frame for such activities.

To achieve tangible and concrete results, the principal guidelines must be respected:

- solidarity and mutual assistance
- equality and mutual benefit
- stress on practical results in accordance with real needs and capabilities
- diversity in forms of co-operation
- orientation towards project-wise co-operation.

Not only inter-governmental co-operation should be sought, but also attention must be given to direct enterprise-to-enterprise co-operation and - eventually - the establishment of multinational production enterprises.

It is hoped that the present workshop, undertaken by UNIDO in co-operation with the Thai Institute for Scientific and Technological Research, will contribute to overcome existing constraints in developing countries by promoting the use of advantages and capabilities offered by other developing countries.