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INDUSTRIAL AND TECHNICAL CO-OPERATION  
AMONG DEVELOPING COUNTRIES.

Report of the Round-Table Ministerial Meeting held  
at New Delhi, India, 4-8 January 1977

Prepared by the secretariat of UNIDO

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## CONTENTS

<u>Chapter</u>	<u>Page</u>
INTRODUCTION .....	3
RECOMMENDATIONS .....	4
I. BASIC CONSIDERATIONS .....	5
II. AREAS OF CO-OPERATION .....	7
III. MECHANISM OF CO-OPERATION .....	12
IV. FOLLOW-UP .....	13

### Annexes

I. List of participants .....	15
II. Papers presented at the Meeting .....	20
III. Opening address of Dr. Abd-el Rahman Khane .....	21
IV. Opening address of Minister of Industry Shri T.A. Pai.....	26

## INTRODUCTION

The Round-Table Ministerial Meeting on Industrial and Technological Co-operation among Developing Countries, held at New Delhi from 4-8 January 1977, was organized by the United Nations Industrial Development Organization (UNIDO) in co-operation with the Government of India. Eighteen countries sent delegations to the Meeting, of which 16 were led by ministers.

The main objective of the Meeting was to explore specific avenues of co-operation among developing countries with a view to achieving the industrial goals set forth in the Lima Declaration and Plan of Action.

Background papers were circulated by the Government of India and UNIDO. The papers prepared by the Indian Government briefly reviewed the Indian experience in planning and implementing industrial development programmes and establishing the requisite infrastructural and technological capacity over the last three decades. The papers in particular concerned the engineering industries and small-scale and rural industries. The paper prepared by UNIDO described the efforts of UNIDO to promote industrial co-operation among developing countries, with emphasis on its current programmes of technological co-operation among developing countries, harmonization of policies, co-operation in industrial technology, co-operation in the productive sector and training.

Visits to both large and small industrial establishments and to industrial research institutions were organized by the Government of India in Bangalore and New Delhi.

### RECOMMENDATIONS

1. An information system should be set up that would concentrate on the kinds of information that could broaden the possibilities of co-operation among the developing countries, i.e. information on: (a) the availability of appropriate technologies; (b) the terms of licence or collaboration agreements concluded by developing countries; and (c) the availability of skilled manpower and expertise in various countries.
2. In consultation with Governments, UNIDO should explore the possibility of expanding and strengthening already established R and D institutions in developing countries to make them "centres of excellence" in specific technical fields and prepare a detailed study of the subject.
3. UNIDO should review possible constraints, both internal and external, that may affect the setting up of joint industrial projects and market-sharing arrangements.
4. UNIDO should initiate studies to identify ways of co-operation in the following sectors of industry:
  - Chemicals
  - Engineering
  - Electronics
  - Energy
  - Fertilizers and agro-chemicals
  - Pharmaceuticals
5. Under the auspices of UNIDO, concrete programmes through which the relatively more developed of the developing countries could assist the least developed countries should be formulated and implemented.
6. UNIDO should convene round-table ministerial meetings periodically, to be held in developing countries in different regions in co-operation with the host country.
7. UNIDO should outline projects of co-operation and submit them for consideration to the developing countries. A committee of experts should work out guidelines for collective action.

## I. BASIC CONSIDERATIONS

The Meeting took special note of the industrial production target for developing countries established by the Second General Conference of UNIDO, held at Lima in 1975, namely, that at least 25 per cent of global industrial production should originate from developing countries by the year 2000. While confidence was expressed that this target could be achieved, it was considered that a comprehensive development programme and a series of concerted measures needed to be undertaken, both to realize this target and to ensure that the existing gap between the more developed and less developed countries should be reduced to the minimum as rapidly as possible. It was noted in this context that the Lima Declaration and Plan of Action had emphasized the importance of closer co-operation among developing countries as a means of achieving the production target. It was recognized that, in an increasingly complex and interdependent economic order, no group of countries could afford to cut itself off from the mainstream of technological progress; however, developing countries could not continue to be the recipients of production techniques and processes that were unsuitable or obsolescent and that were frequently supplied at inflated prices and often under unduly harsh and restrictive conditions.

Some of the participants stressed that knowledge and appreciation of the circumstances, aspirations and capabilities of developing countries for achieving adequate industrial and technological progress was lacking in developed countries.

It was recognized that industrialization was essential for achieving balanced economic growth internationally. Co-operation between developing countries, a prerequisite for such growth, was not a step towards isolation.

In referring to the principle of co-operation among developing countries, the Ministers stressed that the implementation of the New International Economic Order was likely to be greatly prolonged if developing countries were to depend only on the goodwill and initiative of developed countries. It was essential that developing countries took the initiative towards evolving new forms of co-operation and in strengthening existing structures in their countries; furthermore, the developing countries would have increasingly to depend on each other.

In discussing the basic issues affecting co-operation among developing countries, the Ministers recognized the diversity of problems arising from the

wide variety of conditions in developing countries. Accordingly, no tailor-made solutions could be offered, since each country had to take into account its socio-economic situation.

It was felt that the Meeting had demonstrated that the developing countries had the necessary political will to identify areas of co-operation and to evolve a concrete programme of action in this field. To ensure appropriate industrial and technological growth in developing countries, the concept of self-reliance was of particular importance in evolving strategies of growth.

One of the first steps was to pool the experience and resources of the developing countries and actively to promote consultations among themselves with the aim of evolving a common strategy for industrial and technological development. The Ministers agreed that there was an urgent need for working out a concrete programme of action and UNIDO was called on to assist in this endeavour.

It was emphasized that co-operation among developing countries should take a comprehensive form and should reflect a spirit of partnership rather than being confined merely to commercial relationships between different enterprises in these countries. Such co-operation would have to be qualitatively different in concept and pattern and should be concerned not only with the basic infrastructural production and technological gaps in the economy of various developing countries, but also with the general industrial growth of these countries, and particularly of the industrially least developed. Arrangements to co-operate should not be construed as directed against other groups, but principally as an essential and effective instrument for meeting the industrial requirements of these countries. The present Meeting was considered to be highly significant, as it afforded an opportunity to exchange ideas on the scope and possibilities of such co-operation at the ministerial level.

Several of the participants pointed out that another objective of the ministerial meeting was to promote contacts and understanding among those who directed the course of industrial growth in developing countries, emphasizing that the possibilities of co-operation were bound to increase if personal contacts were maintained and developed. The Ministers felt that meetings of this kind should be organized at regular intervals and that personal contacts between decision makers were of great value. Some participants suggested that ministerial meetings be conducted on a yearly or biannual basis, preceded by meetings of experts so that the issues to be considered could be clearly

identified. Some Ministers felt that UNIDO should consult the countries participating in such meetings in advance to identify concrete projects that could be brought up at the meetings.

One specific proposal in this connection was to hold a special session concerning industrial and technological co-operation in meeting the needs of one developing country. Such sessions should be jointly prepared by UNIDO and the developing country selected, with a view to identifying and preparing a possible co-operation programme involving other developing countries that would then be invited to take part in the session.

## II. AREAS OF CO-OPERATION

The Meeting identified the following specific areas of industrial co-operation that could be pursued not only by the developing countries represented at the Meeting but also by other developing countries:

(a) Co-operation in the field of industrial technology with a view to improving the identification and use of technologies already available in the developing countries, including technical know-how and skills, machinery and equipment, design, consulting and construction capabilities;

(b) Collaboration in respect of the proposal for a technology bank, which would also include consideration of joint purchase of technology and examination of contracts and agreements already concluded, to provide guidance to others so as to avoid the mistakes and problems relating to the experience of particular technologies in any of these countries;

(c) Promotion of collective action for negotiating and bargaining for more equitable economic relationships and for acquisition of technology;

(d) Development of concrete programmes for using engineering and consultancy capabilities available in the developing countries;

(e) Co-ordination of industrial training programmes to augment the skills considered basic to industrial development programmes;

(f) Co-operation in the establishment and strengthening of national and regional institutions concerned with industrial and technological development;

(g) Co-operation in applied research and development in specific sectors, drawing upon machinery and capabilities already available in the developing countries and concentrating specifically on engineering industries, electronics, fertilizers and agro-chemicals, pharmaceuticals, chemical industries and energy.

The need for standardization of specifications for capital, intermediate and consumer goods to be adopted in a subregion or region was recognized, and it was agreed that this matter should be thoroughly studied with a view to enlarging trade opportunities among developing countries.

The importance and utility of expanding and improving established technical institutions in the developing countries to ensure that these units develop



into advanced centres of research and development was recognized. To achieve this objective for the benefit of all developing countries, it was agreed that the possibility of co-operative funding under the auspices of UNIDO should be explored.

The obligation of the relatively more developed among the developing countries to assist the least developed countries was recognized.

#### Industrial and technological information

Recognizing that no country could attain a stage of complete self-reliance in the technological field, several Ministers suggested the need for a clearing-house for technological information, to be established under the auspices of UNIDO for the benefit of all developing countries.

In reviewing the experience of participating countries in the industrial and technological field, several Ministers underlined the urgent need for information that could assist in the proper identification and selection of industries as well as in their effective management and operation. Several participants stressed the importance of incorporating, within the proposed UNIDO clearing-house, information on alternative financial sources and the opportunities offered by various banking and investment programmes.

The Meeting was informed of the current endeavours of UNIDO to establish an industrial and technological information bank in pursuance of resolution 3507 (XXX) of the General Assembly.

An industrial and technological clearing-house was viewed as an essential element of co-operation among developing countries, since it presupposed that very close links were to be established between the developing countries themselves and that such close links would include the sharing of information on specific projects, technology agreements and the development of local skills. It was furthermore emphasized that an exchange of information between developing countries was a prerequisite for promoting the industrial and technological co-operation much sought by third world countries as a viable mechanism to improve economic relations among all countries.

Co-ordination in acquisition of technology

The Ministers expressed their concern over existing practices governing the acquisition of technology from external sources and suggested that UNIDO explore possibilities of joint action in the purchase and use of technology from abroad.

It was felt that the policies and principles relating to acquisition and use of imported technology by developing countries required further study. On the one hand, it was a matter of considerable concern that rapid technological progress achieved in industrialized countries was widening the technological gap between such countries and developing economies. On the other, the requirements of developing countries necessitated greater emphasis on technologies and processes suitable for conditions in these countries. While there was undoubted need for rapid and increased flow of foreign technology into critical sectors of production, it was necessary for developing economies to exercise caution regarding the terms and methods under which modern production techniques were being imported into their countries, since such technologies often proved unsuitable for achieving national goals.

Several delegations expressed the view that UNIDO could devote increasing attention to evolving new machinery that could promote the collective action of the developing countries to acquire technology; they recognized that this machinery could become a significant instrument in the transfer of technology and would strengthen co-operation among developing countries.

Examples of joint action included the following areas:

Exchange of information on technology agreements already concluded by some developing countries for the benefit of others

Collection and analysis of these contracts by UNIDO

Exchange of experience concerning specific industrial projects and on the use of particular technologies

Dissemination of information for collective action in negotiating and bargaining to acquire technology on more equitable terms and to achieve more equitable economic relationships in general

Engineering and consultancy capabilities

It was felt that one of the areas in which developing countries might cooperate significantly in the near future was in using engineering and consultancy capabilities already existing in the developing countries. In this connection,

several participants noted that India had assisted in planning and implementing projects in their countries. It was recognized that engineering and consultancy capabilities in the developing countries would have to be used to a higher degree. Consulting organizations in developing countries could assist in accelerating technological development and transfers from local R and D institutions to industry by identifying proper areas of research, by ensuring the commercial viability offered by alternative technologies and by providing comprehensive engineering services required at the national level.

The promotion of engineering and consulting services in a given country was a precondition for more active international co-operation in this field; at the same time, engineering and consulting services available in some developing countries should be considered for implementing projects in other developing countries.

UNIDO was requested to prepare proposals for using engineering services already available in developing countries and for establishing such facilities in countries in which they were lacking, with emphasis given to the areas outlined below.

#### Product and process design

It was felt that product and process design for indigenous production required special attention.

#### Consulting and engineering services

It was stressed that particular attention needed to be given to areas in which local consulting and engineering services could be used with advantage. It was necessary to identify domestic sources and the specific problems that indigenous consulting engineering services faced.

Apart from product designs and processes of manufacture, technological know-how, including feasibility studies, project or plant engineering, civil engineering and machinery installation, training of personnel, management techniques, should also be a part of the technology transferred to developing countries. Technological processes had to be suitable and the necessary technological infrastructure had to be created for their effective absorption and subsequent adaptation and development. Consulting and engineering services could play a very useful role both in identifying and solving infrastructural problems that had to be overcome in developing countries if technology acquired from abroad was to be used effectively to contribute to socio-economic growth in recipient countries.

Domestic technological services and capital goods industry

The interrelationship between domestic technological and engineering services and the use of locally produced equipment was considered important. It was the experience of several developing countries that imports of machinery, equipment and industrial hardware were closely related to the purchase of technology and consulting and engineering services from external sources, even to the extent that considerable domestic capacity for manufacturing similar machinery and equipment remained idle. This situation was often the result of the development of technology and basic engineering around machine-building capacity in industrialized countries, so that imports of technology and technical services were often linked with capital-goods imports, and adjustments in technology and engineering were largely confined to modifications necessary because of differences in raw materials and basic inputs. The familiarity of foreign consulting engineers with the equipment produced in developed countries also encouraged the purchase of such plant and machinery. It was considered essential that technology in institutions in developing countries, including consulting and engineering organizations, ensure that basic engineering and technology was related not only to domestic raw materials and inputs but also to domestic machine-building capability as far as possible.

National and regional institutions

Major attention was given to the need for strengthening institutions to accelerate industrial and technological development in accordance with industrial development plans and objectives. Particular emphasis was given to the need to provide institutional support for the development of small-scale industries, and it was considered that in this specific area much greater co-operation between developing countries was possible and necessary. Similarly, on-going programmes relating to the establishment and development of industrial estates were referred to as an area of significant co-operation among third world countries.

The Ministers were of the view that co-operation in strengthening of research and development institutions in various industrial sectors was greatly needed. Although efforts had been made to promote closer linkage between R and D institutions in developing countries, it was considered that new forms of co-operation in this area should be explored.

It was recognized that co-operation in the institutional sphere required careful planning and study of national and regional conditions.

For certain countries, the possibility of entering into joint industrial projects and market-sharing arrangements was of great interest and should be explored. Such an approach should be actively considered for certain fields and production sectors, even if short-term national plans and targets had to be adjusted. UNIDO was requested to review possible difficulties in setting up joint industrial projects and market-sharing arrangements. Joint ventures entered into by enterprises in developing countries were considered a viable means of stimulating industry and trade, in particular at the subregional level.

#### Co-operation in priority industry sectors

The Ministers emphasized the importance of concentrating on arrangements of co-operation in specific industries in developing countries. It was suggested that the costs of sectoral programmes could be shared between the beneficiary countries and UNIDO.

### III. MECHANISM OF CO-OPERATION

To translate the concept of industrial co-operation among developing countries into reality, it was considered that a mechanism for ensuring such co-operation should be developed. In this connection, the existing systems of bilateral and multilateral co-operation were discussed. It was noted that several bilateral agreements of co-operation between developing countries were being carried out satisfactorily, and joint commissions had been established in several cases to plan and review the progress of such co-operation. These commissions should not only be continued but expanded, so as to ensure increased trade and economic relations between the countries concerned and to develop projects of mutual benefit. It was also considered that information on such arrangements could be collected by UNIDO and made available to all interested developing countries.

The importance of clearing-house arrangements was emphasized. It was noted that information on the technological capacities of the developing countries was often lacking. Such information needed to be collected and compiled not only on technologies in these countries, but on training facilities, availability of qualified personnel, existence of consulting organizations and facilities for research and development that could be utilized for joint development programmes. UNIDO was requested to study this matter and initiate action so that relevant information could be collected and disseminated.

With regard to multilateral co-operation, various possibilities were considered. First, it was agreed that round-table ministerial meetings like the present Meeting should be organized periodically. The ministerial meetings should retain their informality and be held in developing countries in different regions. Meetings of experts could be held a few days earlier to review the available documentation and to provide the necessary background materials and details.

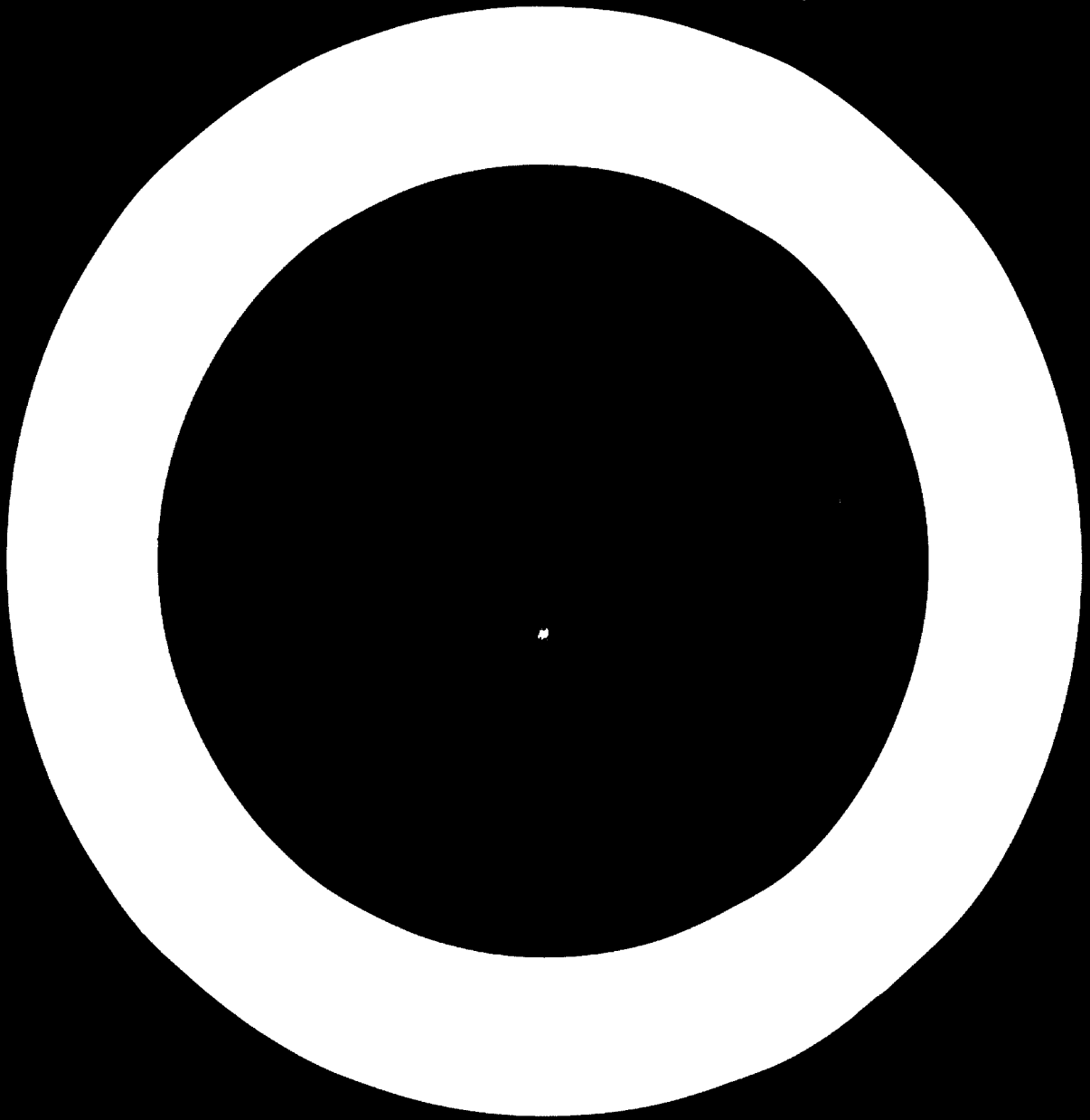
Secondly, it was considered that triangular meetings between the assisting and assisted countries and UNIDO could be organized regularly to develop programmes of co-operation between two countries with UNIDO as a third partner. The programmes of co-operation would finally be considered by the Governments themselves for implementation.

Thirdly, the possibility of holding consultation meetings under UNIDO sponsorship for the purpose of developing co-operation between one particular country and several more advanced developing countries was discussed. It was noted that it might be difficult for many developing countries to organize meetings designed primarily for the benefit of one country. UNIDO could examine whether such meetings could be organized for a group of three or four such countries on the one hand and other interested developing countries on the other.

#### IV. FOLLOW-UP

It was stressed that allocation of adequate resources to establish programmes in the areas mentioned above was essential. In this connection, it was suggested that some of the participating countries could pledge, even on a token basis, resources to the UNIDO General Trust Fund.

UNIDO was requested to continue not only its present programme of industrial co-operation among developing countries but also to respond effectively to the basic recommendations arising out of this Meeting. It was considered that there was essential need to strengthen UNIDO to serve as a substantive focal point of action in promoting industrial technological co-operation among developing countries. The Meeting noted with appreciation the offer, subject to confirmation of the Governments concerned, of the representatives of Brazil and Egypt to host the forthcoming round-table ministerial meeting in their countries.



Annex I

LIST OF PARTICIPANTS

Country participants

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Annex II

PAPERS PRESENTED AT THE MEETING

Government of India, Ministry of Industry

India's experience in development of infrastructure for industry

India's experience in engineering industry

India's experience in small-scale and rural industries

UNIDO

Industrial and technological co-operation among developing countries (UNIDO/IOD 60)

Annex III

OPENING ADDRESS OF DR. ABD-EL RAHMAN KHANE  
Executive Director of the  
United Nations Industrial Development Organization

It is a great privilege for me to attend this important Meeting and to address this distinguished audience on a most important subject, that of industrial and technological co-operation among developing countries. On behalf of UNIDO and myself, I wish to extend to you a warm welcome.

May I, on my behalf and also yours, extend our grateful thanks to Minister Pai and through him to the Government and the people of India for the warm welcome, gracious hospitality and efficient arrangements in organizing this Meeting. The idea arose out of the Ministerial Meeting held at Sofia in November 1975. I also had the benefit of several discussions with Minister Pai on the problems of industrial development faced by the developing countries and the immediate need for their collective, self-reliant action as the most effective but largely unused instrument for achieving the goal of industrial development.

May I add that I am happy to be in New Delhi again enjoying the company of Indian friends and looking forward to useful and stimulating discussions in a traditionally hospitable atmosphere.

I need hardly state the obvious - namely, the growing dissatisfaction of the developing countries with the unacceptable and inequitable framework of international economic relations that has been made to persist and act against the interests of the third world. This was formally and unanimously echoed in the Sixth Special Session of the General Assembly in 1974, when a historic resolution on the Declaration and Plan of Action on the Establishment of a New International Economic Order was passed. This was soon followed by the adoption, in 1975, of the Lima Declaration and Plan of Action on Industrial Development and Co-operation. You will recall that the Second General Conference of UNIDO held at Lima was deeply concerned by the stagnant 7 per cent share of world industrial production originating in developing countries and set the target of at least 25 per cent to be achieved by the year 2000. The Lima Declaration

recommended a set of measures to achieve this goal and assigned a major role to co-operation among developing countries as an effective instrument, including the organization by UNIDO of consultations for the redeployment of productive capacities from the developed to the developing countries and the creation of additional capacity in the developing countries themselves. Many, since the Lima Declaration, have wondered whether the target of 25 per cent is unrealistic. The answer is that if the third world countries have to cope with their enormous problems of population growth and maintain manageable living standards, the 25 per cent target should be considered the minimum. I am also fully convinced that with adequate policies for the better use of their resources, both natural and human, of policies and action to obtain better prices for their products and with a concrete programme of action to promote co-operation among themselves, the developing countries stand a good chance of attaining and perhaps surpassing the target.

The last point I just mentioned, namely, a concrete programme of action to promote co-operation among developing countries is the subject of our Round-Table Meeting today. Much has been said about co-operation among developing countries, and there is already a consensus among countries that every effort should be put forth to make it a reality. The resolutions of the non-aligned countries, both at Algiers and Colombo, that of the General Assembly in calling for the establishment of a New International Economic Order, the Lima Declaration and Plan of Action, and more recently UNCTAD IV and the Mexico Conference, all point to this fact.

However, it is not so easy as one thinks. Moreover, if I can put it clearly, we are nowhere near forging a concrete programme of action, as I mentioned earlier. True, there are initiatives, mostly of an ad hoc nature. This is not enough and time is pressing on us to deal with this subject more systematically.

While there is consensus on the need for co-operation among developing countries, a question may be asked: why has it not massively taken place, if it is so basic to our common struggle for betterment of our societies?

Is it because the present pattern of co-operation, namely, north-south co-operation, is so firmly rooted in our system that it is found too difficult to reorient our policies?

Is it the feeling on our part that all know-how flows only from a few developed countries?

Is it the feeling that the best in terms of goods and services, technology and finance can be obtained only from developed countries?

Is it the feeling that imitation leads to quick and better results and therefore, we should borrow experience from the developed countries only?

Indeed, the answers to these questions are both affirmative and negative, and the reality is that with the changing world the old beliefs and patterns are crumbling. Several developing countries have acquired the basic industrial know-how and are now in a position to share that experience with other countries in a spirit of partnership and mutual benefit. It must be made clear that if these co-operative endeavours are to succeed, they should be truly based on consideration for the real requirements of the less developed partners, particularly the least developed among developing countries. It is in this context that the Lima Declaration clearly defined the nature of co-operation to which all countries have agreed.

To make co-operation among developing countries move forward from the mere concept to reality, it is necessary to identify broad areas of co-operation as well as appropriate mechanisms for their implementation. The identification of programmes and mechanisms should be based on a preconceived strategy aimed at providing comprehensive coherent and integrated action in this field. This, inter alia, should in my judgement be governed by the following objectives:

Harmonization of policies and action to achieve at least the 25 per cent target set at Lima in relation to the redeployment of productive capacities from developed to developing countries and the creation of additional capacities;

Co-operation in the field of industrial technology with a view to improving the identification and use of technologies already available in the developing countries, including technical know-how and skills, machinery and equipment, design, consulting and construction capabilities;

The creation of co-operative programmes concerning applied research and development activities in specific sectors, drawing heavily upon machinery and capabilities already available in the developing countries;

The development of concrete plans for the use of engineering and consultancy capabilities available within the developing countries;



Establishment and strengthening of the institutional framework at the national and regional levels to sustain industrial and technological development and to promote joint investment projects;

To promote collective action for negotiating and bargaining for more equitable economic relationships and for technology acquisition.

To achieve the objectives of co-operation I have just outlined, the appropriate support from all Governments concerned is necessary, and adequate mechanisms for implementation must be introduced. Adequate information and experience, which is already available within the countries, must be properly utilized. UNIDO could make its own contribution to such a programme and could provide analytical and direct assistance as needed.

The documentation available to this Meeting, which we wanted to be as succinct as possible, provides an account of co-operation among developing countries from two angles.

In regard to the first, the documentation prepared by the Government of India describes India's experience in two specific areas, namely, the engineering industry and small-scale and rural industry. It also explains the institutional framework to sustain industrial production and promote technological development, suggesting potential areas of co-operation among developing countries.

In my opinion, what is significant regarding the Indian experience is that its main strength lies in its human resources. I am referring particularly to the technical manpower India has developed, both in quality and quantity. It ranks high among the first few countries in the world as regards the total trained manpower, including scientists, technologists and engineers. Secondly, India has developed not only an impressive industrial capacity, but also a wide variety of institutions to support the industrial base in the fields of research and development, consultancy and advisory services and financial institutions. All these provide valuable points of reference and potential for co-operation worth considering in a concrete way by the Ministerial Round-Table.

On the other hand, the UNIDO document provides an account of its efforts to promote co-operation among developing countries. Reference is made in the document to programmes of technical co-operation among developing countries, known as TCDC, harmonization of policies, co-operation in the field of industrial technology, co-operation in the productive sector, training etc.

While our Meeting will benefit from both the documentation and visits to factories and institutions of this country, it should also, in my view, arrive at concrete results. During the next few days or at a later stage it may be possible to have bilateral discussions and to lay the basis of practical co-operation on specific projects.

In closing, I should like to suggest for your kind consideration another thought, which, I believe, will not only sustain our interest in the subject, but also provide a mechanism for continuous promotion of co-operation among developing countries. It seems to me that this kind of small and informal round-table ministerial meeting, especially devoted to the subject of industrial and technological co-operation, should be held periodically. Some countries could perhaps meet annually in one of the developing countries to keep under review the progress made in this area and to make recommendations for future action. UNIDO, together with the host country, could jointly organize such meetings, based on the New Delhi model, and also provide secretariat assistance in preparing and servicing such meetings. These meetings could perhaps consider specific plans for action in key areas such as engineering, capital goods and pharmaceuticals. An approach of this kind is not meant to substitute for existing international mechanisms, but to supplement them so as to make the entire programme operational and at the same time provide a focal point through UNIDO for action.

Annex IV

OPENING ADDRESS OF MINISTER OF INDUSTRY, SHRI T.A. PAI  
Government of India

It gives me great pleasure to welcome you to this Round-Table Ministerial Meeting on Industrial and Technological Co-operation among Developing Countries, organized jointly by UNIDO and the Government of India. The UNIDO paper describes the meeting as historic. It is historic in terms of the task of forging solidarity among the developing countries with a view to ameliorating the economic backwardness of their peoples. The meeting is unique in that, while countries from different geographical regions, divergent socio-economic systems and varying levels of technological growth are represented here, yet transcending this diversity, there is unity in our objectives and there is even a common central core in our approach. It is to explore this community of interest that we have assembled here.

To achieve our objectives, our discussions will be not at the plane of ideology, slogans or platitudes; instead, we need to have a practical and operational approach. We shall, therefore, explore specific avenues of co-operation among ourselves in industrial and technological fields. As the first ministerial-level assembly to evolve precise ideas and operational programmes of co-operation among developing countries, this meeting is historic. We are extremely happy to be partners in this unique experiment and we look forward to its outcome with hope.

The last few decades have witnessed fundamental changes in the international economic and political scene. In just 30 years, about 100 new countries have joined the international community as sovereign States. While the last vestiges of colonialism are nearing their end, inequalities and unjust distribution of wealth between different countries still continue. The masses of the vast majority of countries continue to carry the heavy burden of poverty, suffering from disease, malnutrition, ignorance and lack of shelter. Vast sections of the human population have yet to taste the fruits of modern industrial technology. The political independence of the newly emerged countries has not been accompanied by their deliverance from the traditionally structured links of the past. The new international economic order, involving new relationships and forms of co-operation among countries, has yet to take shape.

We must evolve new patterns of sharing our technological skills and resources as a means of gaining individual and collective strength, and of finally breaking away from clinging colonial legacies and values.

Industrialization is a cherished fundamental goal of the developing countries. Indeed, the prevailing state of underdevelopment, as epitomized by low incomes and the ailments that low incomes bring in their wake, may be attributed to the lack of input of modern technology, leading to the low level of productivity in these countries. This is one reason why these countries, though rich in natural and human resources, are lacking in industrial growth. That most of the economically advanced countries of the contemporary world have reached their high standards of living through successful thrusts of industrialization is an accepted fact, and a pointer to the path that the developing countries need to travel.

While it is essential to transform and modernize traditional agriculture, which predominates in the economies of most developing countries, it is well-known that the growth of productivity of labour is much faster in industry, as a result of the growth of technology, than in agriculture. Hence, more rapid industrialization would lead to a more rapid rate of economic growth than would otherwise be possible for developing countries generally. In countries with an excess of labour on the farm, or in other traditional occupations, a more rapid rate of expansion in industrial production is an inescapable necessity for relieving unemployment and underemployment, which is really an aspect of low productivity employment. In countries more fortunately placed, industrialization is a means of achieving a more rapid rate of economic growth and of diversifying and improving the quality of life in the economy. The growth of industries may be expected to increase the supply of both essential goods that meet the basic needs of the people and of producer goods that enlarge and strengthen the productive base of the economy, providing for further expansion of employment, output and productivity. Indeed, even faster agricultural growth today rests on industrial inputs. And once the basic human need for food, clothing, shelter and sanitation is satisfied, there opens up the possibility of a better quality of life for the people through increasingly diversified industrial products and equipment. Only through industrialization can we accelerate the tempo of economic and social development.

The drive towards industrialization is, of course, not a new phenomenon in the developing countries. There are some developing countries, and India is one of them, which have had a long history of industrialization. But such economic development as occurred during the colonial period was restricted to primary production for export and to a few rudimentary consumer goods industries. The traditional colonial policies of the metropolitan powers worked in their interest by assigning to the colonies the role of suppliers of raw materials and purchasers of finished goods. The result was an enclave economy that left the large part of the population untouched by an industrial culture and by the benefits of growing skills and of productivity.

The efforts made to secure effective transfer of modern technology and production capability from the rich to the developing countries have so far succeeded only to a limited extent. This is not surprising, notwithstanding other financial assistance provided by the developed countries to the poorer countries. The building of a few factories or production facilities does not lead to general economic development of a country. The raising of the level of skills, the introduction of a new tempo, and the raising of the productivity of labour all round - in short, the introduction of an industrial culture - are the goals of a well-formulated programme of industrialization. Isolated pockets of industrial excellence have existed even in colonial economies, but they have not had any spread effect on the average level of labour productivity outside these "enclaves".

The reasons for the growing gap between the industrialized and the developing countries, therefore, are not far to seek. For one thing, the colonial powers had no interest in investing human resources in the subject countries. As one country after another gained political independence, the business community in the erstwhile metropolitan countries was interested in selling to the newly independent countries, first processed consumer goods and later capital goods and equipment designed and manufactured to suit the needs of the developed countries themselves. The world has witnessed high-pressure salesmanship of a variety of wares over the past 30 years, be it by way of consumer goods or equipment or other hardware or even technology. What has been missed is that a greater part will be rejected by the body unless it is absorbed and assimilated in the bloodstream and nervous system of the parent body; and once it is assimilated, the grafted part only enriches the body but is itself enriched by it.

So with technology transfer, and the development of technology and technical skills and expertise among the developing countries. Development, like peace, is indivisible. So far, the developed countries have grown through mutual trade and interchange and technology transfer; but the developing countries have generally been left outside this fraternity, and have provided only the raw materials to or been a residual market for the developed countries. It is for the developing countries now to stand together and to assist each other, not only by establishing increased trade contacts among themselves but also by sharing and assisting in the growth of technology and of human skills to make use of more and more modern technology.

It is in this context that co-operation between developing countries is significant not only in the context of trade exchanges, but also in the context of the sharing of productive equipment suited to the environment of these countries, of the transfer of technology, and of co-operation in the build-up of technical skills through training and through the sharing of knowledge. Also, what is required is not a stereotyped technology but a technological mix, which would combine the advantages of advanced and simple traditional technologies of both labour-intensive and capital-intensive technologies, as may be required. The appropriate technological mix will vary from one country to another according to its resource endowments, the basic needs of its people, and the level of its development. But to go further back, there is need to share in the very process of education and research, in the build-up of the human material, and in the training of skilled manpower, so that the benefits of industrialization can really permeate the very fibre of society in all the developing countries.

Even among developing countries, there are some that have so far been denied even the basic wherewithal of industrialization. It is the duty and the responsibility, even among the developing countries, to assist the least developed countries to come out of the shackles of centuries of domination and neglect, and to help them to the path of industrial progress. The most important need in this context is the build-up of technical skills of the local population, the transfer of technology and its assimilation, and assistance in setting up productive capacity that will help in the dissemination of skills rather than stand out as an island of industrial excellence, an enclave type of production facility, without touching the nerve of the people's welfare in terms of the spread effect of the productive facility created, or even in the matter of the type of product produced.

Co-operation among developing countries is no more a vague idea; it has already been given a specific content by the resolutions passed by the General Assembly, UNCTAD and other United Nations bodies, more particularly by the Second General Conference of UNIDO held at Lima, at which the definite objective of raising the share of the developing countries in the total world industrial production to 25 per cent by the year 2000 was unanimously accepted. The Lima Conference went on to prescribe the general policy direction and a plan of action for the achievement of the target. Subsequently, the Mexico Conference on Economic Co-operation among Developing Countries, held in September 1976, has outlined guidelines and has requested the relevant international agencies to initiate action. This Round-Table Ministerial Meeting being held in New Delhi with the help and co-operation of UNIDO is a further step forward and will be concerned with elaborating programmes in operational terms and with devising mechanisms to promote co-operation and solidarity among the developing countries. To provide focus to the discussions, we have submitted three papers narrating India's experience in the development of infrastructure for industry, in the engineering industry and in small-scale and rural industries. We feel that the experience of India will be of some interest to the other developing countries. The papers are brief, but they indicate the steps the Government has taken in these three major fields, the difficulties encountered from time to time and the level of growth and maturity that the country has been able to achieve in three decades of planned industrial growth. We would like to share with all developing countries our experience, in the hope that some of the travail of our experiments can be avoided. The concluding parts of the papers also indicate some specific avenues of co-operation between India and the other developing countries.

The issues raised in these papers may be of some relevance to all developing countries, and I hope that the discussion of those issues will yield conclusions of both general and specific application, and will help the developing countries not only to harmonize their policies and action but also to undertake specific steps for co-operation in the fields of industrial technology, applied research, horizontal transfer of technology, and greater interchange of goods and services.

India has a long way to go on its path of industrial development; but we feel that the country has acquired a measure of maturity. A stage has been reached where infrastructure and institutional framework have become a positive

source of strength for the sustained development of new industries and the smooth operation of the existing ones. Achievement has been particularly impressive in technical manpower development, consultancy and design services, standardization and quality control. The growth of the engineering industry has been such that the bulk of the plant and equipment required for new industries in India is manufactured in the country. Sizable quantities of engineering goods are exported, and numerous sophisticated projects have been executed abroad on a turnkey basis. Similarly, small-scale and rural industries have achieved an important place in the economic development of the country. Several interesting initiatives have been taken in evolving technologies appropriate for developing countries.

You will get a glimpse of India's industrial progress in these directions during your visit to some of our public-sector projects and ancillary units at Bangalore.

It is my hope that concrete proposals for co-operation among the countries present here will emerge from this Conference. In fact, it would give us tremendous satisfaction if we are able to finalize specific proposals for industrial and technological co-operation among us before we conclude the Conference. In this context, the Government of India would be willing to place at the disposal of the countries gathered here our experience and capabilities in an endeavour to finalize concrete proposals for co-operation to be suggested by this conference so that, backed by the political will represented here, these may be implemented immediately without further detailed examination and processing at different levels. I need hardly mention that the implementation will have to be under the auspices of UNIDO.

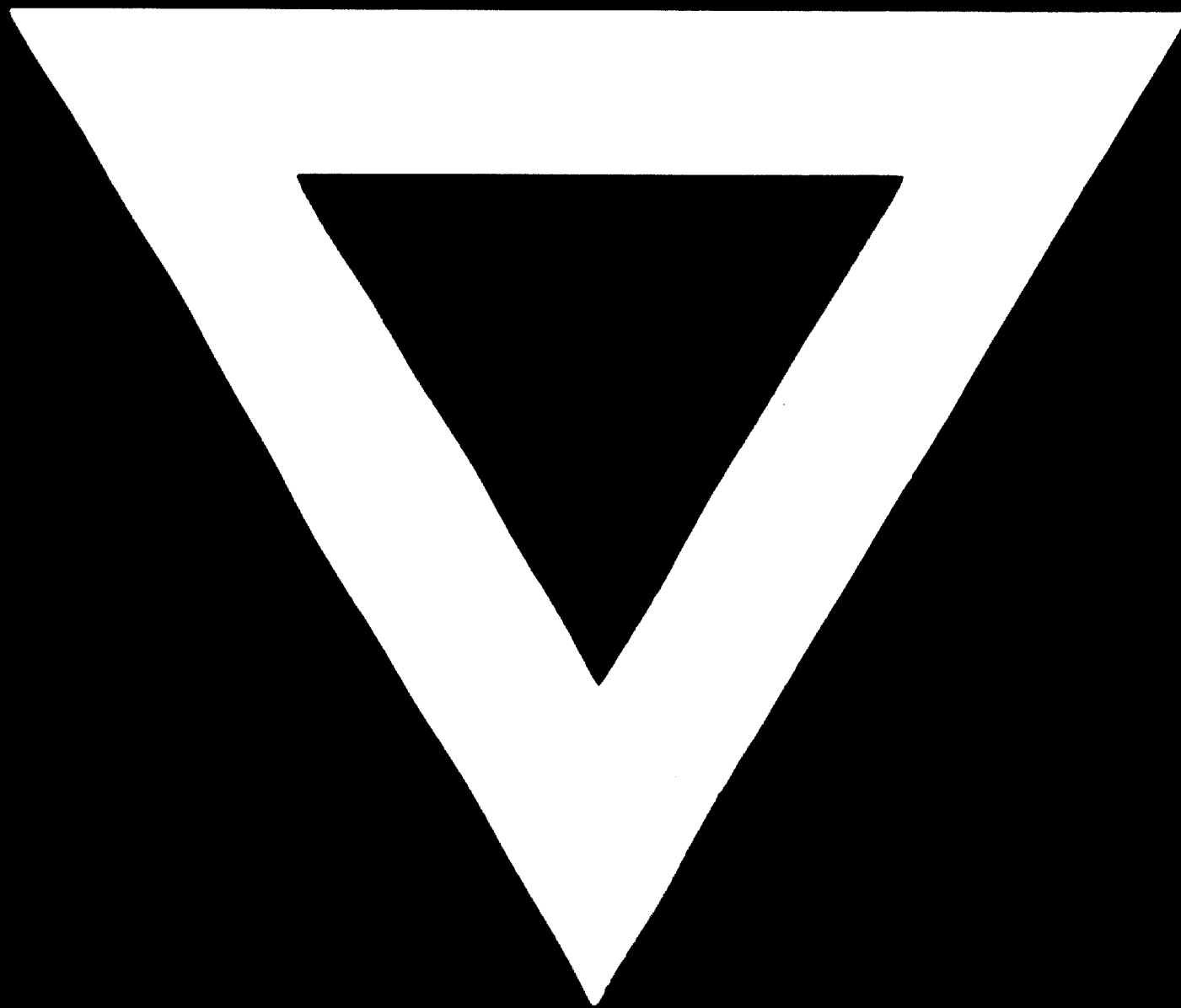
I would like to mention one specific point for your consideration. The exercise that we have started for discussions at the ministerial level to explore specific avenues of co-operation in industrialization cannot be concluded by discussions extending over three days. We should think of holding such discussions at regular intervals. The discussions should also have the necessary preparatory support by way of meetings of officials and of technical and research personnel and by way of studies and investigations. I hope that before concluding our Meeting, we shall be able to take a view on the modalities of continuing co-operation in these areas.



Before I conclude, I wish to take this opportunity to restate our commitment to UNIDO and give the assurance that India will be a partner in all its endeavours to promote the industrialization of the developing world. The task of UNIDO as enunciated in the Lima Declaration and Plan of Action is indeed stupendous. But, on the other hand, it also provides this organization opportunities on a historic scale, the like of which have never been available to an international organization. We do hope that under the dynamic leadership of Dr. Khan the organization will rise to the challenge and will make an effective contribution to the task of eradicating poverty.



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