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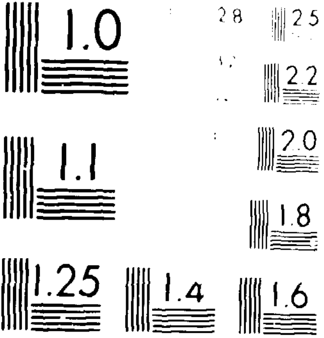
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MONITORING PROGRESS MADE IN ACCELERATING INDUSTRIALIZATION IN THE DEVELOPING COUNTRIES.

Third survey, 1981-1982

Eduardo White

(ID/B/295/Add.2)

V.83-51728

Explanatory notes

The following classification of economic groupings is used in the text in conformity with the classification adopted by the United Nations Statistical Office: "Developing countries" includes the Caribbean area, Central and South America, Africa (other than South Africa), the Asian Middle East (other than Israel) and East and South-east Asia (other than Japan). "Developed countries" includes North America (Canada and the United States of America), Europe (other than Eastern Europe), Australia, Israel, Japan, New Zealand and South Africa. "Centrally planned economies" includes Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania and the Union of Soviet Socialist Republics, but not Albania, China, the Democratic People's Republic of Korea, Mongolia and Viet Nam. For statistical convenience, the classification in some places in the text may differ from that given above.

For stylistic reasons certain other denominations of country groups are also used in the text. The terms "South", "third world" and their derivatives refer to all developing countries. The term "North" and its derivatives refer to the industrialized market economy countries, broadly synonymous with the OECD area. "Industrialized countries" refers to the developed market economy countries and the centrally planned economies in Europe. These definitions are not rigorous, however.

"Manufacturing" includes the industry groups listed in major division 3 of the International Standard Industrial Classification of all Economic Activities (ISIC), unless otherwise indicated.

Dates divided by a slash (1960/61) indicated a crop year or a financial year.

Dates divided by a hyphen (1960-1965) indicate the full period involved, including the beginning and end years.

References to dollars ($) are to United States dollars, unless otherwise stated.

Annual rates of growth or change refer to annual compound rates, unless otherwise specified.

The following abbrevations are used:*

ACP	African, Caribbean and Pacific States in association with EEC
ASEAN	Association of South-east Asian Nations
CACM	Central American Common Market
CARICOM	Caribbean Community
CEAO	West African Economic Community
CMEA	Council for Mutual Economic Assistance
DAC	Development Assistance Committee (OECD)
ECOWAS	Economic Community of West African States
EEC	European Economic Community
GDP	Gross domestic product
GNP	Gross national product
LAIA	Latin American Integration Association
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
OPEC	Organization for Petroleum Exporting Countries
SITC	Standard International Trade Classification
TCDC	Technical Co-operation among Developing Countries
UDEAC	Customs and Economic Union of Central Africa

*For additional abbreviations, see page 6.

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BACKGROUND

Following the adoption of the Lima Declaration and Plan of Action on Industrial Development and Co-operation[1/*] by the Second General Conference of the United Nations Industrial Development Organization (UNIDO), in March 1975, the Industrial Development Board of UNIDO, in paragraph 1 of resolution 45(IX), requested all Governments to take the "necessary measures and decisions required to implement effectively their undertakings in terms of the Lima Declaration and Plan of Action". In paragraph 3(c) of the same resolution the Board asked the Executive Director of UNIDO "to request periodically, from Governments and international organizations concerned, information on the action taken and the progress achieved towards implementing the Lima Declaration and Plan of Action". Two exercises were subsequently carried out to monitor the action taken and progress made in those terms, in 1976-1977 and 1978-1979, the results of which are contained in ID/B/182 and addenda and ID/238 respectively.[2/]

Following the adoption by the Third General Conference of UNIDO, in January and February 1980, of the New Delhi Declaration and Plan of Action on Industrialization of Developing Countries and International Co-operation for their Industrial Development,[3/] the Industrial Development Board of UNIDO, in paragraph 1 of resolution 52(XIV), invited all Governments to take "all possible appropriate measures to accelerate the industrialization of the developing countries". In paragraph 3(d) of the same resolution, the Board asked the Executive Director of UNIDO "to request periodically from Governments and concerned international organizations information on the action taken and progress achieved towards the acceleration of industrialization in the developing countries". Accordingly, a third monitoring exercise was carried out in 1981-1982.

This report analyses the information given and the views expressed by Governments and international organizations in their replies to questionnaires - one for the developed and another for the developing countries. Those questionnaires were designed on the basis of experience gained from the first two exercises, and of the views expressed by the Industrial Development Board and its Permanent Committee and by representatives of geographical groups at the Vienna International Centre. A summary of this report was presented to the seventeenth session of the Industrial Development Board held in April and May 1983 (ID/B/295.Add.2).

Table 1 shows the participation of Governments in the first, second and third monitoring exercises. Only 67 out of 157 Governments replied to the third one. Consequently, information is lacking on the role played by certain countries in some very important issues and on specific situations in other countries. An effort has been made, however, to complement the picture as much as possible with the contributions of 16 international organizations, listed below, and additional data available in UNIDO.

Economic Commission for Africa (ECA)
Economic Commission for Latin America (ECLA)
Economic Commission for Western Asia (ECWA)
Economic and Social Commission for Asia and the Pacific (ESCAP)
Food and Agriculture Organization of the United Nations (FAO)

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*For the notes, see page 106 below.

General Agreement on Tariffs and Trade (GATT)
International Labour Organisation (ILO)
International Monetary Fund (IMF)
United Nations Centre for Transnational Corporations
United Nations Conference on Trade and Development (UNCTAD)
United Nations Department of International Economic and Social Affairs (UN/DIESA)
United Nations Department of Technical Co-operation
United Nations Educational, Scientific and Cultural Organization (UNESCO)
World Bank
World Health Organization (WHO)
World Intellectual Property Organization (WIPO)

Table 1. Country participation in the first, second and third monitoring exercises: 1976-1977, 1978-1979 and 1981-1982

Country	Replies received for: First exercise a/ 1976-1977	Second exercise b/ 1978-1979	Third exercise c/ 1981-1982
Afghanistan		x	
Albania			
Algeria			
Angola			
Argentina	x		c/
Australia			
Austria	x	x	x
Bahamas	x		x
Bahrain			
Bangladesh		x	x
Barbados			
Belgium	x	x	x
Benin	x		x
Bhutan			
Bolivia		x	x
Botswana		x	
Brazil	x	x	x
Bulgaria		x	
Burma			
Burundi		x	x
Byelorussian SSR		x	
Canada		x	x
Cape Verde			
Central African Republic		x	
Chad	x		
Chile	x	x	x
China		x	x
Colombia		x	
Comoros			x
Congo			
Costa Rica			x
Cuba		x	
Cyprus	x	x	x
Czechoslovakia	x	x	x
Democratic Kampuchea			
Democratic Yemen			
Denmark		x	x
Djibouti			
Dominican Republic			
Lesotho	x	x	x
Liberia			
Libyan Arab Jamahiriya		x	
Liechtenstein			
Luxembourg			
Madagascar		x	x
Malawi		x	x
Malaysia		x	
Maldives		x	
Mali		x	
Malta	x	x	x
Mauritania		x	
Mauritius		x	x
Mexico	x	x	x
Monaco			
Mongolia	x	x	
Morocco		x	
Mozambique			
Nepal			
Netherlands		x	x
New Zealand	x	x	
Nicaragua			
Niger		x	x
Nigeria		x	x
Norway	x	x	x
Oman		x	x
Pakistan		x	x
Panama		x	x
Papua New Guinea		x	
Paraguay		x	
Peru	x	x	x
Philippines	x		
Poland	x		
Portugal			
Qatar			
Republic of Korea		x	x
Romania	x	x	x
Rwanda	x	x	x
Sao Tome and Principe			

Ecuador		x
Egypt		
El Salvador	x	x
Equatorial Guinea		
Ethiopia		x
Fiji		x
Finland	x	x
France	x	x
Gabon		
Gambia	x	x
German Democratic Republic	x	x
Germany, Federal Republic of	x	x
Ghana	x	x
Greece		d/
Grenada		
Guatemala	x	x
Guinea		
Guinea-Bissau		
Guyana	x	x
Haiti		
Honduras		x
Hungary	x	x
Iceland		x
India	x	x
Indonesia		x
Iran (Islamic Republic of)		
Iraq		x
Ireland	x	d/
Israel	x	d/
Italy		x
Ivory Coast	x	x
Jamaica		x
Japan	x	x
Jordan		x
Kenya	x	x
Kuwait		x
Lao People's Democratic Republic		
Lebanon		

Note: The number of replies received was

From developing countries
From developed countries
Total

a/ Replies received by 30 November 1977.
b/ Replies received by 30 June 1979.
c/ Replies received by 30 November 1982.
d/ Replies received after completion of
e/ Replies received after completion of
statistical tables.

	Saudi Arabia	x	x	
x	Senegal			
	Seychelles			
x	Sierra Leone		x	
	Singapore	x	x	x
x	Somalia		x	
	Spain		x	
x	Sri Lanka		x	x
	Sudan		x	x
	Suriname			
	Swaziland	x	x	
	Sweden	x	x	x
	Switzerland	x	x	x
x	Syrian Arab Republic		x	
	Thailand	x	x	x
x	Togo		x	x
	Trinidad and Tobago			
x				
	Tunisia	x	x	x
	Turkey		x	x
x	Uganda			
	Ukrainian SSR		x	
x	Union of Soviet	x		
x	Socialist			
	Republics			
x	United Arab		x	
x	Emirates			
	United Kingdom	x	x	x
	United Republic	x	x	x
x	of Cameroon			
x	United Republic		x	
	of Tanzania			
x	United States	x	x	
	Upper Volta			x
	Uruguay		x	x
	Venezuela		x	e/
	Viet Nam			
x	Yemen		x	
	Yugoslavia		x	x
	Zaire		x	x
	Zambia		d/	
	Zimbabwe			x

as follows:

1976-1977	1978-1979	1981-1982
30	72	50
18	25	17
48	97	67

report on the second monitoring exercise.
report on the third monitoring exercise, included however in the

SUMMARY AND CONCLUSIONS

This report is divided into two parts. Part one deals with current trends in the industrialization strategies of developing countries and the corresponding attitudes, positions and policies of the Governments of developed countries. Chapter I, after reviewing the present situation of industrial growth in developing countries and discussing the main problems arising therefrom, analyses the main objectives and targets of government strategies, and examines the crucial roles of the public sector and transnational corporations. Chapter II reviews the present policies of the Governments of developed countries on the process of structural adjustment in industry, redeployment to developing countries and promotion of industrial investment in the third world.

Part two of the report is an analysis of four of the main issues of the process of industrialization: technological development, financial resources, exports of manufactures and economic co-operation between developing countries.

For the first three issues, the different ways in which the policies of developing countries and developed countries affect the process of industrialization in the developing countries are discussed. Chapter III, on technology, examines the recent progress achieved in developing countries by human resources development, and technological innovation, transfer and information, and reviews the efforts of developed countries to provide technical assistance and promote the transfer of appropriate technology to developing countries. In chapter IV the role of finance mobilization and location in industry, through the domestic policies of the developing countries and private and public contributions from developed countries is analysed. Chapter V deals with the trade situation and policies, emphasizing the recent performance of industrial export promotion policies of developing countries and the evolution of the access of their manufactures to the international market.

The fourth issue, economic co-operation between developing countries, is dealt with in chapter VI with particular reference to the experience and prospects for trade, investment, technology, finance and energy.

An analysis of the recent trends in the process of industrial development in developing countries is an ambitious task, especially when the stress is on the actions taken by individual Governments, as it is within the context of UNIDO monitoring exercises. For this reason, the third monitoring exercise had particular difficulties. First, it was impossible to obtain contributions from the Governments of several key countries, developed and developing, which makes more difficult the use of the inevitable generalizations. Secondly, the period of this exercise, the late 1970s and the first years of the 1980s, was a time of such deep changes, which are still taking place, that it is increasingly difficult both for the countries concerned and for such organizations as UNIDO, to distinguish the nature and direction of on-going events, and the degree of significance of public policies as causes or reactions to such changes.

In the present period of change and uncertainty, many of the values and dogmas applied to economic development policies and plans over the past two decades are being seriously challenged; from the role of government intervention and the impact of transnational corporations to the prospects for export promotion policies and the significance of international aid. The complexities of the present changes are reflected in the increasingly different perceptions of countries and institutions of the factors involved and the probable evolution of present problems. Such different perceptions are in turn manifested in the growing disparity between economic strategies and public policies. They are clearly visible in the industrial sector. A complicating factor derives from the complexity and diversification of industrial development policies in developing countries over the last decade. For several of these countries the recent shocks occurred when new policies and institutions were being established to work towards a prospective scenario that is becoming increasingly improbable.

Many of the present policy strategies and efforts of developing countries relate to the framework outlined in such international plans as the International Development Strategy for the Third United Nations Development Decade[4/] and the Lima[1/] and New Delhi Declarations and Plans of Actions[3/] for the industrialization of developing countries. The assessment made through the present monitoring exercise and the ways in which the countries were approached by UNIDO are strongly linked to and based on the ideas, values and objectives that have been launched thereby.

It is against this background that the information considered relevant for the monitoring exercise was collected and analysed for this comprehensive report. The information submitted by Governments for this report presented the main features emerging from the recent performance of industrialization policies. The classification and categorization of the different patterns and trends observed used the experience of specific countries and instruments to illustrate the various findings. Statistical tables, composed mainly from the data provided in the replies of Governments are also included.

Although a thorough evaluation of the industrialization process in developing countries is provided in other UNIDO documents, the findings of this exercise recognize alarming recent evolutions. The replies of developing countries reflected the impact of the international economic crisis and the slow pace of growth of the industrial sector. The data indicate that a process of significantly slower industrial growth is under way in the developing world, in drastic contrast to the ambitious targets fixed by development plans. As a result, many countries are already observing that the participation of manufacturing in gross domestic product (GDP) is falling. For the responding countries, it is not difficult to indicate the factors in such performance. Perhaps the most interesting observation is that, apart from the well-known impact of recession in the North, higher interest rates and protectionism, the developing countries also give importance to a number of domestic problems: these include not only structural constraints such as small size and weak inter-sectoral linkages, but also the recognition of income distribution bottle-necks, inadequate public policies or their inefficient implementation, and socio-cultural limitations such as a preference on the part of local businessmen for trading rather than industrial production. Such understanding is one of the many signs of the increasing maturity that can be observed in the approaches to development by developing countries.

The present apparently unpromising prospects of industry have not, however, altered the conviction of most developing countries of its key role as a factor for growth, structural adjustment, mobilization of additional savings for investment, achievement of backward and forward linkages and more equitable distribution of income. Such a basic approach is today increasingly manifested in different strategic options for industrialization. In particular, policies that give a wider role to market prices and tend to make more selective the overall intervention of the State in the industrial process are clearly at work in a number of developing countries. This tendency is more visible in some of the more advanced developing countries. It reflects both the need to overcome the limitations faced by traditional import-substitution policies and the emergence of decentralized productive forces in national economies.

The analysis of the replies indicates that it is frequently difficult for Governments of developing countries to achieve all the objectives they set in their industrialization strategies, which objectives vary greatly in individual countries. Nevertheless, the responses suggest that the salient features of industrialization strategies may be characterized under the following main themes:

(a) The development of agro-related industries, either agro-processing or producers of inputs for agriculture;

(b) The full utilization and development of domestic resources, reflecting both self-reliant principles and comparative advantages criteria with regard to the development of renewable and non-renewable natural resources as well as human resources;

(c) The production of mass consumption or "basic" goods to satisfy the needs and raise the living standards of the poorest segments of the population;

(d) The development of the capital goods industry, in view of its vital importance for the process of vertical integration, higher value added and employment;

(e) A greater emphasis on export promotion policies, often combined with the objective of pursuing import substitution activities in a more selective and efficient way;

(f) A greater emphasis on equity and welfare objectives, manifested in the concern about employment levels, expansion of labour-intensive industries, training of workers, increased encouragement of industrial-deconcentration and small and medium-sized enterprises, improved production and distribution of basic goods, and, in some developing countries, promotion of the integration of women in the industrialization process.

Most government strategies emphasized the objective of increasing the industrial utilization of natural resources through downstream processing activities. Most countries are applying a number of policies with that purpose, including a greater involvement of the State through new public enterprises, programmes of compulsory industrial integration, direct incentives and subsidies, building up of infrastructure facilities, special arrangements with transnational corporations etc. Particular efforts have been initiated or expanded in the field of energy, especially in the oil-importing developing countries, through the expansion of the exploitation of mineral fuels, energy conservation policies and the search for new and alternative sources of energy.

The public sector continues to play a major role. Its weight in the industrial sector is increasing in many developing countries where its participation in both value added and employment has achieved significant levels. At the same time the analysis has shown important differences in the role accorded to the public sector, ranging from countries in which it has an overwhelming participation and commanding functions, to those in which the State is called to provide the general orientations of the industrial process and the basic infrastructure, but fulfils subsidiary functions with regard to the private sector. In broad terms, the recent evolution of public sector policies indicate the following trends in a larger share of countries: (a) a clearer distinction between the various roles of the State as a regulatory institution, a supplier of infrastructural inputs and a direct participant in productive activities; (b) a greater emphasis on the efficiency and selectiveness of state intervention and participation, which in some countries means emphasizing the deregulation and "liberalization" of the economy from certain public controls; and (c) a clearer demarcation of sectors in which the respective contributions of public and private sectors is established or promoted.

With regard to the role of transnational corporations, the exercise reveals a wide variation of approaches and policies with regard to entry conditions and standards of treatment, but certain observations can be made, as below.

First, there seems to be virtually no country in which foreign investments are not admitted, subject to certain restrictions. In addition, most developing countries are clearly and actively interested in receiving the contribution of transnational corporations, especially for priority industries. Secondly, there is a definite trend towards the establishment of a legal and institutional framework for dealing with foreign investments; although it started in the early 1970s, this trend has been expanding noticeably in the last three to four years among a large number of countries. Thirdly, the most common policy approach at present is a mix of controls on entry and performance of transnational corportions, with incentives and advantages based on increasingly defined criteria of evaluation, such as the level and conditions of the technology transfer, the export performance and the participation of local investors. And fourthly, a significant share of countries, particularly among the most advanced and with more legal and administrative experience in dealing with transnational corporations, have recently made their control-oriented regimes more flexible.

The overall analysis of the present strategies of industrialization of developing countries reveals that the international crisis and its already visible impact on the growth patterns of industry have not affected the reliance of Governments on the central contribution of the industrial sector. Such an impact together with certain domestic developments are, however, behind a number of changes of approach and emphasis on the selection of priority industries, the role of government intervention and other aspects, which in general are directed to improve the efficiency of the process of structural adjustment.

The way in which the monitoring exercise was carried out permitted the comparison of the adjustment process in developing countries with the current views and trends in developed countries, which are called on to provide a major contribution to the industrialization process in the third world. In this respect, it is evident from the replies that worsening economic conditions are slowing down the process of adjustment in most developed countries, with negative consequences on the possibilities of industrial redeployment to developing countries. In effect, although most developed countries recognize the importance of structural adjustment and the international division of labour with developing countries, they also admit the need for government intervention to influence the rhythm and direction of the adjustment process in order to prevent or mitigate politically, economically and socially unacceptable consequences. Such protectionist measures, taken in the employment, investment, and trade fields, tend to cover industrial activities in which developing countries have a comparative advantage, as is the case of certain traditional and mature industries. Also, incentives to promote investments in local industries or through specially affected categories of enterprises tend to have a negative impact from the viewpoint of an efficient international division of labour.

However, over the last decade some developed countries have initiated policies and programmes designed to encourage the industrial co-operation of enterprises, particularly of the private sector, with Governments and firms of developing countries. Some of the policies adopted, such as the various development financial corporations, and the encouragement of smaller firms, seem to open important alternatives and means of co-operation that, although falling too short of compensating for the negative impact of protectionist measures, may open alternatives that should be expanded and improved.

The second part of the report provides a more detailed outlook on the ongoing trends in the policies related to four special issues: technology, finance, trade, and economic co-operation between developing countries. The general picture that emerges from the analysis is mixed, with asymetries regarding the following: first, the respective efforts and approaches of developed and developing countries; secondly, the different performance and achievements of various developing countries; thirdly, the relative progress achieved and problems affecting each of the main issues; and finally, the different policy approaches adopted and policy instruments selected within each of the main themes.

In the technology field, the outlook of developing countries shows an impressive effort to introduce technology oriented concepts, institutions and policies in virtually all countries. To judge by the number and quality of measures, the area that appears to have received more attention is the transfer of technology. Many countries, especially but not exclusively those at middle or more advanced development levels, have adopted technology transfer systems with the purpose of controlling the financial impact of technology payments and avoiding restrictive business clauses in licensing contracts. The selection and evaluation of imports of technology are, however, still weakly covered by most recipient countries, although efforts have been initiated in the more advanced countries by establishing technology information centres. Some of these countries are changing their early emphasis on control of abuses towards a less defensive approach, focusing on the quality of the technology and its effective absorption by the local industry. In the areas of technology planning, research and development, the increased government intervention reflects both the growing awareness of Governments of the need to have active policies, as well as the dissatisfaction with the existing ones, which are generally considered to be of little effect as a result of the weak links between Government, research centres and institutional sectors. In a few countries, direct tax and financial incentives are being tried as a way of encouraging innovation in the private sector.

In addition, the area of training seems to be receiving greater attention from Governments, which have, in virtually all cases, reported on measures in the field of vocational training, apprenticeship schemes, in-plant training etc. However, the existence of significant deficits in the available resources of skilled labour was unanimously recognized.

The outlook of the present contribution of developed countries offers a serious negative aspect in the visible problems that are currently affecting the maintenance and expansion of Official Development Assistance (ODA), in which technical assistance occupies an important place. Moreover, the share of industry in technical assistance continues to be low in comparison with other sectors. On the positive side, account should be taken of the existence, in some developed countries, of programmes and schemes that are specially dedicated to the development and transfer to developing countries of "appropriate", "adapted" or "intermediate" technologies, eventually in co-operation with research centres of the third world.

The analysis of the second special issue, finance, and in particular its application to industry, inevitably deals with the worsening international situation of the financial system and its transmission to developing countries. The recent tighter conditions of the access to capital markets and the sharp increases in interest rates, coupled with the diminishing role of aid and the weakness of new direct foreign investments in developing countries, are clearly aggravating the liquidity positions of most developing countries and curtailing investment. The picture is particularly dramatic for the least developed of the developing countries, which depend substantially on ODA flows and where the relative decrease of foreign investment is more evident. But at the same time, the evidence indicates that national savings have been steadily increasing in many developing countries. This is a result of the gradual modernization of the financial structures and sounder macro-economic policies, including a greater emphasis on the efficiency of public expenditures. Although inflationary pressures and inadequate instruments have hampered the attraction of savings to long-term productive investments, several countries have been recently improving the available financial assets and development finance institutions, designed to play a catalytic role in industrial development. They are already established in virtually all developing countries. But the trends in the international financial system do not match adequately this effort of adjustment in policies and institutions, which for the time being may only play a complementary role in the mobilization of the financial resources needed for industrial growth in developing countries.

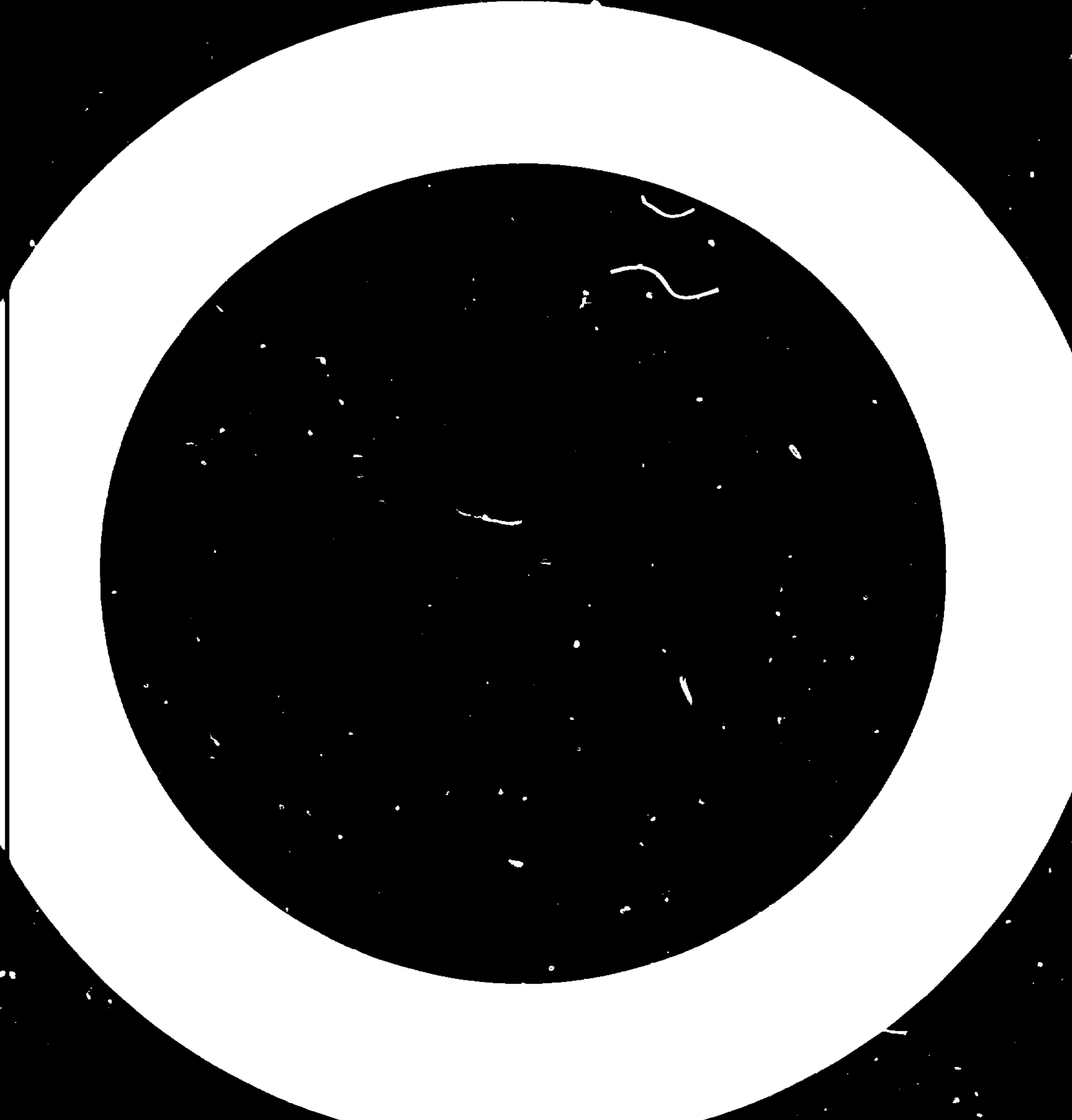
With respect to the third issue analysed, which is trade, the exercise reveals a stronger awareness of Governments of the need to increase the outward orientation of the manufacturing industry through adequate policies and incentives. It appears, in effect, that the policy frame of most developing countries has been gradually evolving towards a greater encouragement of exports through a diversified number of incentives, and that these incentives tend to become increasingly sophisticated. Thus, from traditional tax and duty schemes, many countries have moved to a larger use of specialized credit, then to the provision of packages of subsidies in the form of export processing zones or through the action of multi-purpose export development agencies. Recently, several countries have been making more use of macro-economic policies, such as making tariff protection and exchange rates flexible, and introducing indirect measures of incentives through the promotion of technological innovation, quality improvement and marketing awareness. On the other hand, the available evidence indicates that a remarkable growth of the export of manufactures has followed since the promotional policies were put to work in developing countries, leading to a significant increase of the share of such goods in total sales abroad. The data provided by the responding countries indicate that this overall tendency is still present.

Export of manufactures to developed countries have steadily increased in the last two decades, but South-South trade proved to be the most dynamic. However, the source of the bulk of manufactured imports of developing countries continues to be the North, while the South's share in such a market remains small. As the developed countries continue to represent the most important market for the manufactured exports of developing countries, the increasing tide of protectionist measures in the North introduces serious obstacles for the expansion of such trade.

Notwithstanding the intentions expressed and the efforts made by certain developed countries to contain the growing wave of protectionism, in recent years there has been an increasing reliance on export restraint and market-sharing arrangements designed to protect traditional markets without conforming to multilaterally agreed safeguard procedures. Infractions and circumventions to the rules have tended to multiply. This is exemplified by the increasing tendency to resort to restraints on trade such as in the steel, automobile, synthetic fibre and petrochemical industries.

Against this outlook it is very difficult to ascertain and compare the alternatives open to developing countries. Although the small share of developing countries in the imports of manufactures of developed countries suggests in theory an enormous potential for further expansion of such trade, the new protectionist measures make such prospects bleak. All alternatives seem to imply, in one way or the other, the continuous effort of export promotion upon which most developing countries are presently embarked. Yet in view of the increased external constraints and the growing competition between developing countries adopting similar export-aggressive strategies, the question arises as to the cost-benefit differential of such promotional policies. Developing countries may need to adopt a more cautious approach with regard to export incentives, and to co-ordinate their activities as far as is possible.

Against the sombre background offered by the most important dimensions of industrial development policies, and in view of the incidence of such conditions in the world economic situation, the possibility of collective self-reliance through South-South co-operation seems today more valid than ever. The last analysis of the monitoring exercise is, then, dedicated to the recent trends in economic co-operation among developing countries. What emerges is an increasing network of relationships being built up through different forms - bilateral agreements, joint ventures, multilateral schemes, integration programmes - and actors - Governments, public enterprises, private firms. Trade co-operation finds its most important instrument in the various regional integration schemes that have continued to expand in many developing countries, and that canalize an increasing share of the South-South trade. The creation of bi-national and multi-national enterprises between developing countries is a growing phenomenon, encompassing many countries, firms and sectors, that needs to be regulated and adequately encouraged. Technolcgical co-operation is being promoted by several schemes of regional and international organizations, but it is also encouraged by the increasing international competitiveness of technologies adopted in the more advanced developing countries, which find a growing market in other developing countries. In the field of finance there are already several examples of joint creation of bilateral and multilateral financial institutions, collaboration of surplus rich countries with deficit developing countries, and joint action in international financial organizations. In sum, economic co-operation among developing countries is gradually evolving from grand declarations and programmes to concrete projects and experiences. Much remains to be done in order to exploit adequately all the potential of economic co-operation among developing countries, which in the short- and medium-term cannot offer more than a share of the resources and inputs needed by developing countries. But perhaps a more significant contribution could be drawn from it by offering to the international community some new approaches, models and solutions for the increasingly complex task of economic development that could effectively replace the present ones, which are unreliable.



Part one

MAIN TRENDS AND POLICIES IN THE INDUSTRIALIZATION OF DEVELOPING COUNTRIES

I. INDUSTRIAL DEVELOPMENT PLANNING AND STRATEGIES IN DEVELOPING COUNTRIES

In the Lima Declaration and Plan of Action on Industrial Development and Co-operation[5/] the developing countries are requested to draw up multisectoral, long-term strategies and industrialization plans with a view to establishing production facilities covering all branches of industry. Particular importance is attached to the development of basic, integral and agro-related industries, and to those based on natural resources as well as to small- and medium-scale production. The Lima Plan of Action also emphasizes an efficient import substitution process and the export of manufactures. In addition, social justice is viewed as an imperative objective of industrialization. The leading role of the state is strongly affirmed, although the contributions of the private sector and foreign investment are also important.

Information obtained in the Third Monitoring Exercise is reviewed in the following pages with regard to actions taken by Governments and the progress achieved in the context of the above-mentioned guidelines. The first section deals with some aspects of the recent performance of the industrial sector in developing countries, emphasizing the problems that are at present affecting the growth of manufacturing production. The second section analyses the main features and trends of the industrialization strategies followed by Governments, with particular attention to two general aspects that have been stressed by the Lima and New Delhi Plans: the development of natural resources and the priority to be accorded to social objectives. The third and fourth sections deal with the role of two strategic actors of the industrialization process: the public sector and transnational corporations.

The role of industry and the main factors affecting manufacturing production

The process of industrialization is at present facing serious problems in most developing countries. The contrast between the optimistic growth targets of development plans and the deterioration of some basic economic indicators is striking. Information supplied by 46 developing countries (see table 2 below) reveals that, while the current development plans (most of them covering three-to-five-year periods between 1976 and 1986) fix annual growth targets varying from 5 per cent to 17.9 per cent (and in one case of 34 per cent), there is a significant decline in the growth rates experienced since the late 1970s. There are few exceptions to this, perhaps the most interesting being the cases of Benin, Guyana, Indonesia, Tunisia and Zimbabwe, which reported for 1980 an actual growth rate in the manufacturing sector significantly higher than the plans' targets. In addition, table 3 shows that in a significant number of countries, the participation of manufacturing in GDP is falling. For 30 per cent of a total of 46 countries that reported on this issue, the share of manufacturing is clearly decreasing, while in most of the other countries the gains are modest, within an erratic trend of changes.* The search for explanations by comparing the countries placed in

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*The context in which the changing share of manufacturing is taking place is crucial: for example, in Turkey the share increases while the GDP is decreasing, including the product of manufacturing; and in Mexico, the share of manufacturing is decreasing, but in a context of remarkable growth of the economy during the reported period (particularly in the oil sector). There are cases of abrupt fall of the share of manufacturing in the most recent periods reported, such as in Ecuador (from 15.80 per cent in 1970 to 7.70 per cent in 1980) and Kenya (from 19 per cent in 1979 to 14 per cent in 1980).

Table 2. Growth rates of the manufacturing sector in 46 developing countries
(As reported by Governments in replies to questionnaires)

Country	Actual annual growth rate[a]							Development plans	
	1975	1976	1977	1978 (%)	1979	1980	1981	Annual growth rate (%)	Plan period
Argentina	-2.6	-3.0	7.8	-10.	10.2	-3.3	...	...	...
Bangladesh	...	11.4	10.3	10.3	4.4	2.0	8.8	8.3	1980-1985
Benin	21.1	23.7	10.4	10.5	20.7	21.2	...	13.3	1981-1985
Bolivia	6.1	8.3	6.1	4.5[b]	2.8[b]	-1[b]	...	9.6	1976-1980
Brazil	4.4	10.5	2.3	7.5	7.0	7.6	...	...	1980-1985
Burundi	0.7	14.5	23.1	13.2	3.7	13.7	7.3	13.9	1978-1982
Chile	-22.5	6.0	8.5	9.3	6.9	5.0	...	...	...
Costa Rica	4.3	5.8	6.5	8.7	3.7	5.9	-4.6	...	...
Cyprus	...	...	...	...	6.9	6.9	...	8.7	1979-1981
Ecuador	19.5	14.4	9.1	0.8	8.9	6.8	...	9.0	1980-1984
El Salvador	4.7	8.7	5.3	-3.3	-8.3	-14.4	...	9.3	1977-1982
Ethiopia	-1.6	0.8	2.3	-3.9	27.3	10.5	...	17.9[d]	1980-1981
Guatemala	5.0	10.0	5.0	2.0	7.0	6.0	...	8.0	1979-1982
Guyana	...	...	...	2.4	6.5	13.8	17.0	6.0	...
Honduras	9.0	9.1	12.8	7.5	6.9	6.6	-1.3[c]	9.6	1979-1983
India	2.1	9.4	6.4	14.2	-1.9	0.0	...	7.62	1980-1985
Indonesia	12.3	9.7	13.7	11.2	12.9	21.1	...	11.0	1979-1984
Iraq	...	...	...	...	...	...	...	17.8	1976-1980
Kenya	...	...	15.9	12.6	7.6	4.6	...	9.0	1979-1983
Lesotho	...	17.0	37.0	39.6	...	44.6	...	...	1980-1985
Malawi	14.2	-2.2	10.6	8.7	5.0	3.9	...	8.0	1980-1985
Malta	13.4	27.4	19.1	5.2	9.8	...	...	6.2	1981-1985
Mauritius	...	...	15.0	0.0	4.0	3.0	...	...	...
Mexico	3.6	7.5	3.6	9.8	10.6	7.2	...	10.0	1980-1982
Nigeria	15.6	...	...	...	...	15.0	...	15.0	1981-1985
Oman	...	90.5[e]	107.5[e]	31.9[e]	26.8[e]	23.2[e]	...	34.2	1981-1985
Pakistan	...	1.6	0.4	9.2	4.6	9.5	9.2	10.0	1978-1983
Panama	16.0	14.0	13.0	13.0	14.0	15.0	...	...	...
Peru	4.1	4.0	-4.3	-3.9	4.1[b]	5.9[c]	...	5.1	1982-1986
Rep. of Korea	12.7	22.6	14.4	20.7	9.8	-1.2	...	9.2	1981-1983
Romania	...	...	...	...	...	...	...	7.6	1981-1985
Rwanda	...	...	10.3	6.1	-1.0	...	...	6.7	1980-1986
Senegal	5.1	7.5	4.5	-10.0	9.3	-9.0	...	5.0	1981-1985
Singapore	-2.0	10.1	7.6	11.3	15.0	11.9[b]	...	11.0	1981-1990
Sri Lanka	2.9	1.8	1.1	8.4	4.0	8.0	...	8.3	1980-1985
Sudan	...	8.1[e]	8.2[e]	3.1[e]	8.3[e]	8.1[e]	8.1[e]	9.5	1977-1983
Thailand	6.9	15.6	13.0	9.3	10.1	6.1	...	7.6	1982-1986
Togo	...	...	...	...	...	4.5[f]	...	6.5	1981-1985
Tunisia	1.7	20.9	5.4	11.0	9.3	13.3	...	11.7	1977-1981
Turkey	8.1	10.0	8.1	2.6	-5.3	-5.2	...	11.4	1979-1983
United Rep. of Cameroon	...	...	29.9	32.1	...	...	...	15.0	1976-1980
Uruguay	6.7	4.0	6.1	6.1	10.1	2.6	...	...	...
Venezuela	11.4	11.9	4.1	4.9	5.1	3.8	...	6.2	1981-1985
Yugoslavia	6.4	3.6	9.5	3.6	8.2	4.1	...	5.0	1981-1985
Zaire	...	-7.9	-2.1	-12.1	-8.1	...	...	...	...
Zimbabwe	-0.9	-5.7	-5.2	-3.3	10.7	15.6	...	11.0	1982-1985

a/ On the basis of constant prices.
b/ Preliminary figures.
c/ Estimated.
d/ Growth rate is set for establishments administered by the Ministry of Industry.
e/ On the basis of current prices.
f/ Average actual growth rate for the period 1976-1980.

Table 3. Share of manufacturing in GDP of 46 reporting developing countries

	1980 versus 1975		1980 versus 1978	
Countries with an increasing share of manufacturing in GDP	Bolivia Burundi Chile China Ethiopia Guatemala Honduras India (1979 vs.1975) Indonesia Kenya Malawi	Malta Nigeria Oman Peru Rep. of Korea Singapore Thailand Turkey Venezuela Yugoslavia Zimbabwe	Benin Bolivia Brazil Burundi China Ethiopia Honduras India (1979 vs.1978) Indonesia Kenya Malawi	Mauritius Nigeria Pakistan Panama Rep. of Korea Rwanda Singapore Turkey Venezuela Yugoslavia Zimbabwe
Countries with a decreasing share of manufacturing in GDP	Argentina Bangladesh Benin Brazil Ecuador Guyana Madagascar	Mexico Pakistan Panama Romania Sudan Togo Uruguay	Argentina Chile Ecuador Guatemala Malta Mexico Oman	Peru Romania Rwanda Thailand Togo Uruguay Zaire

Country	Share (%)					
	1975	1978	1979	1980	1985 a/	Target year of current development plan
Argentina	27.7	25.3	26.1	24.9	...	...
Bahamas	7.0	...	...	...	...	...
Bangladesh	7.6	7.2	7.1	7.2 b/	...	...
Benin	8.2	5.8	6.1	6.4	...	...
Bolivia	13.4	13.1	13.5	14.1	...	...
Brazil	25.0	22.8	23.0	23.5	...	...
Burundi	11.0	15.7	15.3	16.1	13.7	12.4 (1987)
Chile	20.3	22.4	20.4	20.7	...	...
China	72.0 c/	74.0 c/	74.0 c/	75.0 c/	...	...
Ecuador	12.9	15.8	11.9	7.7	...	...
Ethiopia	6.1	5.6	6.7	7.0	...	...
Guatemala	15.0	15.2	15.2	15.1	15.3	15.2 (1982)
Guyana	14.7	12.1	12.4	12.1	...	...
Honduras	14.9	16.0	16.1	16.6	...	17.3 (1982)
India	15.6	17.5	18.1	...	...	19.2 (1984/85)
Indonesia	8.9	10.6	10.3	11.6	...	...
Iraq	6.6	7.0	...	...	...	...
Kenya	12.7	13.0	19.0	14.0 b/	...	...
Lesotho	4.1	...	4.0	...	...	...
Madagascar	18.0 d/	...	..	11.0 e/	...	...
Malawi	12.8	12.4	12.5	12.9	14.7	15.3 (1986)
Malta	25.6	29.6	30.0	29.1	32.1	...
Mauritius	18.0	16.0	17.0	18.0	...	...
Mexico f/	23.2	23.5	23.3	23.1	24.0	25.1 (1990)
Niger	...	6.8	...	...	...	7.3 (1983)
Nigeria	5.4	6.4	5.5	8.0	12.2	12.2 (1985)
Oman	0.3	1.3	1.2	0.9	2.3	...
Pakistan	16.7	16.0	15.7	16.4	19.2	...
Panama	15.4	12.8	13.8	13.7	14.6	...
Peru	24.5	27.6	27.1 b/	27.1 a/	26.6	26.6 (1986)
Rep. of Korea	26.5	27.0	26.9	29.4	31.1	31.7 (1986)
Romania	53.9	52.3	52.3	52.0	...	...
Rwanda	12.3	15.6	12.8	15.3	...	15.1 (1986)
Senegal	...	...	17.0	...	...	...
Singapore	21.2	22.4	21.6	23.9	...	31.0 (1990)
Sudan g/	8.4	8.2	8.2	7.8	...	...
Thailand	18.0	13.0	19.7	18.7	...	...
Togo	7.4	6.5	5.2	5.6	...	...
Turkey	17.0	19.5	20.7	21.4 a/	...	...
United Rep. of Cameroon	...	18.0	...	...	...	...
Upper Volta	12.5	11.6	...	...	...	...
Uruguay	25.3	25.5	26.1	25.0	...	...
Venezuela	14.6	14.7	15.3	16.1	14.5	14.5 (1985)
Yugoslavia	37.0	38.0	38.4	39.0	40.5	...
Zaire	...	11.6	...	7.8	...	...
Zimbabwe	23.3	23.3	26.0	25.5	28.5	28.5 (1985)

a/ Estimated.

b/ Tentative.

c/ Percentage of industrial production value in the total industrial and agricultural value.

d/ Before the 1973 crisis.

e/ After the 1979 crisis.

f/ Data provided by Secretaría de Programación y Presupuesto.

g/ Figures refer to 1975/76, 1978/79, 1979/80 and 1980/81.

one category and the other is fruitless: in both cases we find different levels of development, sizes, regions, and resource endowments. The picture simply reflects the complexity of the present situation. Whatever the causes, and factors, what the data reveal is that at the present the manufacturing sector is not playing the dynamic role that was expected a few years ago.

The Lima Declaration and Plan of Action anticipated a number of factors creating problems and obstacles to the industrialization of developing countries, such as the worsening of the terms of trade, the heavy foreign debt servicing, the inflationary increases in import costs, the dependence on the export of primary goods, the effects of world economic instability and of certain economic policies pursued by industrialized countries. The information obtained by the questionnaire on the major negative factors perceived by the reporting countries reflects the persistance of such obstacles, the worsening of some of them and the growing concern of Governments regarding their implications for industrial development in the near future.

The replies of Governments refer to both external and domestic constraints. Regarding external constraints, the replies refer to the current international crisis. The high import content of the manufacturing sector in most developing countries, and its dependence on external sources for various raw materials, intermediate goods and capital equipment, causes serious problems reflected in the aggravation of the balance-of-payment constraints for many primary exporting countries and several of the faster-growing exporters of manufactures. The deterioration of terms of trade is cited by all but the oil-exporting countries. International recession, particularly in the advanced economies, is mentioned as one of the main reasons for the fall of exports, explained by increased protectionist measures in such markets and by lower commodity prices. World inflation, higher interests rates and increasing difficulties for debt servicing affect virtually all developing countries, and particularly the less advanced, which emphasize their lack of foreign exchange to pay for essential raw materials and capital goods. For the more advanced developing countries that could have access to short-term borrowings in the international capital market, those sources of funds started recently to dry out. In addition to these international factors, for such developing countries as the small Latin-American nations (Bolivia, Guatemala, Guyana) whose manufacturing sector is dependent on trade-expansion arrangements within regional integration programmes (the Andean Group, the Central American Common Market, the Caribbean Community), the slower progress of some of these schemes in the recent period added an important negative factor.[6/] On the other hand, as suggested by the replies of Madagascar and Turkey, external events had an adverse impact in some countries at a time when basic policy changes were taking place in the national economies.

Internal problems, including various structural constraints, were also identified. Less advanced countries, such as Burundi, Costa Rica, Ethiopia, Guyana, Honduras, Oman, Panama and Togo, referred to the small national economy as severely limiting industrialization. Larger developing countries mentioned the decreased purchasing power of the population as a factor for the contraction or slower growth of the domestic market (explained by inflation, high interest rates and domestic stabilization policies, such as in Peru, or by income distribution bottle-necks, such as in India and Mexico). Structural maladjustments were mentioned by many countries as an important problem. For example, Bahamas referred to the absence of linkages between the major productive sectors of the economy; Pakistan, Thailand and Yugoslavia to the low capacity built into some branches of industry, and China to the backwardness of energy and raw materials industries (reflected in the gross over-stocking of high-energy consumption items by heavy industrial enterprises that since 1981 have suffered from severe investment cuts in capital construction).

Countries highly dependent on agricultural production, such as Benin, Bolivia, Burundi, Kenya and Senegal, mentioned the bad performance of that sector, explained by climatic vicissitudes and inadequate policies.

The issue of inadequate domestic policies was mentioned in a good share of the replies. In large or semi-industrialized countries (India, Mexico, Thailand) reference is made in general to the shortcomings and limitations of the previous import substitution policies, the under-exploitation of the available export potential, the existing social inequality, and the distorted investment allocations. For example, the Republic of Korea mentions the high inflationary pressures derived from the previous policy of directing more financial resources towards heavy and chemical industries at low cost, and Turkey referred to the negative effects of past interventionist policies. In less industrialized countries, such as Bolivia, Honduras, Nigeria, the self-criticism is focused on the inefficiency of the public sector and the inadequate links between government institutions and private enterprises. Guyana refers to the lack of an organized approach for development.

A number of replies emphasize the weakness of the industrial infrastructure. Mexico, India, Thailand, Nigeria and Sudan refer to transport bottle-necks; others, such as Pakistan and Madagascar, to the obsolescence of capital equipment; and several mention the lack of a local capital market and financial sources for industry. For example, in the Bahamas the main sources are the many international banks that operate locally, but their lending policies do not reflect local conditions; and in Guatemala, the high rates of interest abroad have led to disinvestment of national capital. Such fade out or reluctance of private investors with regard to the local industrial business is also explained by the persistent traditional bias against industry of local capitalists in many developing countries, who continue to be attracted by commerce rather than productive activities - mentioned by Bolivia, Nigeria, Niger, Oman and Panama.

Finally, the lack of domestic skills (industrial experience, local know-how, deficient management, specialized labour, poor marketing networks) was referred to by many countries, especially the less advanced (Benin, Ethiopia, Honduras, Iraq, Madagascar, Oman, Panama, Tunisia and Sudan). Yet a few other countries also mentioned the lack of advanced technologies as an important problem (Cyprus and Pakistan).

Industrialization strategies

The serious difficulties, disappointing experience and uncertain prospects of the industrialization process in developing countries probably influence certain shifts of emphasis of the central role of industry in economic growth. Certainly the poorer countries continue to reflect the dominance of the agricultural sector in the national economies, as indicated in the replies from Cameroon, Lesotho, Madagascar, Togo and Upper Volta, which declare that agriculture is the basis of economic development. But even in large industrializing countries a stronger emphasis is being put on the agricultural sector, now recognized as a determinant factor of the speed of the industrialization process. For example, the economic development plan of Brazil has accorded high priority to agriculture and linked to its expansion the industrial strategies established.

In general there is a more balanced, less one-sided approach to the roles of industry and agriculture. Yet the confidence in industry as an important source of economic growth is manifest in the development plans of the reporting countries. Most plans, which in most cases are being completed in the first part of the current decade, have set up ambitious growth targets for industrial production and identified the priority sectors and branches of manufacturing (table . They also devote attention to the formulation of strategies and policies for the secondary sector.

Main features and trends

Probably the most significant trend is the increasing differentiation of strategies, approaches and policies of industrialization between developing countries. These reflect the various situations in which developing countries can be placed in terms of stages of development, size of markets, and availability of natural and human resources. Regardless of such structural differences, there seems to be an increasing dispersion of deliberate strategic options and basic policy approaches to industrialization.

The most frequent strategy still broadly defines the industrial sector as a crucial factor to achieve growth and economic development, greater utilization of domestic resources and productive capacities, and more efficient levels of production and a more balanced economy, characterized by less social asymetries, fewer regional disparities and more equitable distribution of growth benefits. The role of government intervention in its several dimensions is significant, if not essential, in this approach to industrial development.

In recent years a different approach has emerged in some countries, particularily those with longer experience in the process of industrialization. In these countries, while the important role of industry is preserved, the strategy is based on or defined in terms of the increased utilization of the market forces as a mechanism for an efficient allocation of resources and the identification of industrial activities on the basis of comparative advantages. This conception is well illustrated by the recent cases of Chile and Uruguay, which tend to define comparative advantages in terms of the available natural resources, and the role of the state in ensuring the adequate working of the price system. This approach introduces a significant departure from or at least a reinterpretation of certain guidelines of the Lima and New Delhi Plans of Action, such as the emphasis on the development of the government sector and industrial diversification. In a number of other countries, the greater reliance on market prices is noticeable, though in a more flexible way. For example, the Republic of Korea and Turkey, among others, have stated strongly the objective of liberalizing the economy and reducing the level of government intervention in order to achieve more efficient productive structures.

Table 4. Major groups of manufacturing industries included as priority sectors in current development plans of 45 developing countries[a/]

Country	Food, beverages and tobacco (ISIC 31)	Textile, wearing apparel and leather industries (ISIC 32)	Wood and wood products, including furniture (ISIC 33)	Paper and paper products, printing and publishing (ISIC 34)	Chemicals and chemical, petroleum, coal, rubber and plastic prodcucts (ISIC 35)	Non-metallic mineral products, except production of petroleum and coal (ISIC 36)	Basic metal industries (ISIC 37)	Fabricated metal products, machinery and equipment (ISIC 38)	Other manufacturing industries (ISIC 39)
Bahamas	x				x	x		x	
Bangladesh	x	x			x		x	x	
Benin	x	x			x	x		x	
Bolivia	x				x	x			
Burundi	x	x			x	x			
Comoros	x		x		x				
Costa Rica	x							x	
Cyprus	x	x				x			
Ecuador	x		x		x		x	x	
Ethiopia	x	x			x	x	x	x	
Guatemala	x	x			x	x		x	
Guyana		x	x			x	x	x	
Honduras	x	x	x			x		x	
India					x		x	x	
Indonesia	x	x			x	x	x	x	
Iraq					x	x		x	
Lesotho	x	x							
Madagascar	x	x		x	x	x		x	
Malawi	x	x			x	x			
Malta								x	
Mauritius		x						x	
Niger	x	x				x			
Nigeria	x				x	x	x	x	
Oman	x				x	x	x		
Pakistan	x	x				x		x	
Panama	x	x					x	x	
Peru	x	x	x		x	x	x	x	
Rep. of Korea	x	x			x		x	x	
Romania	x	x			x	x	x	x	
Rwanda	x	x						x	
Senegal	x	x	x		x			x	
Singapore					x			x	
Sri Lanka	x	x				x			
Sudan	x	x			x	x	x		
Thailand	x	x	x	x	x		x	x	x
Togo	x	x			x	x	x	x	
Tunisia	x	x			x	x		x	
Turkey					x		x	x	
United Rep. of Cameroon	x	x			x	x			
Upper Volta	x	x			x		x	x	
Uruguay	x	x						x	
Venezuela	x	x			x	x		x	
Yugoslavia					x	x	x		
Zaire	x	x			x	x		x	
Zimbabwe	x	x		x	x	x			

a/ Data were requested for the periods 1975-1979 and 1980-1985. The priorities set for both periods, in the great majority, did not differ. The table therefore presents the 1975-1985 picture.

To establish the current mood and tendencies of the industrial development strategies in the third world, reference must be made to the increasing complexity of mixed approaches that, although based on an active, and sometimes commanding, role of the State also take into account complementary factors and forces and emphasize a variety of objectives. This more balanced view is partly explained by the maturity reached by some Governments, institutions and productive units after a relatively long period of experimentation with industrial development policies. Thus the following patterns can be observed:

Development of agro-industries and agro-related industries

Emphasis on the development of agro-industries and agro-related industries in order to promote forward and backward linkages and strengthen integration between agriculture and manufacturing. This is a dominant theme in a significant number of countries, especially in the least developed with a large population and an important agricultural sector, but also in a number of the largest, semi-industrialized countries, where the experience of industrialization has revealed serious imbalances in the productive system, and their new strategies stress social and distributional objectives. Thus the concentration of efforts on agro-industry is expressed in the replies of countries such as Benin, Burundi, Cameroon, Guyana, Madagascar, Panama, Sri Lanka, Sudan, Togo and Upper Volta, where mainly agro-processing activities are emphasized; and in more advanced countries such as Brazil, Indonesia, Mexico, Pakistan, Peru, Romania and Thailand, where the role assigned to the production of inputs for agriculture, such as machinery, fertilizers and pesticides, is also relevant. For example, the Fifth Plan of Pakistan has earmarked nearly 38 per cent of the investment in industry for agro-related industries.

Full utilization and development of national resources

The full utilization and development of national resources is emphasized in virtually all the replies. It is related not only to the goals of self-reliance, but also to the principles of comparative advantages, such as: (a) the abundance of non-renewable natural resources (e.g., mining in Bolivia, Guyana, Honduras, India, Pakistan, Thailand and Togo; oil in Iraq, Oman, and several other producers); (b) renewable natural resources (forestry in Ecuador, Guyana, Madagascar and Zimbabwe; fishing in the Bahamas, Oman and Uruguay); (c) hydro-electrical resources (Brazil, China); and (d) human resources (Costa Rica, Guatemala, India, Kenya, Mexico, Nigeria, Pakistan, Sri Lanka, Sudan, Thailand). Human resources in most countries refers to the abundance and low price of labour, but in some of the more advanced developing countries also refers to the utilization of highly skilled workers and technicians (e.g., India, Malta, Romania, Singapore). In view of the relevance accorded to national resources development in the Lima and New Delhi Plans, the questionnaire obtained detailed information on the action recently taken by Governments in this field (see chapter I under the sub-head "Utilization of natural resources and in chapter III "Human resources development" below).

Increased production of basic goods for mass consumption

The increased production of basic goods for mass consumption now has priority in a number of developing countries. Although generally concerned with the production of food, other basic needs are taken into account such as footwear, clothing, household appliances. The development plans of China, Ethiopia, Guatemala, Honduras, India, Indonesia, Kenya, Madagscar, Mexico, Oman, Romania and Pakistan are explicit in this regard. In less advanced developing countries, the objective is to raise the standard of living of the poorest groups of the population. In some populous semi-industrialized countries the aim is to re-orient production from an excessive reliance on capital-intensive, heavy industries to rural, small-scale activities. For example, China admits that for a long time emphasis was given to the development of heavy industry; in future, prime importance shall be given to the development of the consumer goods industry. In Mexico, basic consumer goods, in particular foodstuffs, were the starting point of the long-term industrial development plan adopted in 1979.

Development of the capital goods industry

The development of the capital goods industry is a strong feature in the plans of a number of the more advanced developing countries, which, having gone a long way in the import substitution process, are now trying to establish int~~al industries with a high technology content. Thus India and the Republic of Korea provide special attention to the capital goods industry in general and the electronic industry in particular as the basis for the growth of a wide range of economic activities; Pakistan proposes to enhance the capability of the sector in order to effectively utilize the increased output of certain basic industries such as steel, and to provide essential inputs for agriculture; Brazil has given top priority to the production of strategic capital goods, such as telecommunications and electronics equipment, and Mexico's Industrial Development Plan puts the manufacture of machinery and equipment in first place together with agro-industries, aiming at a more balanced integration of the industrial structure. On the other hand, certain less advanced but fast-growing developing countries, such as Ecuador, have listed the capital goods sectors as one of the final targets of the current development plans. The widespread interest in the capital goods sector and metal-working production in general is reflected in the list of priority items in table 4.

Export-oriented strategies

Export-oriented strategies are no longer only for a few South-east Asian countries, as they were in the mid-1960s. In the last few years, the idea that industrialization should be expanded to external markets instead of limited to the domestic frontiers has spread. Countries of different sizes, development levels and general economic policies have recognized the need to increase and diversify manufactures exports. The recent aggravation of the balance-of-payments situation of most countries has strengthened this trend. Thus the replies to the questionnaire show that small countries, such as Benin, Bolivia, Burundi, Ecuador, Honduras, Panama, Senegal and Sri Lanka, realize the need to overcome the distortions created by an excessive dependence on only one or two sectors for obtaining external resources; and that large and relatively advanced economies, such as Brazil, China, India and Mexico, realize that export orientation is a central element in the process of readjustment of over-protected productive structures after a long period of import substitution policies. Although for most countries the world is the market for exports, the regional scenario provided by integration schemes is mentioned by some Latin American and Caribbean countries, such as Ecuador, Guatemala, Guyana, Honduras and Peru, and some African countries, such as Senegal and Togo. However, there is no unanimity regarding sectors, methods and timings for the development of export-oriented strategies. For example, while less advanced countries such as Burundi and Honduras mention labour-intensive products or manufactures based on abundant local raw materials, semi-industrialized countries refer to capital-intensive goods and in some cases, such as Brazil and India, the export of technological services. Regarding instruments of policy, there seems to be also a wide range of approaches between countries that rely heavily on a host of export incentives and subsidies, and others that are based on competitive exports (see chapter V).

Continuation of import substitution efforts

The continuation of import substitution efforts in a "reasonable" and "efficient" way is repeated in a number of strategies. Virtually all replies mention the need to improve the efficiency of the existing productive structures or to ensure the efficient introduction of new activities. Sometimes the idea of efficiency implies, as in Chile, the drastic replacement of the import substitution policies; but more frequently what is meant is to complement such strategy by another in which export-oriented activities will be promoted together with the production of basic or essential goods (food) and capital and intermediate goods, bearing in mind the expansion of the domestic market, but also the possibilities of exporting such items (Brazil, India, Republic of Korea, Pakistan). A common denominator is the emphasis on carrying out import substitution efforts on the basis of the existing comparative advantages. For less industrialized countries such as Burundi, Cameroon, Ecuador and Honduras, but also for others that stress self-reliant or self-centered strategies, such as Iraq, Guyana or Madagascar, such a criterion is reflected in the reference to "selective" undertaking of activities replacing imports, and based on available raw materials and resources. In the more advanced countries, the emphasis is in general on rationalizing and improving the productivity of the existing capacities developed over a long period of highly protected industrialization. To this end, for example, the Industrial Policy Statement of India (1980) proposed to grant recognition and encourage the increased capacities arising out of technological improvements and labour productivity.

Equity and welfare objectives

A greater emphasis on equity and welfare objectives is made in most development strategies, whatever the various ways in which such aims are pursued. Such statements, whether they come, for example, from free market Chile and Uruguay or state-controlled Ethiopia and Madagascar, do not seem to differ substantially. Social objectives are directly involved in the already mentioned focus on the production of basic, essential goods and the development of agro-industries. Yet specific distribution-related goals are also expressed in many replies that emphasize aspects such as industrial deconcentration, employment, and small and medium-sized enterprises.

Utilization of natural resources

Of particular importance to developing countries is the effective control and utilization of natural resources paying attention to the advantages to be derived from the processing of raw materials intended for export, and to the need to conserve non-renewable resources, avoid wasteful consumption, and formulate policies of economic diversification. Increased downstream processing of natural resources by developing countries would further their industrialization, increase export earnings and result in a faster growth of gross national product (GNP). Over one half of the total exports of the developing countries requires further processing before final consumption.[7] In the case of minerals, which for many developing countries represent an overwhelming share of their total economic activity and foreign exchange income, by the mid-1970s only about 30 per cent of the production was processed.[8] Thus in most developing countries there are huge processing capacity gaps that call for adequate programmes and policies. The need for and the viability of such policies may vary significantly, depending on a combination of factors such as the potential for exploiting the natural resources; investment opportunities in other fields; economic considerations influencing comparative advantages for industrial processing; and the existence of the necessary financial, technological and marketing infrastructure Many forces have emerged in recent years that favour raw-materials processing in developing countries, including the availability of new sources of finance and technology, higher costs of production in developed countries increased by frequent pollution controls, and diminished importance of economies of scale for certain productions. Recent figures indicating a rise in the percentage of the exports of processed goods of developing countries suggest that such possibilities are beginning to be exploited.

The development and utilization of energy resources for industry is a strategic aspect in that context. The demand of developing countries for energy is expected to increase substantially during the 1980s, so that investment and conservation in this field will be crucial. At the same time, many developing countries will have to meet the challenge of international energy-saving advances in production technology, which tend to favour the location of industry in developed countries.[9]

Domestic processing of local raw materials

The replies to the questionnaire strongly emphasized the objective of the full utilization of natural resources. There are a few exceptions, such as Mauritius and Singapore that indicate their lack of locally available raw materials, in the high priority accorded by developing countries to the utilization and domestic processing of natural resources. Thus in India, domestic processing plays a central role in the national objective of self-reliance, which approach contemplates the creation of new focal points of industrial growth to be based essentially on the utilization of local materials: the investment allocations of the Sixth Plan are concentrated in a number of industries that utilize local natural resources, namely steel, cement, chemicals and textiles. For most countries, to encourage the processing of crude materials before exporting is an essential requirement for increasing the value added of local production and diversify exports. Countries such as Madagascar and Nigeria have defined local processing as a cardinal principle of their industrial policies.

In countries where fast industrial development has implied an increased dependence on imported inputs and the vulnerability of foreign accounts, self-reliance means principally import substitution. Thus in the last few years Brazil has strengthened the efforts launched in the mid-1970s to develop their own sources of basic and intermediate goods (National Basic Inputs Programme, a number of mineral processing sectors and more recently, emphasis on agro-industries). The high priority given by countries to industries that make the maximum use of local resources also reflects the increased awareness of the need to base industrial development on comparative advantages, and in this connection the replies also indicate, as in the case of Kenya, the backward-linkage effects of processing activities on the development of abundant agricultural and mineral resources. Another objective that has been clearly indicated by a number of countries, including Guatemala, India, Indonesia and Kenya, is the effect of processing activities on the decentralization of industry. India states that village and small industries are the major avenues for utilization and processing of local raw materials, and Indonesia has prepared programmes for the establishment of industrial growth centres for several regions to utilize to an optimum extent the available local materials, while Guatemala is looking for opportunities for investment in various parts of the country, with the objective of using local materials from the area in which the plants are located.

The policy options adopted by the developing countries for the promotion of local processing of raw materials vary significantly according to the different national contexts. Thus a number of replies reflect the general situation of many developing countries in which the mineral wealth is still insufficiently tapped, such as in the Bahamas, Burundi, Pakistan, Thailand and Togo that emphasize programmes for prospecting for raw materials for exploitation and processing. Yet in general, developing countries have already launched a combination of policies and measures for the promotion of domestic processing of natural resources.

Direct state participation. National ownership in the processing of certain natural resources, and particularly in the mineral industries, is one of the policy alternatives adopted by developing countries. Because of the overall role of the State in the economy (see below), the unwillingness of private investors to participate in processing ventures or other factors,[10/] the Governments of a number of reporting countries have set up their own corporations, eventually opened to minority participation of private capital. Thus in Brazil, Benin, Bolivia, Ecuador, Guyana, India, Indonesia, Mexico, Oman, Pakistan, Peru and Zaire, public enterprises have taken over the implementation of several projects for the processing of raw materials.

Licensing criteria, incentives and subsidies. Most developing countries have adopted inducement investment measures such as listing the priority industries according to the level of the utilization of local raw materials (Ecuador, Kenya, Oman), granting authorization or easier approval to new projects on the same basis (Cameroon, India), or graduating the kind of incentives (tax rebates, credits) offered by the industrial development laws or the export promotion laws (Bolivia, Madagascar, Mexico, Nigeria, Zaire).

Compulsory industrial integration and restriction of exports of unprocessed materials. Certain countries have established programmes of compulsory industrial integration and have restricted exports of unprocessed materials. For example, Tunisia applies higher taxation on the exports of crude raw materials and forbids the exportation of certain raw materials; and Turkey requires firms to increase the domestic components of their products in the course of production.

Provision of infrastructure. Several countries include, among promotional measures, the build-up of the necessary infrastructure facilities (Kenya, Upper Volta). In addition, a number of Governments have created public development corporations or entities with various attributions. For example, Forest Development Corporations have been set up in different regions of

India; the Pakistan Mineral Development Corporation has been established for carrying out comprehensive programmes for the utilization of mineral resources; and the Development Corporations of Ecuador and Guatemala are actively engaged in the analysis of projects in which they foresee possibilities of fabrication or export of processed goods.

Research and technological assistance. In order to enhance national technological competence, the Governments of a number of developing countries are encouraging research efforts on the development of technologies and products based on the utilization of local raw materials or promoting training programmes (Costa Rica, Kenya, Nigeria, Uruguay). Ambitious initiatives have been started in India - where research and development efforts in the field are being carried out by the various All-India Boards, organizations engaged in the field of village and small industries, and several scientific and technological councils - and in the Sudan, where a number of institutions are developing methods for utilizing local natural resources. However, self-reliant efforts are not seen as incompatible with the search for foreign technology suppliers, and to this purpose Honduras, Madagascar and Turkey indicate their interest in receiving international collaboration for their local industries.

Development and utilization of energy resources for industry

There is a general awareness on the part of Governments of the increasingly crucial role of energy as an essential input to all productive activities.

The persistence of the energy crisis in the last few years has stimulated several developing countries, either energy abundant or energy scarce, to undertake a number of strategies and policies to deal with the uncertainties of recent trends. Some countries seem to have moved already towards a systematic treatment of the problem. The Third Development Plan of Brazil - the main world importer of oil - has made energy one of the corner-stones of the national strategy for the next few years. The Brazilian Energy Model encompasses first, the intensive exploitation of domestic conventional energy resources, such as oil, coal and hydro-electrical power; secondly, a strict programme of energy conservation, and thirdly, the development of various alternatives, including alcohol and nuclear energy. The Sixth Five Year Plan of India, another large oil-importing country, has stipulated a similar multi-faceted strategy in this field. Other countries that have taken planning measures are Mexico (establishment of a National Energy Programme), China (planned exploration and research on new energy), Ecuador (hydro-carbons and electrification programmes); Ethiopia (creation of the Ethiopian National Energy Committee); Sudan (establishment of the Ministry of Energy and Mineral Resources), and Uruguay (creation of the Group for the Rationalization of Industrial Energy).

However, not all the developing countries have reached the stage of having a clearly defined or comprehensive energy strategy. For example, Thailand recognizes that, in spite of the huge recent increases of the importations of oil that account for more than one third of the country's budget, there is still no specific government agency dealing with energy, no energy production planning and no co-ordination between different official bodies. On the other hand, several countries, including Cameroon, El Salvador and Niger, report on projects or decisions to adopt energy plans in the near future. The measures being actively and simultaneously implemented on various fronts of the energy field are classified below.

Accelerated development and exploitation of domestic conventional sources of energy. Several replies stressed the objective of achieving self-sufficiency in oil production and the supply of oil products, which are the most effective energy sources for developing countries[11] and confirmed that in the last few years many developing countries have substantially increased crude output, started to drill or found oil.[12] Among the responding countries, Brazil, Cameroon, India, Pakistan, Romania and Turkey have expanded their programmes of oil exploration in order to reduce their dependence on imports. For example, Pakistan is carrying out a programme of oil and gas exploration both in the public sector, by the Oil and Gas Development Corporation, and in the private sector through joint ventures with foreign oil companies; in Turkey, it was decided to re-open all fields where explorations were previously found to be economical. Several other countries have entered into world oil production since 1978 (Guatemala, Togo, Zaire) while others are taking their first steps in that direction (Benin, Niger, Sudan).

With regard to other conventional sources, the most widespread field of interest seems to be hydro-electricity. About half of the responses explicitly pointed out the high priority accorded to the development of this source of energy, including oil-rich countries, such as Iraq, where steps have been taken to utilize waterfalls to generate electric power. Yet a good share of the replies emphasized programmes for increasing the production of coal through development of deposits and expansion of the existing mines (Brazil, China, India, Indonesia, Madagascar, Niger, Pakistan, Romania, Zimbabwe).

Energy conservation. Conservation, rationalization and effective utilization of non-renewable energy sources was also emphasized by respondent countries. Since the mid-1970s the developing countries' demand for imports of oil-based products has been slowing noticeably,[12] and to some extent this trend may be explained by saving measures adopted by the Governments. Many of them report a further strengthening of such measures; for example, Thailand proposes to decrease the quantity of oil importation at a rate of 3 per cent per annum within the present Five Year Plan. In Brazil, a combination of high gasoline prices and incentives to switch from oil to other sources is having a certain success. On the other hand, Indonesia has adopted a number of programmes to intensify the optimal use of oil and gas, including research, development and training, networks of transmission and distribution, etc.; the Group for the Rationalization of Industrial Energy in Uruguay is supporting technological solutions designed to save energy and use it more efficiently in industry; and Senegal emphasizes the more rational use of available energy by controlling energy wastage.

Diversification. Developing countries stressed the development of new sources of energy, with the common objective of maximizing domestic energy resources and reducing the dependence on oil, either imported or locally produced.

Virtually all countries, even the oil-exporting ones, were interested in alternative sources. Some reported efforts or plans to produce alcohol from sugar cane, manioc or other locally abundant resources (Brazil and its massive Proalcool Programme, Costa Rica, Kenya, Madagascar, Malawi, Mauritius, Zimbabwe), and to intensify the exploration for and exploitation of other renewable sources such as forestry and bio-gas and solar and wind power. For example, the Government of Burundi expects to meet 15 per cent of its electricity needs by the year 2000 with such alternative sources. Geothermal activities or studies are being carried out in Comoros, El Salvador, Ethiopia, India, Romania and Zimbabwe. Despite its oil surpluses, Iraq has established research centres for the utilization of solar energy. Finally, a few of the more advanced developing countries, such as Brazil, China, India, Romania, and the Repuublic of Korea, have advanced projects to develop nuclear energy and introduce it into the productive circuit.

In energy-importing countries, diversification efforts also take the form of increasing the number and geographical origin of sources of supply, such as in Brazil, India, the Republic of Korea and Singapore. These countries have also, in the search for more stable supply sources, promoted overseas resource development in other developing countries.

Social objectives

The Lima Plan of Action emphasized the equitable distribution of benefits as one of the main objectives of industrialization in order to eliminate social disadvantages and unemployment; and stated that attention should be paid to the problem of rural exodus, the support of small- and medium-scale industries and the full integration of women into the productive process. UNIDO requested the developing countries to provide information on the measures taken to secure such objectives.

Employment

The questions of employment opportunities and equitable distribution of the benefits of industrialization are present in most of the development plans and strategies of the developing countries. These countries continue to suffer very high rates of unemployment and under-employment so the generation of working opportunities for the utilization of the available human resources is of central concern. In this respect, the available statistics indicate that, although there is a significant gap between the growth of employment in industry and the rate of increase of production, manufacturing employment has been growing more rapidly than the total labour force.13/ Thus most countries continue to view industrialization as an important source of employment. In this respect, the statistical information supplied by a third of the responding countries shows that (with the sole exception of Turkey) the manufacturing sector has significantly increased employment in the 1975-1980 period, although in at least three cases (India, Republic of Korea, and Thailand), the employment in industry declined in 1980.

Although the replies have not elaborated on the policies and instruments applied to increase employment levels several countries (e.g. Burundi, Upper Volta and Zaire) stress the expansion of labour-intensive industries; the widest possible utilization of human resources (Romania); or the promotion of activities requiring a high degree of skill (e.g. Singapore and the Sudan). Labour training is being actively pursued in most developing countries (see chapter 3), moreover, several of the many countries that are promoting small and medium-sized enterprises are taking into account the labour-intensive nature of these firms. Still another alternative for employment generation through macro-economic techniques was indicated by Chile, which referred to its policy of increasing the cost of local capital.

Support of small and medium-sized enterprises

The promotion of smaller industries and firms is included among the policies adopted by a large number of countries as reported by Honduras, India, Malaysia, Mexico, Nigeria, Pakistan, Republic of Korea, Senegal, Sudan and Uruguay. Such policies reflect, however, different objectives according to the countries concerned. As already mentioned, small and medium-sized firms are often promoted because of their higher labour intensiveness. In some cases, they may be valued as a way to prevent the structuring of monopolistic markets or excessively concentrated sectors (e.g. India, Mexico and the Republic of Korea). In other cases (e.g. India, Nigeria, Pakistan, Senegal, Sudan), the support of smaller firms is clearly related to the objective of developing rural or non-industrialized areas of the country, with the additional aim of controlling the exodus from rural areas and expanding the benefits of industrialization to them. For example, India provides assistance to develop small industries in mountain areas. The experience of this country and of Indonesia offers another interesting example of promotional policies in the exclusive reservation of certain activities or promotion incentives for smaller firms.

Industrial deconcentration

Apart from the direct and indirect effects of the policies promoting smaller enterprises, several countries make special efforts to localize agro-industries in rural areas. Yet the broad objective of geographical decentralization is mentioned as an important means of achieving a balanced industrial development by many countries including Bolivia, Brazil, Burundi, Cameroon, Costa Rica, Ecuador, El Salvador, Ethiopia, Guatemala, Honduras, India, Iraq, Kenya, Malawi, Mexico, Oman, Thailand, Tunisia, Turkey, Upper Volta and Uruguay. To that end, most Governments have adopted programmes and policies to aid and encourage, through the creation of new industrial estates and the provision of fiscal and financial incentives of different kinds, the settlement of industries away from the main urban centres. For example, after 1980 the Government of India is offering a package of concessions to industrial units located in selected backward areas, including financial assistance, investment subsidies, transport subsidies, tax incentives, liberal import facilities etc.; and the current Kenyan development plan stipulated a number of incentives for the spatial dispersion of industries, such as differential investment allowances, equity and loan participation by the Government, and the establishment of industrial estates. Also in this context, several replies report on programmes and measures taken to expand or improve the national infrastructure of general services, such as water, electricity and gas. For example, gas and electricity services are being extended to rural areas in Guyana, and to all capital districts in Togo.

Provision of essential goods

Several countries indicate their efforts to ensure that all sectors of the population, and in particular the poorest segments, have access to goods for mass consumption. Beyond the policies mentioned in a previous section on the production in adequate volume and quality of essential goods, various replies report on measures taken to facilitate their distribution among the social sectors and in various areas of the country. For example, Ethiopia refers to the rationalization of distribution services, the direct supply of basic goods by the Government to remote areas, and the priority granted to the distribution to rural and urban mass organizations. Another way of dealing with this question is the policy of price controls that is reported by countries such as Ecuador, Malawi, Mexico and Togo as aimed at ensuring the general access to mass consumption goods. Similarly, some countries (Brazil, Iraq, Malta, Tunisia) refer to their policies of minimum salaries or periodic wage increases as aimed at preserving or increasing the purchasing power of the population. Brazil expressly indicates its policy to narrow existing salary differentials.

Environmental protection

Concern about the control of industrial pollution is expressed by a few developing countries, notably the Bahamas and Malawi, which mention that action has been taken with that purpose.

Workers participation

A number of countries refer, in distribution-related policies, to certain measures tending to promote the participation of workers in the ownership or management of industrial enterprises. In this connection, the reply from Costa Rica mentions "new forms of industrial ownership, based on the concept of human development and popular participation"; Peru refers to a policy started in 1970 that considers the industrial sector as one of the main targets for social reforms such as the participation of workers in the ownership and management of private enterprises; and Madagascar is following a policy on the participation of workers in the direction of "socialist enterprises".

Integration of women

The integration of women in the process of industrialization is an aspect to which the Lima Declaration and Plan of Action devotes special attention. Yet only a few countries have reported on the current situation of female employment in industry or on any measures taken to promote a more equitable participation of women in the sector. A significant number of replies simply state that there is no differentiation or discrimination in the treatment of women; others believe that women benefit from the general policies being implemented for industrial development and welfare, so that no specific measures in their regard have been taken. Mauritius says that no particular measures are necessary since first-line management is almost exclusively female and administrative positions in factories are filled to a large extent by women. However, a number of countries report certain special programmes or actions aimed at increasing the employment of women and of preserving their jobs after marriage. Among the most significant is the development plan for women for the period 1982-1986 adopted in Thailand, which has a principal target of increasing the employment of women and expanding their education and training. In Zaire, the National Secretariat for the Status of Women has been established. El Salvador, Guyana and Panama indicate that industrial activities utilizing a high share of women are being promoted, and Honduras mentions incentives granted to enterprises that create employment for women in urban areas. Singapore (where the share of women in total employment in industry increased from 39.5 per cent in 1975 to 46 per cent in 1980) has set up a special tax system for married women (especially the professionals), with the aim of preserving their position in the labour market after marriage.

Finally, a number of countries have adopted measures for facilitating the access of women to education and training services. For example, Tunisia has established compulsory education for girls and created centres of vocational orientation for them. Panama has eliminated a number of barriers to the access of women to the National University, and the Technological University has been created without technical obstacles for the participation of women. In the Republic of Korea, the Government is providing strong support to new opportunities for high-level studies and labour training for women. Bolivia refers to a policy of general training of women as an important factor for the socio-economic development process. The replies from Costa Rica, Ecuador, El Salvador, India, Indonesia, Romania and Upper Volta also refer to training programmes explicitly or implicitly dedicated to women (see chapter III, under the sub-head "Human resources development" below).

Role of the public sector

In the Lima and New Delhi Declarations and Plans of Action, State intervention is viewed as a necessary instrument of development policy: the State should have an adequate role in the direction of industrial development, the expansion of industries and the promotion and implementation of policies and regulations for the sector, particularly to aspects such as the control and utilization of natural resources, the supervision and promotion of foreign investment and transfer of technology, the regulation of foreign trade, the development of financial resources, and research institutions etc.

For the purpose of the present monitoring exercise, countries were asked to describe the role accorded to the public and private sectors in relation to the national development plans. They were also requested to provide information on the contribution of public enterprises (meaning those with more than 50 per cent government ownership) to manufacturing value-added (MVA) and employment. Although definite conclusions cannot be drawn because the data obtained is incomplete, the information reported for this exercise by 19 countries (see table 5) shows the importance achieved by the public sector in the industries of both the least developed and the more advanced of the developing countries. The figures indicate a wide variation with respect to both variables. The contribution to value added ranges from 2.8 per cent in Uruguay and 6 per cent in Burundi to from 14 to 19 per cent in Panama, India and Pakistan and, at the other extreme, 95 per cent in Ethiopia and Romania. Concerning employment in manufacturing, the variations are also wide: 1.9 per cent in Chile, 3.8 per cent in Brazil, 14 per cent in Pakistan, 39 per cent in Sudan, 44.5 per cent in Upper Volta, 78.7 per cent in Romania, 88 per cent in Ethiopia. For a few countries table 5 also shows the trends in these shares. The high shares of the public sector in countries such as Ethiopia and Romania are obviously explained by the approach to development chosen by these countries; this also explains the low shares registered in Chile and Uruguay, which are a consequence of a deliberate process of reduction of the State's participation. Yet, it is also interesting to note the significance of the public sector (either in terms of value added or employment) in some of the less advanced countries such as Burundi (70 per cent of employment in manufacturing), Sudan (39 per cent of employment), Upper Volta (43-45 per cent for both indicators) or Tunisia (40 per cent of value added). In these countries the high participation of the State seems to reflect more the urgency of socio-economic needs, as well as the lack of private initiatives in the very early stages of industrialization, than any particular political philosophy.

Table 5. Share of public manufacturing enterprises in total manufacturing value added (MVA) and share of manufacturing in total employment

Country	Share in MVA		Share of manufacturing in total employment	
	Year	%	Year	%
Argentina	1980	8.2	1980	4.4
Bangladesh	1978/79	69.0	1978/79	77.0
Bolivia	1980	24.0	1980	4.2
Brazil	1980	10.5	1980	3.8
Burundi	1979	6.0	1979	70.0
	1985 a/	13.0	1985 a/	41.0
Chile	1979	8.8	1979	1.9
Ethiopia	1978/79	94.5	1978/79	88.0
Guyana	1970	14.0	...	...
	1980	66.0	...	...
India	1978	15.7	...	...
Kenya	...	...	1979	19.0
Pakistan	1980/81	18.0	1980/81	14.0
Panama	1979	13.8	1979	10.1
	1985 a/	21.89	1985 a/	12.8
Peru	1979	13.0	1979	2.6
Romania	1980	94.0	1980	78.7
	1982 a/	94.4	1982 a/	76.5
Sudan	...	...	1979/80	39.0
Tunisia	1979	40.0	...	...
	1980	40.0	...	...
Upper Volta	1979	43.46	1979	44.5
Uruguay	1980	2.8	1980	4.2
Venezuela	1980	9.0	1980	3.3

a/ Planned.

The present participation of the public sector in industrial activities does not necessarily represent or define the kind of policies pursued currently in each country. Table 5 shows some cases in which such participation is expected to increase (Burundi and Panama); other countries (Pakistan and Turkey) have revealed the desire to diminish such participation, a task that is difficult to achieve owing to social and economic constraints. On the whole, developing countries show a tendency towards a greater role for the public industrial sector, explained by a number of factors: structural problems such as unemployment, inflation and unbalanced development; political criteria regarding national control over certain activities; promotional objectives such as technological development, training, export promotion and mobilization of financial resources.14/

The replies illuminate a trend already mentioned in this report as characteristic of a recent stage of the industrialization process: the increasing diversification and complexity of the attitudes and policies of Governments, in this case with regard to their own role in the national economy. The three main broad observations that emerge from the replies are: first, a clearer distinction is being made between the various roles of the State as a regulatory institution, a supplier of infrastructural inputs and a direct participant in productive activities; secondly, greater emphasis is being put on the efficiency and selectivity of state intervention and participation, which in many countries means an emphasis on deregulation and the relaxation of certain public controls; and thirdly, a clearer demarcation of sectors in which the respective contributions of public and private sectors is established or promoted. These three observations are dealt with in detail below.

Definition of the State's functions

The first observation is that virtually all countries consider the role of the State in the industrialization process to be important, although there are strong differences on the scope, intensity, areas and ways of government intervention. Only a few among the reporting countries assign a commanding role to the State in the industrial sector. They include, apart from the centrally planned economies (China, Romania and Yugoslavia), countries in which such a role is explained by the desire to promote rapid growth from a virtually non-existent industrial base in the context of a self-reliant approach (Benin, Ethiopia, Iraq, Madagascar). In these countries private industry plays a minor role, in general limited to the small-scale sector (Iraq), although private foreign investments are allowed under certain conditions, and even encouraged (Benin). To a certain extent, the strategy of some countries includes elements that traditionally belong to this approach. For example, although the basic strategy of India recognizes a mixed economy, it also recognizes that it will be one of the goals of the state policy to expand the public sector so that it progressively assumes a predominant role. Yet other aspects of the diversified Indian policies place this country in a more flexible position regarding the role of the State.

Most replies view the role of the State as the main agent for the promotion of industrial development, including both its active intervention and its direct participation in industrial activities, but accord also an important contribution to the private sector. A great variation can be observed within this grouping, ranging from countries where a large number of important sectors is reserved to government ownership (India, Guyana, Mexico, Pakistan) to other countries, the majority, that emphasize the complementarity of the roles of the public and private sectors, with the former providing an adequate framework of control and incentives and the latter being called to take initiatives in all sectors but those explicitly reserved to the State for strategic reasons or considerations of national interest (Bolivia, Costa Rica, Guatemala, Honduras, Kenya, Niger, Nigeria, Panama, Peru, Republic of Korea, Senegal, Sri Lanka, Sudan, Thailand and Tunisia), and finally to countries in which state intervention is essentially limited to securing a favourable environment for the private sector (Malta, Togo, United Republic of Cameroon and Zimbabwe) or providing infrastructural facilities (Burundi, Mauritius, Oman and Zaire). There are, however, important nuances in certain national strategies resulting from recent trends. For example, in their replies Pakistan and the Republic of Korea, two countries with a comparatively high record of government intervention, indicated their willingness to promote a substantial increase of private sector participation, while others, such as Guatemala and Oman, where the state presence in industry has been historically weak, state their intention to increase it (including government ownership), albeit for promotional purposes.

A third group of countries have strongly stated the subsidiary role of the State in the manufacturing industry (Chile, Cyprus, Malawi, Singapore, Uruguay). In the case of Chile, this was defined in terms of the State assuming only those functions that private initiative, to which is assigned a predominant role in industrial production, is not in a position to fulfil properly. In Singapore, the role of the Government is essentially supportive: the aim is that the provision of certain facilities and incentives, as well as the economic and political ability of the country, will guide private investors into priority sectors. And Cyprus, Malawi and Uruguay have also given high priority to the private sector, emphasizing the supportive role of the State.

Efficiency

The second important point emerging from the replies is the concern of many countries to improve the efficiency of the public sector. Such a trend takes two forms. First, certain countries are making efforts to improve the performance of public sector enterprises and to rationalize government controls over the private sector. For example, since mid-1980 the industrial policy of India has stressed the need to improve operational systems of management in the public sector's undertakings. The productivity of the main infrastructure sectors (coal, power, railways) received urgent attention and was steadily increased as a result. In addition, the existing system of licensing and registration of industrial projects has been liberalized with the purpose of encouraging the private sector. Similarly, in Sri Lanka the present policy seeks to create an "efficient and non-corrupt public sector" and to remove unnecessary constraints and cumbersome administrative procedures in the industrial development policy. In Pakistan, a demarcation has been made between the private and public sectors in respect of certain categories of industries. Since the late 1970s, the industrial regulations of countries such as Nigeria, Peru and Thailand have been revised and made more flexible with the purpose of stimulating investment.

Secondly, some seem to want more than an improvement in performance, they state the need for a profound liberalization of existing government controls with the declared purpose of stimulating the free play of the market forces. Chile, Uruguay, Republic of Korea and Turkey, with varying emphasis that is stronger in the first two cases, have recently engaged in a substantial reduction of government intervention in the economy. It is premature to evaluate the prospects of such an approach, which in some cases seems to be influenced by certain theories of economic policies current in international circles.

Sectoral participation

The third general observation concerns the sectoral scope of direct participation by Governments in the industrial sector. Although the questionnaire did not ask for detailed information on the industrial branches in which the public sector is involved, the replies illustrated an emerging pattern of state participation. From this viewpoint, the reporting countries can be classified into four broad categories:

(a) Countries in which the global organization of the economy implies participation of the State in virtually all industrial sectors (Benin, China, Ethiopia, Iraq, Madagascar, Romania, Yugoslavia), but where, in some cases, light industries are open to private investors and in most cases, private foreign investment is allowed and even encouraged to co-operate in joint ventures with the Government;

(b) Countries in which the Government has established a formal demarcation of industries reserved to the public sector and those open to the private sector: India, which reserves to the State all industries of basic and strategic significance and establishes a broad residual category in which the private sector is encouraged; Mexico, which has set up a list of industries based on natural resources and heavy industries where government majority ownership is required; Ecuador, which reserves strategic industries for the State (foundry, petrochemicals, cement and automotive); Pakistan, where in principle the reservation involves all basic and heavy industries; and Peru, where the public sector concentrates on the industries with a high degree of forward and backward linkages;

(c) Countries in which there is in general no formal demarcation of industries between the public and private sectors, but where there is a *de facto* pattern of State concentration of activities considered of national interest or strategic importance, generally involving basic, large-scale and heavy industries (Indonesia, Republic of Korea, Sri Lanka) and national resources (Bahamas, Bolivia, Guyana, Nigeria), or where Governments have reserved their right to participate in strategic sectors for reasons of public interest (Honduras, Togo, Zimbabwe). Some replies stated the willingness of Governments to take over some industrial activities on a temporary basis in order to encourage certain branches (Guatemala, Thailand);

(d) Countries in which the entrepreneurial role of the State is limited to the development and operation of the basic infrastructure of industrial services such as transport and electricity (Cameroon, Costa Rica, Mauritius, Oman).

To summarize, a review of the present trends shows significant differences in the approaches of the different countries with regard to the role of the public sector. For example, while some advanced developing countries are now attempting to limit the involvement of Governments in the economy, many poorer nations are still in the first stage of the process of building up their industrial development infrastructure, which implies a strong and increasing commitment of the State. There is however a general move towards an increased rationality and selectivity of government intervention, which in part is explained by the current balance-of-payment problems and public deficits of many developing countries. A re-evaluation of the contribution that could be expected from the private sector, especially from domestic enterprises, is noticeable in several countries. Yet the emphasis on efficiency implies an expanded role of the State in areas that are difficult to serve by market forces, and are of increasing importance as industrialization advances: such areas include the treatment of foreign investment, the development and transfer of technology, the development of financial resources, and the promotion of exports.

Policies for foreign investment and transnational corporations

In the Lima and New Delhi Plans of Action, developing countries are called on to adopt elaborate measures by which foreign investment, in particular by transnational corporations, could be effectively used in order to achieve the objectives of national development plans, by the establishment and strengthening of machinery and institutions to regulate, supervise and promote the transfer of external resources. The replies from developing countries describe the policies on this issue, including information on the laws and regulations, the criteria of evaluation, and the industrial activities in which foreign investment is expected to participate.

As with other issues of this report, the material collected shows significant differences between national policies with regard to entry conditions, criteria of evaluation, and standards of treatment and performance, as analysed below.

Basic approaches to entry of foreign investments

Open-door policies

About 30 per cent of the responding countries have open-door policies characterized by the freedom of entry of foreign investments, absence of significant sectoral restrictions, ownership limitations and strict evaluation criteria. Over half of these countries are in Africa (Burundi, Cameroon, Comoros, Malta, Mauritius, Senegal, Sudan, Togo, Zaire); the others include five Latin-American countries (traditionally liberal Costa Rica, El Salvador, Panama and Uruguay; and Chile, which since 1973 has drastically liberalized its foreign investment policy); and Cyprus, Singapore and Turkey, which welcome transnationals without fixed rules and conditions. Yet some of these countries have adopted investment codes that set up the basic procedures and incentives accorded by Governments.

No admittance

It is hard to find at present examples of policies that prohibit the entry of foreign investments. Only Iraq reports that foreign investments are not allowed. Even Governments of centrally planned economies, for example China, Romania and Yugoslavia, have indicated their willingness to host international investments under the modalities admitted in their legal systems.

Controlled entry

Most countries have adopted balanced policies vis-à-vis the entry of transnational corporations, characterized by a mix of controls and incentives. The approaches vary from an attitude of selective admittance to one encouraging foreign investments but with conditions.

Selective admittance. In countries that have adopted strong self-reliant strategies, for example Ethiopia and Madagascar, the principle is to rely on their own resources, except for priority projects whose execution exceeds local capacitites, in which cases Governments may consider foreign investments on a case-by-case basis. Similarly in Guyana, foreign investment is barred from strategic sectors of the economy, but is allowed in other activities on a joint-venture basis. To a certain extent, the reply from India can be classified in this category owing to the traditional emphasis India puts on self-reliant objectives reflected in a highly selective policy on foreign investments. That policy makes an essential condition their participation in critical areas where technology and marketing gaps must be satisfied, and the acceptance of the principle of local ownership participation. Yet in other respects India can also be included in the following group.

Regulated entry. Several developing countries, particularly the largest and most rapidly industrializing, have adopted elaborate legal or policy frameworks and institutional machineries to deal with the evaluation, authorization, registration and screening of foreign investment proposals. Foreign investments are not only admitted, but also selectively encouraged in certain sectors or for certain reasons such as technology acquisition and development of export markets. In most cases there is a list of industrial activities closed or restricted to foreign investors, and joint ventures with local partners are usually required with varying intensities and performance requirements such as export commitments. Among the reporting countries the cases of Brazil, Ecuador, Indonesia, Mexico, Nigeria, Peru, Republic of Korea, Thailand and, as above-mentioned, India, fit well into this category, although account must be taken of certain recent trends in this respect. For example, Thailand still has an open-door regime, but its Industrial Development Plan for 1982-1986 stipulates the establishment of a machinery with powers to promote, select, register and control foreign investments based on a list of restricted sectors and requirements of local participation. On the other hand, the Government of the Republic of Korea has stressed its new policy to further expand the access of foreign investors to a number of sectors that have been closed or restricted in the past.

Conditional attraction. A large group of developing countries, most of them of small-to-medium sized economies in the early stages of industrialization, are characterized by a basically encouraging attitude vis-à-vis foreign investments reflected in relatively soft legal requirements - in comparison to the previous group of countries. Their emphasis is on incentives rather than on controls. Still they are not easily comparable to the open-door countries as long as they maintain certain reservations and conditions with regard to the entry of foreign investments. Such criteria are usually related to local ownership requirements: Tunisia; Upper Volta, requiring 51 per cent national majority in priority sectors; Oman, 35 per cent of the shares must be in local hands; Malta, where the long-term strategy is to set up locally conceived, owned and controlled industrial projects; and Zimbabwe, which prefers joint ventures; or they can be based on sectoral restrictions (Bolivia, Benin, Niger) or certain fundamental policy strategies: for example, in Guatemala and Pakistan the policy is not to accept or to encourage foreign investments in sectors adequately served by existing national capacities.

Contributions expected from transnational corporations

There is a general consensus in most replies with respect to the contributions to the national economy that are expected from the participation of foreign firms. With regard to the type of productive resources transferred, the emphasis is no longer on financial resources (although in some cases, activities are mentioned that are beyond local capacity and that may involve the capital contributions of foreign firms), but rather on technology transfer. Some among the more advanced developing countries emphasize the level of sophistication or novelty of the technology as an important criteria of admission or evaluation (India, Indonesia, Pakistan, Singapore). Other countries, particularly the less advanced, refer to the contribution of foreign investments to local employment through labour-intensive techniques (Bolivia, Costa Rica, Ecuador, Kenya). Regarding the trade contribution of the foreign investments, a significant number of countries of all sizes and development levels stress the export potential of transnational corporations in line with the already mentioned trends of the present national industrial strategies. The crucial importance of technology transfer in exports is apparent from the exceptions that certain control-oriented countries, for example, Brazil, India and Mexico, make to general requirements, such as local ownership participation.

As already mentioned, a number of developing countries have lists of industries in which foreign investment is in principle not allowed or allowed only in joint-venture form (Bahamas, Brazil, India, Indonesia, Kenya, Mexico, Nigeria, Pakistan, Peru and Republic of Korea *inter alia*). Instead of requesting further information on such restricted areas, the questionnaire asked about the industrial branches in which foreign investments are planned or expected, regardless of the legal conditions for their reception. The responses of a number of countries to this question, although not always comparable, are presented in table 6. The responses show that, in general, foreign investments are expected to go to industries that have priority in the industrial development plans. A large number of countries welcome foreign collaboration in agro-related branches, particularly for the production of food, but also for the supply of agricultural machinery. The exploitation of natural resources (including oil, mining, forestry, fishery) is emphasized, which in several countries, owing to the public sector role in such sectors (see previous section), means that foreign investments are expected in joint-venture form (for example, Ecuador, Guyana, Indonesia). By contrast, the lack of emphasis on textiles may reflect the existence of national capabilities in such traditional sectors in many developing countries. A significant share of replies, coming from the most varied countries, indicates the capital goods sector, including machine tools and light engineering branches (Bolivia, Cameroon, Ecuador, Honduras, Indonesia, Kenya, Malta, Mexico, Nigeria, Panama, Thailand and Tunisia); heavy equipment (Madagascar, Mexico, Peru and Republic of Korea) and electronics (Malta, Mauritius, Mexico, Nigeria, Pakistan, Panama, Republic of Korea, Sri Lanka and Thailand). In most of the less advanced countries that have also referred to capital goods, the purpose is to promote export-processing and assembly activities in which transnational corporations are expected to play a major role. In this

Table 6. Distribution of industrial branches in which direct foreign investment is planned or expected [a]

Country	Food, beverages and tobacco (ISIC 31)	Textile, wearing apparel and leather industries (ISIC 32)	Wood and wood products, including furniture (ISIC 33)	Paper and paper products, printing and publishing (ISIC 34)	Chemicals and chemical, petroleum, coal, rubber and plastic products (ISIC 35)	Non-metallic mineral products, except products of petroleum and coal (ISIC 36)	Basic metal industries (ISIC 37)	Fabricated metal products, machinery and equipment (ISIC 38)	Other manufacturing industries (ISIC 39)
Benin	x				x	x	x	x	
Bolivia	x				x		x	x	
Chile	x		x			x			
Costa Rica	x				x			x	
Ecuador	x						x	x	
El Salvador	x								
Ethiopia	x	x			x	x	x		
Guyana	x		x			x			
Honduras	x		x	x	x			x	
Indonesia	x	x	x	x	x			x	x
Kenya	x	x			x	x		x	
Lesotho	x	x			x	x		x	
Madagascar						x		x	
Malta								x	
Mauritius								x	
Mexico					x			x	
Niger	x					x			
Nigeria	x					x		x	
Pakistan	x					x		x	
Panama			x				x	x	
Peru	x	x						x	
Rep. of Korea							x	x	
Sri Lanka	x					x	x	x	
Sudan		x			x				
Thailand	x	x		x	x	x	x	x	
Togo	x								
Tunisia								x	
United Rep. of Cameroon	x				x			x	
Upper Volta	x						x	x	
Venezuela			x		x				
Zimbabwe					x		x	x	

[a] Industrial branches in which direct foreign investment is planned or desired or in which production capacity could be expanded as a result of redeployment from more advanced countries.

connection, developing countries consider important certain UNIDO activities geared to facilitate an increased flow of investments from developed countries. Several replies mentioned the need to strengthen the System of Consultations, and the investment promotion services of UNIDO by providing effective advice and assistance in the negotiation of investment projects, expanding the dissemination of information on investment opportunities to more developing countries, encouraging the regionalization of Consultations and increasing assistance to local centres of industrial promotion in developing countries through training activities, market studies etc.

Treatment of foreign investments

The last observation concerns the treatment of foreign investment projects in national policies. At present there are a few countries that do not have a specific legal framework dealing with foreign investments (Guatemala, Panama, Turkey). Several countries have recently adopted investment codes (China, Guyana, Nigeria, Pakistan, Sudan, Yugoslavia, Zaire) or are planning to enact one soon (Costa Rica, Ethiopia, Senegal, Thailand). In some countries (for example, Benin) the investment code is applicable to both domestic and foreign investors.

About 70 per cent of the replies from Governments indicate that foreign enterprises receive national treatment, or no discrimination vis-à-vis nationally owned enterprises (aside from the existing sectoral restrictions and joint-venture policies) with regard to taxes, access to credits etc. Indeed, in some countries foreign investors seen to enjoy exclusive advantages (Cyprus, Malawi, Zaire). A large number of countries also mention the complete freedom of repatriation and remittances as a special advantage. In other developing countries, particularly among the control-oriented systems, national enterprises enjoy preferential treatment that is not applicable to foreign enterprises or to those with foreign majority participation (Brazil, Ecuador, Indonesia, Mexico, Peru). However, there is a trend to make the rules of foreign investment more flexible. This is visible not only in certain centrally planned economies (China, Yugoslavia) that are gradually opening to foreign investment, but also in a number of developing countries that have been applying relatively strict regulations during the last decade. For example, administrative proceedings and remittance ceilings have been relaxed in Ecuador, India, Peru, and entry restrictions have been gradually lifted in Nigeria and Republic of Korea, while in other countries, such as Chile and Pakistan, the liberalization of foreign investment regulations is the result of substantial changes introduced in overall economic policies.

The main patterns and trends for this section are summarized below.

First, there seems to be virtually no country in which foreign investments are not admitted, albeit subject to certain restrictions. Furthermore, most developing countries are interested in receiving the contribution of transnational corporations, especially for the development of the priority industries.

Secondly, there is a definite trend towards the establishment of legal and institutional frameworks for dealing with foreign investments. Although started in the early 1970s, this trend has been noticeably expanding in the last three to four years among a large number of countries.

Thirdly, the most common policy approach at present is a mix of controls on entry and performance of transnational corporations, with incentives and advantages based on increasingly detailed criteria of evaluation. Such criteria emphasize the technological contribution of the transnational corporation and its terms and conditions, the export potential offered by foreign investors, and the extent of local participation in the form of joint ventures.

Fourthly, a significant share of countries, particularly among the most advanced of developing countries, and having more legal and administrative experience in dealing with transnational corporations, have recently made their regulations more flexible.

II. INDUSTRIAL RESTRUCTURING IN DEVELOPED COUNTRIES, AND REDEPLOYMENT OF PRODUCTION CAPACITIES TO DEVELOPING COUNTRIES

The Declaration and the Programme of Action on the Establishment of a New International Economic Order (General Assembly resolutions 3201(S-VI) and 3202(S-VI)) states that every effort should be made to encourage the industrialization of developing countries. Accordingly, the Lima Plan of Action[15/] urged developed countries to adopt measures in trade, finance, technology and investment, with the aim of increasing the share of developing countries in world industrial production. The achievement of such objectives will require changes in the economic policies of developed countries.

The New Delhi Conference expressed concern at the slow progress achieved in the implementation of such policy changes, and emphasized several aspects of the Lima Plan of Action with regard to the role of developed countries. One crucial measure to be adopted by developed countries, as defined in the International Development Strategy for the Third United Nations Development Decade,[16/] is the creation of new industrial capacities in developing countries and the redeployment of industry on the principle of comparative advantages in conjunction with structural adjustment.

The New Delhi Plan of Action[17/] also reaffirmed the importance of the System of Consultations as a means of encouraging the redeployment process.

The UNIDO questionnaire asked developed countries their views on the role of industrialization, taking into account the above-mentioned factors, and what they considered were the possible areas of international co-operation for supporting such objectives. They were also requested to provide detailed information on policies and measures being taken to encourage structural adjustment and in particular, to promote industrial co-operation in establishing production capacities in developing countries. The replies received from the developed countries on such subjects are analysed below.

Views on the role of industrialization in developing countries

The attitude of developed countries on the role of industrialization in developing countries is virtually the same as was expressed in the second monitoring exercise: developed countries agree on the importance of industrialization as an instrument for the economic development of developing countries. Even the reply from Belgium, which states that the first priority of developing countries should be the development of agriculture, admits that it is for many of them an essential element in their development. Yet most developed countries are of the opinion that primary responsibility for industrialization rests with developing countries, and several replies indicate the kind of economic and social reforms that developing countries should undertake. The views of certain developed countries on this matter are given below.

The Federal Republic of Germany considers such eforms should eliminate domestic constraints that hold down purchasing power and industrial development, including misguided economic policies giving rise to inflation, unjust distribution of income and wealth, tax injustices and a failure to introduce land reforms. Italy believes that developing countries should start new rationalization programmes in specific branches, taking into account changes in the international division of labour; increase the competitiveness of industrial productions in terms of costs, quality and value added; and encourage the transfer of foreign capital and technology. The United Kingdom of Great Britian and Northern Ireland expressed the opinion that the process of industrialization in the third world will advance most rapidly on the basis of natural comparative advantages in an open-trading system providing the right investment climate. Belgium indicates that it would be a serious error on the part of developing countries to try to export to distant markets instead of satisfying the national and regional demands. On the other hand, the report from the Union of Soviet Socialist Republics emphasizes the development of a rationally planned national economic base and a powerful state sector; the implementation of progressive social and economic reforms; the consolidation of national sovereignty over natural resources; the effective control over transnational corporations; the promotion of a national scientific and technical potential; and horizontal co-operation on a regional, bilateral and multilateral basis.

Some developed countries express their total agreement with the crucial role to be played by international co-operation in the industrialization of developing countries. For Austria, Canada, Denmark, Finland and Ireland, appropriate means should be found among developed countries to intensify and accelerate such efforts. For Czechoslovakia and Hungary (which call attention to the advantages of central planning and state trading monopolies for co-operation with developing countries), such co-operation is an important element of national policies on the international division of labour. The view of the Federal Republic of Germany is that for developing countries to progress a revival of the world economy is crucial, which is dependent on contributions by both industrial and developing countries. On the other hand, several replies emphasize the criteria of paying particular, if not foremost, attention to the least developed of the developing countries or the poorest sectors of the populations of developing countries (see chapter IV).

In identifying areas and channels of co-operation several methods were mentioned. The need to develop the technical infrastructure of developing countries was stressed. Thus, according to Austria and Italy, technical assistance and training programmes should receive priority, which, as pointed out by Belgium, should include efforts in organization and marketing. The replies of Hungary and the Soviet Union gave information on the areas in and methods by which such technical assistance is being provided by these countries.

Other developed countries emphasize the role of private investments. Those from Federal Republic of Germany, Switzerland and United Kingdom consider the private sector an essential element for promoting industrialization in developing countries. In this connection, a few countries (Federal Republic of Germany, Norway and Switzerland) support the adoption of codes of conduct for transnational corporations and technology transfer. In addition, Italy mentions the efforts of public sector institutions that concentrate their initiatives in those regions that are the least attractive for private investments (e.g. Sub-Saharan Africa).

Several replies attach great importance to the development of small-scale industry in developing countries, especially in rural areas (Belgium, Italy, Netherlands and Switzerland), and indicate the possibilities of co-operation offered by the small and medium-sized enterprises of these countries. A number of responses indicate energy as another important co-operation opportunity (Austria, Finland, Hungary and Italy).

Finally, the replies described the type and scope of various measures being taken by Governments in the trade, technological, financial and other fields, directly or through multilateral mechanisms and international organizations, with the direct or indirect effect of contributing to the industrialization of developing countries. Such programmes and measures will be analysed in the following chapters of this report.

Structural adjustment

The replies from developed countries reflect an increasing awareness of the trends of structural adjustment in industry; the changes taking place in the international division of labour among countries is regarded in several cases as one of the main economic concerns of the decade. The persistence of recessionary conditions in the world economy, the shifting comparative advantages among countries (including the growing competitive potential of newly industrialized countries), the impact of trade liberalization measures were all mentioned among the main features of the present situation. Although some replies emphasized the global character of the adjustment phenomenon, which affects the world economy as a whole and not merely the relations of developed with developing countries (Denmark, Switzerland), it is in general recognized that there is a need to create new conditions for changes with developing countries in the international distribution of labour . A number of countries welcome such adjustment as it should encourage a more efficient allocation of resources and enable developed and developing countries to make use of their respective comparative advantages (Denmark, Federal Republic of Germany, Sweden, United Kingdom). Yet several replies emphasize the problems of structural adaptability suffered by national industries over recent periods, whose symptoms are slow growth, high inflation, external balance deficits, large state budget deficits, unemployment, regional imbalances and severe problems in certain parts of the industry. Several replies indicate that some traditionally important industrial sectors, such as shipbuilding, iron and steel, iron ore, textiles and clothing, have been seriously affected by the low level of demand and unemployment. Important regional policy aspects appear with respect to several affected branches, making the situation even more difficult.

Nevertheless, several Governments emphasize their firm opposition to protectionist tendencies, stressing the importance of market forces at home and the world market for structural changes (Denmark, Finland, Federal Republic of Germany, Sweden, Switzerland and United Kingdom). Some countries share the view that adjustment is one of the aspects of a continuous adaptation to changing economic structures, and that such adaptation must take place, as far as possible, without state intervention or defensive policies designed to preserve employment levels and production capacities on a short-term basis, such as subsidizing non-competitive industries (Denmark, Federal Republic of Germany, Switzerland, United Kingdom). For these countries, the main role of government is to provide the climate and incentives for industry to respond to opportunities and adapt to changing circumstances. Several replies indicate that positive measures are being taken to support the adjustment process through accelerated factor mobility and technical progress in local industry. For example, the policy of the Government of the Federal Republic of Germany is that general measures, such as promoting innovation and helping industries at home and abroad to develop new markets, increase the adaptability of local industries and create the conditions needed for an efficient and advantageous division of labour with developing countries.

Yet most Governments also admit a number of measures of intervention with varied implications and effects on the process of domestic adjustment. The replies in general do not refer to trade-related measures, despite the well-known dissemination of non-tariff barriers and international marketing arrangements that are threatening to reverse the long-term trend towards trade liberalization.[18/] In this connection a few Governments express their concern at the increasing use of Orderly Marketing Arrangements and Voluntary Exports Restraints (e.g. Canada) or reported on their own efforts to promote further reductions in tariffs on manufactured raw materials imported from developing countries (Federal Republic of Germany). Yet some replies recognize that restraint agreements with supplying countries regarding such sectors as textiles and clothing are being continued.

Several countries have undertaken studies and analytical research to assess the trends and implications of structural changes in industry. In Belgium, a scientific committee was established in 1975 for this purpose, and has worked since then in close co-operation with local industry. Such analytical efforts are the main contribution of governmental agencies in Finland to decisions concerning structural adjustment. And the Government of the Federal Republic of Germany is building up a sector-by-sector structural reporting system in order to improve the basis for decision-making on structural policies as well as to inform interested parties.

The general impression from the replies is that Governments are applying in varying degrees a combination of defensive and positive measures with varied effects on the adjustment of industries.

Employment policies have been introduced in a number of countries. In Canada, a programme to promote industrial restructuring and labour adjustment has been created in response to industrial dislocations in a number of communities. It provides training allowances, mobility assistance, an early retirement scheme etc. For the textile and clothing industries, an important programme was approved in addition providing funds for employment creation and adjustment. In Sweden, since the late 1970s several measures have been introduced with a view to safeguarding employment, although the reply indicates that present policies focus on traditional mobility-supporting measures. Similar measures designed to prolong the time of adjustment in order to maintain employment were reported by Finland, Norway, Switzerland and United Kingdom.

In most countries investment policies are carried out through selective and non-selective instruments. For example, Canada has introduced industrial benefits and guidelines for owners or sponsors of major capital projects, with the objective of improving the access of local producers to investment opportunities in that country, improving the international competitiveness of the industry and strengthening the capabilities of Canadian engineering and construction companies. In addition, the programme of industrial restructuring of this country includes financial assistance for firms undertaking projects in selected areas. In Norway, Switzerland and United Kingdom, the establishment of new industrial projects, particularly in the economically less advanced regions of the country, is promoted through loans, guarantees and fiscal incentives. The encouragement of small enterprises by providing financial incentives is another ground for government intervention in many developed countries, to which the replies of Sweden and United Kingdom refer explicitly.

Regarding sectoral interventions, many countries have adopted special programmes applicable to weak industrial sectors, with the objective of influencing the pace of the adjustment process and slowing down capacity reductions. The sectors involved include textiles and clothing, footwear and tanning industries, shipbuilding, steel etc. A few replies, however, note that the measures taken are temporary, and eventually linked to capacity reductions. For example, in 1977 a state holding in Sweden took over the four major shipyards, and a very drastic reduction of shipbuilding capacity followed as well as a higher specialization of production. A similar strategy was followed in the steel sector.

In the area of selective investment policies, several Governments are particularly active in the support of high technology industries. For example, Canada has established a major office communications systems programme providing research, technical assistance and financial incentives to micro-electronic industries; it has also launched a major initiative in the field of energy. The United Kingdom has chosen some sectors for special attention, including information technology, micro-electronics, fibre-optics and the application of advanced manufacturing techniques. Most replies indicate that government spending in the field of research and development aimed at improving industrial competitiveness and innovation has been increased.

To summarize, although most replies recognize the importance of structural adjustment, the need for government intervention is also admitted to influence the rhythm and direction of the adjustment process in order to prevent or mitigate politically, economically and socially unacceptable consequences. As indicated above, such protectionist measures tend to cover industrial activities in which developing countries have a comparative advantage, as is the case in certain traditional and mature industries. Also, the incentives to promote investments in local industries or by specially affected categories of enterprises, such as smaller firms, that could otherwise be oriented to redeployment in developing countries, may have a negative impact from the viewpoint of an efficient international division of labour.

Industrial co-operation with developing countries

The worsening situation in their industrial sectors and the growing use of protectionist measures have not prevented many developed country Governments from adopting policies and measures to encourage the establishment of production capacities in developing countries through direct foreign investment or technology agreements. Regardless of the final objectives or terms of such instruments, which are frequently motivated by the wish to promote exports rather than to provide aid to the recipient countries, it is important to note the developed country Governments increasing interest in facilitating the redeployment of enterprises to ʼeloping countries.

The improvement of industrial capacities in developing countries depends greatly on the market access offered by developed countries, and in this connection Austria, Denmark and Italy stress their initiatives in the area of tariff reductions, elimination of non-tariff barriers and implementation of the Generalized System of Preferences (see chapter V). Yet direct promotional measures to encourage productive co-operation between enterprises of developed and developing countries are particularly relevant. An analysis of the replies is given below.

General incentives

Several replies (Austria, Belgium, Federal Republic of Germany, Norway, United Kingdom) report on the availability of a number of financial and fiscal advantages offered to enterprises wishing to transfer resources to developing countries. These include guarantees for capital investment, soft loans to firms for establishing subsidiaries abroad, tax concessions, various grants and export credit financing. For example, Norway has a scheme that offers grants to the local authorities or the joint venture company for financing part of infrastructural investments and part of the equity capital of joint ventures.

Investment and taxation agreements

Some developed countries with longer experience in international investments, such as Federal Republic of Germany and United Kingdom, refer to the bilateral agreements signed with developing countries for the protection of investments. Usually such agreements provide for standards of treatment to subsidiaries, guarantees against nationalization, and are linked to investment insurance schemes. Also treaties regulating double taxation problems have been arranged with an increasing number of developing countries. On the other hand, the approach of centrally planned economies with regard to industrial co-operation is to work out comprehensive, long-term inter-governmental agreements encompassing industrial, commercial and technical matters. The reply from the Soviet Union indicates that during the tenth five-year plan (1976-1980), 155 installations were built and 680 installations were brought into operation in developing countries with its assistance. Similarly Hungary has co-operated in recent years with a wide circle of developing countries in the design, construction and operation of industrial plants. The agreements regarding certain products, specially in the light industry, are oriented towards a redeployment to developing countries of activities previously carried out in Hungary.

Development finance corporations

One innovation in the field of industrial co-operation has been introduced with the creation of government owned or sponsored financial corporations dedicated to the promotion of investment projects in developing countries. The pioneering example of some countries, such as the Federal Republic of Germany that established the German Development Corporation (DEG) as early as 1962, has been rapidly followed by many others. Thus the Industrialization Fund for Developing Countries (IFU) was established by Denmark in 1967; the Finance Company for Developing Countries (FMO) by the Netherlands in 1970; the Belgian Corporation for International Investments (SBI) in 1979; the Swedish Fund for Industrial Co-operation with Developing Countries (SWEDFUND) in 1978; and the Finnish Fund for Industrial Co-operation (FINFUND) in 1979. Other public entities such as the Canadian International Development Agency (CIDA) and the Irish Industrial Development Authority (IDA) develop a similar role. Such a role in general consists of a package of services of financial and technical assistance, including minority equity participation in joint ventures between industrialists of the countries concerned. A few development corporations emphasize the promotion of joint ventures with the participation of small- and medium-sized enterprises (DEG, IFU). The main advantage of these institutions appears to be the catalytic role played by the package of services that they provide. An idea of the potential of the development finance corporations is provided by the experience of DEG, which by the end of 1980 had helped to finance the setting-up or expansion of 257 companies in 68 developing countries, with DM 923 million in commitments.

Multilateral mechanisms

Although bilateral industrial co-operation is emphasized, many countries also consider important the use of international organizations. Several European Economic Community (EEC) members refer to the actions undertaken by EEC, especially through the Centre for Industrial Development that promotes investments in Africa, the Caribbean and the Pacific (ACP) States, which are members of the Lomé Convention with the EEC.

Such a centre has the following functions: (a) dissemination of information and organization of contacts between economic operators and industrial and financial policy-makers in the Community and in the ACP States; (b) execution of feasibility studies for the purpose of accelerating the establishment of industrial undertakings in the ACP States; (c) identification and evaluation of opportunities for industrial training for the nationals of ACP States, and the possibilities of acquiring, adapting and developing appropriate industrial technology; and (d) seeking out possible sources of financing.

The role of UNIDO

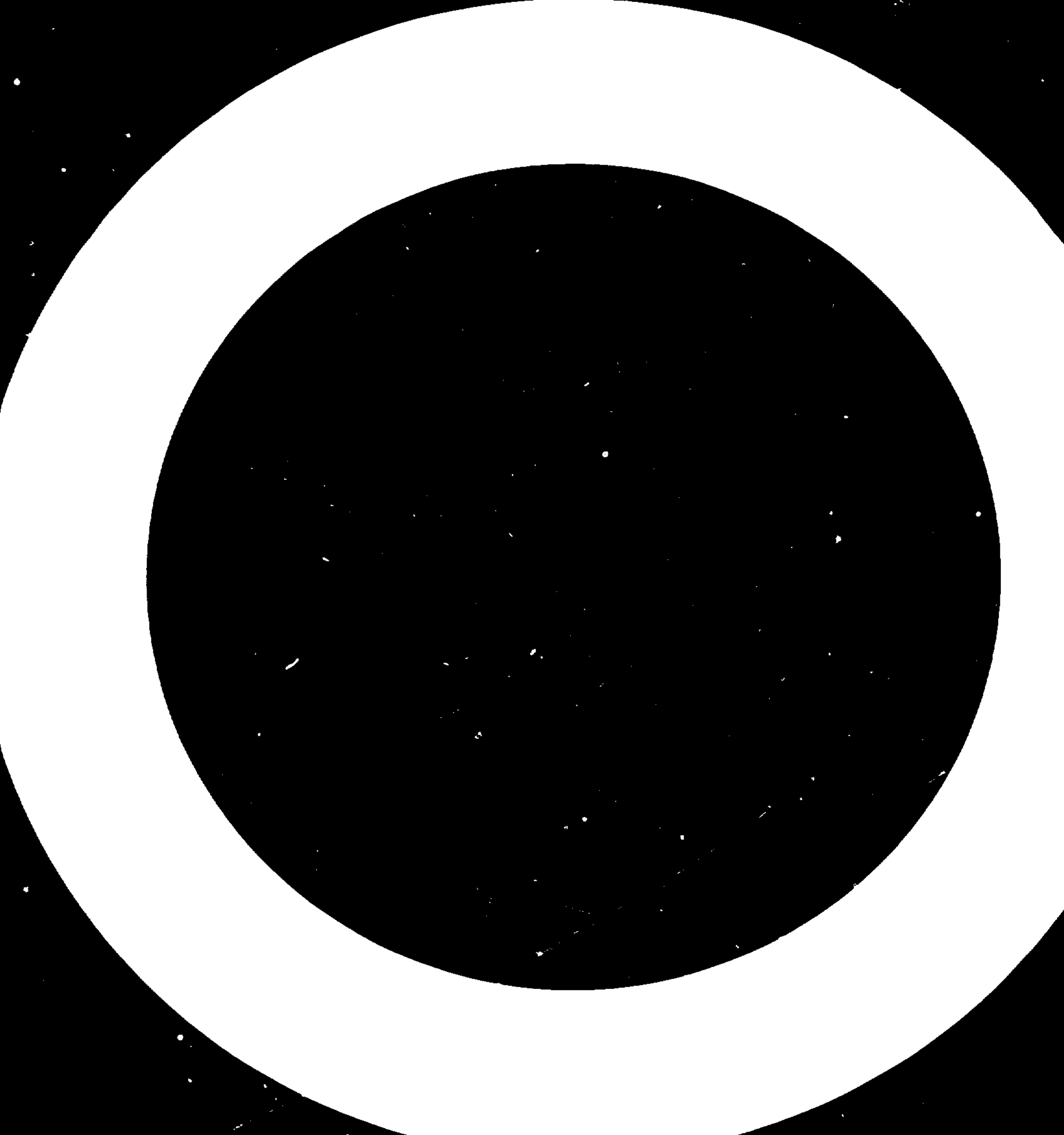
The views of the developed countries were asked with regard to the potential of the UNIDO System of Consultations, investment promotion and related activities for enhancing co-operation with developing countries.

Regarding the System of Consultations, all replies agree on its increasing importance as an instrument of continuing dialogue in the field of industry. Transformed already into a permanent activity of UNIDO, 14 Consultations on the industrial sector have been organized in the five years from 1977 to 1981, with the participation of representatives of industry, labour and Governments. Most replies stress the positive role played by the System of Consultation in regard to the exchange of views, contacts with developing countries, and knowledge of trends in different sectors and countries. There is also a general view that there is still ample room for the strengthening and improvement of the System: several replies suggest that it should be made more country and project specific, product rather than process oriented, open to the participation of the private sector of developing countries, and based on adequate preparatory work and follow-up and implementation of the findings and conclusions of the Consultations.

The replies also referred to the useful role of the Investment Co-operative Programme of UNIDO, whose main elements are the preparation of industrial feasibility studies, the promotion of industrial investment projects and the operation of the Investment Promotion Services in industrialized countries. The replies from Austria, Belgium, Federal Republic of Germany and Switzerland mentioned the activities carried out by the Investment Promotion Services established through UNIDO in these countries, apart from those operating in France, Spain and United States of America.

The measures so far described are complemented by other actions taken by developed countries in the field of technical and financial assistance, which will be analysed in the following chapters and together form a package of policies and instruments relating to industrial redeployment to developing countries. However, the effectiveness of such measures should be analysed in conjunction with other policy trends that have, or may have, opposing and contradictory effects, very often stronger than the positive ones that could derive from the promotional measures. In terms of their incidence or redeployment, the domestic policies that the Governments of most developed countries, especially in trade, employment and investment fields, are increasingly geared to maintain existing structures through subsidies and protectionism and therefore have a negative effect on redeployment, which is much more significant than the beneficial impact of the incentives for investment in developing countries. In that sense, there seems to be an increasing contradiction between the insistence of some developed countries on the risks of free trade and the international division of labour, and the real behaviour of their increasing protectionist policies.

Although a more optimistic line of reasoning would, perhaps, recognize that while the various policy obstacles to redeployment are explained to a large extent by the present recessionary world situation (and therefore could or should be removed if and when the situation improves), the incentives that several developed countries are providing to facilitate industrial co-operation with developing countries, although overlapped by and unco-ordinated with other domestic policies, modest in most cases, seem to respond to a longer-run trend that views redeployment in a positive manner. It appears that recently such incentives have not only been maintained, but in some cases increased. Moreover, some of the new incentive policies and instruments appear to be pitched at the right level. Such is the case of the Development Finance Corporations, and the emphasis on the redeployment of small and medium-sized enterprises of developed countries.



Part two

POLICY ISSUES IN SELECTED AREAS

III. POLICIES AND INSTRUMENTS FOR THE DEVELOPMENT AND TRANSFER OF TECHNOLOGY

The critical importance of technology in industrialization has been established in all the major fora and action programmes adopted by international organizations in recent years. The establishment of domestic capabilities in developing countries, including the capacity to adopt, transform, and develop technologies, is now recognized as a strategic input for industrial development. Yet developing countries face continuous difficulties in the acquisition, development and diffusion of industrial technology. On the one hand, the building up of innovative skills is a long complex process that depends on the general development of the productive resources in each country. On the other hand, for developing countries such technological development is closely linked to the terms and conditions of their access to the international flows of technology. In both cases an adequate degree of government intervention is required.

In the Lima[15/] and New Delhi Declarations and Plans of Action,[17/] emphasis is placed on the elaboration of national plans concerning science and technology; the adoption of specific policies in the field of research and development, development of manpower resources, industrial information and standardization; and the promotion and regulation of the transfer of technology. Developed countries are called on to collaborate in the technological transformation of developing countries, granting them access to know-how and advanced technology under fair and equitable conditions, expanding technical assistance programmes, promoting the development of appropriate technology of direct benefit to developing countries, and facilitating the negotiations on the formulation of an international code of conduct for the transfer of technology as well as the revision of the international patent system. In order to evaluate the progress made along such lines by developing and developed countries, UNIDO asked Governments to supply information on the main relevant topics.

Technological planning and policies in developing countries

The process of technological development involves a wide range of efforts at different levels, including scientific education, basic and applied research activities, formal and informal training, operational experience and learning-by-doing. Public policies can affect or influence the role and direction of such developments through explicit and implicit measures of regulation, control and incentive, based on the framework of general economic policies or specially tailored to the needs of sectors or particular activities. In this regard, the replies from developing countries are virtually unanimous regarding the need for explicit governmental action in the field of technology. Such attitudes can be observed even in cases that stressed the non-interventionist general strategies of economic development and the predominant role of private initiative.

Nevertheless, the level of technological awareness is not the same in all developing countries. In some countries the division of labour between domestic and imported technology seems to be still unclear, reflecting a persistent reliance on the latter way of acquisition (Comoros, Cyprus). In a number of countries, especially among the less advanced, emphasis is put on the international assistance being (or to be) provided by international organizations to devise strategies and mechanisms of technological development (Burundi, Costa Rica, Zaire).

Institutional infrastructure

Although some developing countries report only on actions taken in fields of strategic interest, such as agricultural and food technologies (Bahamas, Benin), the general trend seems to be towards a global, systematic approach to industrial technology. Several countries have adopted science and technological development plans and strategies (Brazil, Guatemala, Guyana, Mexico, India), or special chapters in technology within general development plans (Iraq, Nigeria, Romania, Thailand). In some cases, the technology plans adopted in the early or mid-1970s are being revised and updated to improve efficiency. For example, the Government of India recently prepared a technology policy statement on the planning, generation and application of technologies in various sectors of industrial development based on the experience acquired through the 1974-1979 Science and Technology Plan. Similarly in Mexico, the technical and scientific structure built up since the early 1970s is viewed as weak and fragmentary, so that the recent government policy calls for the setting-up of a new programme of action for science and technology. Also some countries announce the adoption of science and technology plans or strategies in the near future (Ethiopia, Honduras, Mauritius, Sudan).

Complementing or supplementing technology plans, a large share of the responding countries have already set up an institutional framework dealing with technological development. The most typical institution is represented by the science and technology boards or councils, organized in general as decentralized, high-level agencies with policy-making, co-ordinating and promotional powers (Brazil, Ecuador, Ethiopia, Guyana, India, Kenya, Malawi, Mexico, Nigeria, Pakistan, Panama, Peru, Singapore, Sudan). In a few cases, ministries of science and technology have been created (Indonesia, Pakistan, Tunisia) or special departments within other ministries dealing with technology policies were organized (India, Indonesia, Madagascar, Malawi). Some countries (Iraq, Zimbabwe) report on initiatives to set up similar institutions. Although such a process of institutional building reflects the increasing desire of Governments to enhance the application of technological considerations in industrial development, the available information does not suffice to evaluate the performance of the existing machinery. Several replies, however, mention the need for planning and policy institutions to discover the real needs of industrial enterprises, to provide for a quicker dissemination of the results of the official programmes and to undertake specific projects rather than build up new bureaucracies.

Human resources development

The development of human resources is one of the crucial factors of economic development, particularly in the industrial sector. The availability of a qualified work force is essential not only for the production of goods and services, but also for management skills, thus making possible the assimilation of modern technologies. In short, technological development is inconceivable without an adequate base of engineers and scientists, middle-level technicians, and skilled labour.[19/]

Many developing countries have made considerable progress in the direction of creating an educated and skilled work-force. In several semi-industrialized countries the steady build-up of skills has made available a highly competent labour base, even by international standards.[20] Yet in most developing countries the situation is still characterized by the shortage and low utilization of scientists and engineers. Educational facilities are lacking or weak, and the university programmes are academic rather than oriented to industry. They are in general unrelated to the absorptive capacity of the labour market and to the specific needs of the national economy. In many of the less advanced countries, formal education and training activities are still excessively dependent on expatriates and foreign curricula. In addition, the "brain drain" is a drastic problem in virtually all developing countries.

The replies from developing countries reflect the persistence of acute problems in the process of human capital development, a general, active concern about the bottle-necks caused thereby for industrial development and anxiety to solve the problems. Although few replies provide accurate or quantifiable estimates of the requirements to train and upgrade human resources for industrial development, virtually all recognize significant and increasing deficits. Even semi-industrialized countries, for example, Republic of Korea and Singapore, admit shortages, particularly in higher-grade manpower and highly skilled workers.

Thus it is not surprising that the replies emphasize the needs stated by the Lima and New Delhi Plans of Action to improve and adapt the educational system, to adopt co-ordinated programmes of literacy and workers' training, and to intensify manpower development training programmes and the professional training of management staff.

The responses indicate that a number of diverse actions have been recently initiated by developing countries in the area of human resource development. Although in most cases plans and policies are at a preliminary stage, there are some common denominators in the approaches followed by most responding countries.

Governmental and public sector institutions predominate not only in the promotion and co-ordination of manpower policies, but also in their development and execution. In some of the more advanced developing countries, however, the private sector plays an important role. In Brazil, for example, industrial training services have been historically left to the private sector: an important organ controlled by the Industrialists Federation, the National Service of Industrial Apprenticeship, has been at work for the last 40 years. Also in Republic of Korea and Singapore, the training policies rely to a great extent on the contribution of private organizations.

Both general policies and specific mechanisms and institutions are utilized by Governments. The Constitution of Mexico has made training of workers a normative requirement, which implies a right and a duty for workers. Other countries' policies are based on a system of optional incentives. For example, the Statute of Training and Employment of Chile permits firms that have recourse to it to deduct from taxes the direct expenses that they incur on behalf of their workers. Another interesting approach, followed by a number of countries, is to require that development projects and technology transfer contracts include a specific training programme to be provided by the supplier of the technology (Brazil, Peru).

Regarding institutes and administrative mechanisms created for human resource development, there is a simultaneous use of a multiplicity of instruments, which in some cases appear too many to function in an effective and co-ordinated manner. Such mechanisms specialize in different levels of skills, sectors, and types of enterprise.

Formal training is usually provided by the public educational system. For example, the Department of Public Education in Mexico offers vocational training through industrial technology schools, scientific and technological education centres and the National College of Technical Training (for training middle-level technicians with assistance from enterprises). Most countries, and particularily the less advanced, announce significant expansions of educational facilities (colleges, polytechnics and universities of technology) in view of the expected increases in the student enrolments. In some cases, such as Malta, the system of education has been reoriented at the university and technical school levels (adopting, for example, skill training and pupil worker schemes) in order to ensure the availability of capacities required for development.

Technical training centres of different kinds are being established or strengthened by many countries. In 1981 Pakistan launched the National Vocational Training Project that involved the creation of 6 new training centres, the upgrading of 32 institutions and the planned training of 10,800 persons per year. In Cyprus, the Industrial Training Authority was activated and it works in conjunction with a productivity centre in the development of skilled labour. In Ethiopia also a national productivity centre providing training services was established by merging existing institutes. Formal training is also provided by apprenticeship programmes and schools in several countries. In India, the Apprentices Act makes it obligatory in specified industries to engage a certain number of apprentices.

Measures for encouraging informal, on-the-job training programmes have been adopted in most countries. In those where the public sector participation in industry is important, each organization tends to have their own training courses, seminars and other services. In Mexico, in-service training is the responsibility of a special supervisory body. As already mentioned, several countries grant financial and tax incentives to encourage on-the-job training by manufacturing enterprises.

In some countries, special training facilities are provided in the context of programmes to support small and medium-sized enterprises (Ethiopia, India, Indonesia). For example, the Industrial Extension Service for Small Industries was established by Indonesia with strong emphasis on training in management and technology. The overseas training programmes that government institutions of several countries provide through grants, scholarships and the assistance of international organizations and bilateral programmes of developed countries should also be mentioned (see above).

Finally, questions were asked on any particular measures taken to train and upgrade the skills of women. Most replies offer the usual argument of non-discrimination, equal access to opportunities offered by training programmes and therefore the lack of need for special treatment. Yet a few replies reflect some concern about the unequal situation of women. Some countries indicate that training programmes include special courses for women (industrial garments, handicrafts, ceramics, secretarial services). Others have adopted more elaborate measures. For example, in India, of 970 institutes of craftsman training set up by the Government, 130 are exclusively for women, and a project on vocational training in women's occupations has been introduced providing facilities in selected trades with high employment potential. In the Republic of Korea, special vocational training centres for women are being operated; and in Singapore, retraining centres for married women are planned.

Research and development

For the purpose of the present monitoring exercise, Governments were asked about measures taken to encourage directly innovative activities, in particular research and development. Yet conventional indicators to measure technological development efforts are not easily adaptable to the circumstances of developing countries where much of the innovative process takes place outside formal programmes of research. Adaptive efforts, modifications and duplication of imported innovations and minor developments arising out of in-plant operational experience have great significance in the early and intermediate stages of industrialization. Such developments are difficult to measure. They are also dependent on a number of factors in which government measures of different kinds have a significant, but not always explicit, direct role. For these reasons, the replies received from developing countries reflect in part the existence of a wider concept of technological innovation, and they do not cover all the dimensions of public policy that are currently in operation and influencing such a process.

The promotion of technical change through creative research is none the less recognized as crucial by most developing countries. Even in those countries with more industrial experience the level of resources devoted to research and development is still low and Governments have planned increases. In the Republic of Korea, the share of research and development investment in GNP is expected to increase from 0.81 per cent in 1979 to 2.0 per cent in 1986; in Mexico, the target of the Global Development Plan was to raise such shares from 0.1 per cent in 1976 to 1.0 per cent in 1982. Developing countries encourage technological development in various ways, as listed below.

Research centres and institutes

In most cases, the above-mentioned science and technology councils and committees carry out research programmes directly or through specialized agencies that they control, co-ordinate or sponsor. For example, the Indian Science Council has set up a network of national and regional laboratories specialized in various fields of production, and the Pakistani Council is being strengthened to undertake practical industrial research in various sectors. Yet in general, direct research efforts are entrusted to specialized agencies such as the Institute of Applied Science and Technology in Guyana, the Agency for Industrial Research and Development in Indonesia, the Kenya Industrial Research and Development Institute, the Appropriate Technology Development Organization of Pakistan, the Institute of Technology and Technical Norms of Peru, and the Technological Investigation Institute of Chile. In other countries the emphasis is put on sectorally specialized institutions, particularly in the area of agro-related research (Bahamas, Panama, Senegal, Sri Lanka). Finally, several replies mention the role played by the university (faculties of technology, postgraduate studies, or research units such as the one established at the University of Nairobi, Kenya, with the assistance of the United Nations Development Programme and the United Nations Industrial Development Organization).

Incentives

Despite the leading role of public sector agencies in many developing countries, the possibilities offered by private enterprises in the field of research and development are being increasingly recognized. Several among the more advanced developing countries are actively encouraging the in-house research and development programmes of individual firms through a system of financial, tax and other incentives. India offers tax deductions and liberalization of licensing procedures for establishing production lines developed in indigenous research organizations. Brazil, Mexico (which has recently adopted special legislation to co-ordinate incentives to research and development) and Republic of Korea provide tax reductions and financial incentives. For example, special funds for financing technological development have been created in Brazil and Chile. On the other hand, Singapore announced the creation of a science and technology park near the National University to stimulate interaction between universities and industry.

An interesting policy adopted by Brazil (on a case by case basis) and India (as a general requirement) is to approve foreign investments subject to the establishment of a research and development unit to absorb, adapt and improve the imported technology, or to arrange a research programme with a local institution.

On the other hand, in the less advanced developing countries the encouragement of private technological innovation is linked to the improved application of standardization measures, technical norms and quality controls, which are increasing in many countries, particularly for certain basic goods industries, such as the production of food, pharmaceuticals and construction items. But the possibilities offered by regional co-operation between developing countries are also mentioned in several replies from the smaller nations (see chapter VI).

Finally, a few countries mention recent or planned reforms of patent legislation, with the objective of eliminating restrictions to domestic technological development. In this connection, several Latin American countries have introduced important changes in patent laws, such as the obligation to exploit patents, the elimination of the import monopoly and the provision of utility models to protect minor innovations. In this context, developing countries noted the importance of the present negotiations for the revision of the Paris Convention on the protection of industrial prospects, which has the objective of adapting the convention to the needs of developing countries.

Transfer of technology

The last two decades have witnessed a rapid growth of trade in technology, in which developing countries are increasingly participating although, in contrast to industrialized countries, their role is essentially of net importers. Only a few of the more advanced countries in Latin America and Asia have made their first steps as exporters of technical knowledge.

Developing countries are concerned that importers have problems of access, evaluation and negotiation with technical markets in many industrial sectors. This results in quasi-rents to sellers, who often enjoy monopoly advantages because of secrecy and patent protection.21/ Technology is usually transferred under terms and conditions that are the outcome of negotiations between parties in unequal bargaining positions. For the recipient, this situation involves the risks of higher direct and indirect costs, and restrictive clauses. Moreover, many technology imports to developing countries take place within the internal circuit of transnational corporations, through parent-affiliate transactions, where no independent negotiating capacity is exercised by the recipient parties. Yet such transactions also involve costs for the national economy. On the other hand, transnational corporations, as major sources of technology, have the power of determining and influencing the types of technology innovation available in the international market. Thus the question of the appropriateness of technology, i.e. its suitability to development goals, resource endowments and conditions of the recipient economies, is also involved.

For such reasons the case for a certain degree of government intervention in order to improve the conditions of acquisition and to strengthen the bargaining abilities of technology importers has been gaining recognition in developing countries. Over the last decade, an increasing number of countries, particularily in Latin America and to a lesser degree in certain African, Arab and Asian countries, have adopted legal and administrative regimes for the regulation and control of the transfer of technology. Indeed, such measures have been encouraged by a number of international initiatives that call for developing countries to establish regulatory institutions. Among such institutions, particular importance is accorded by developing countries to the finalization of negotiations on an international code of conduct on the transfer of technology, designed to improve the terms and conditions of the acquisition of important technology by developing countries and to strengthen the relevant policies and legislations.

The replies received from developing countries to UNIDO's questionnaire show that the process of government intervention has increased in those countries since the early 1970s, when only a handful of developing countries had technology transfer regulations. More than 40 per cent of the responding countries, which do not include all countries where regulations exist, have now adopted such regulations, and another 15 per cent are in the process of doing so. However, developing countries are evenly divided regarding the role of government intervention in the technology transfer process. A large number of them have not adopted, and are not planning to adopt, policy measures because they are not aware of the value of regulations, they have made a decision not to have such policies because they believe they will lose attractiveness for external collaboration, or they feel that at their present stage of development such regulations are not convenient or are no longer necessary.

The list presented (for illustrative purposes) in table 7 indicates that countries with existing or planned regulations are of different sizes, development levels, and economic policies. Although a significant share of the explicit policies is concentrated on the largest, semi-industrialized countries, which were the first ones to adopt measures, there are several less advanced nations that in recent years have decided to do the same (Ethiopia, Guatemala, Iraq, Nigeria etc.).

Table 7. Reporting developing countries that have adopted or are planning to adopt systems for the control of the transfer of technology

Country	Type of system: Laws	Guidelines	Administrative control	Year of adoption	Regulations planned
Bolivia					x
Brazil	x			1975	
Burundi					x
Costa Rica					x
Ecuador	x			1971	
Ethiopia			x	1980	
Guatemala			x		x
Guyana					x
India		x		1951	
Indonesia			x	1981	
Iraq		x		...	
Kenya			x	...	
Madagascar			x	1980	
Malawi			x	...	
Mexico	x			1973	
Nigeria	x			1979	
Pakistan					x
Peru	x			1971	
Rep. of Korea	x			1967-1972	
Sri Lanka		x		...	
Thailand					x
Turkey	x			1954	
United Rep. of Cameroon			x	1978	
Upper Volta					x
Venezuela	x			1974	
Yugoslavia	x			1978	
Zimbabwe			x	...	

The scope and direction of such regulations vary considerably; only in a few cases are there what might be called comprehensive regimes. They usually belong to the more advanced contries of Latin America and Asia, which have adopted laws or policy guidelines covering the different aspects of technology imports: evaluation, authorization, registration, standards for prices and duration of contracts, detailed control of restrictive practices, and establishment of special administrative machinery for the control of contracts. Yet in most countries the regulations are still limited to certain items, such as the control of royalty remittances or legal formalities, and often no agencies specialized in the subject have been created. In several cases the laws and the authorities for the control of foreign investments or the application of industrial property legislation provide the context for the control of technology agreements.

So far, technology transfer legislation has focused in most countries on the control of the level of payments and the avoidance of restrictive practices. The information from a number of countries indicates that such objectives have been successfully achieved and that the inflow of foreign technology has not been discouraged by the stricter controls.[22/] Yet other important aspects, and particularly the issue of the choice or selection of technology, have not become strong features in the regulations. One of the few exceptions seems to be India, which has recently stressed the requirement that importing companies should explore possible alternative sources of technology and justify the reasons for preferring their particular choice. Similarly the problems of ensuring the effectiveness of the transfer and the monitoring and follow-up of the contracts have been generally insufficiently dealt with, although recent revisions are emphasizing such issues as the full disclosure of technical information (Brazil, Peru), the stipulation of detailed training programmes (Brazil, India, Nigeria), and the analysis of the implementation of the agreements at the time of renewal (India, Peru). This last trend is a clear sign of a new approach that seems to be at work in some of the more experienced developing countries, which after initial pressure on the strict control of abuses and restrictive provisions now emphasize the efficient use of technology and the maximization of the benefits that could be expected in each case.[23/] Evidence of this less defensive approach can be found in recent changes in the regulations and guidelines of several countries. For example, the Industrial Policy Statement of India of 1980 admits the need to update the production of technology in a number of sectors, particularly when a larger production base would increase the scale economies and the international competitiveness of Indian industry, in which cases the Government will consider favourably the induction of foreign technology. Also in the Republic of Korea, since 1980 the Government has relaxed existing controls, expanded the system of automatic approval of contracts and accorded financial and tax incentives to the introduction of necessary foreign technology.

Information on technology

Both the effective selection of technology and its introduction and diffusion into the domestic productive system require an adequate system of sources and channels of information. Yet as a recent UNIDO report indicates:

> "Enterprises in developing countries, with the exception of a very few large enterprises, do not generally possess technological information, and more important, they often do not know where it can be obtained. As a result, industrial and technological decisions are taken on the basis of inadequate information."[24/]

The lack of appropriate links between the institutions responsible for the development and transfer of technology and the potential users in the industry is a problem in most developing countries. In reviewing the responses to the UNIDO questionnaire, however, it appears that more and more developing countries are becoming aware of the need to deal with the information gaps by specific measures and institutions.

On the one hand, there is a number of countries that have already set up relatively important programmes and policies of technological information. In India, the Technology Information Centre of the Directorate General of Technical Development collects and analyses data on the development of indigenous technologies, technology transfer and adaptation of imported technologies, engineering and consultancy services, and exports of Indian technologies. Such data are used in processing proposals for foreign collaboration, orienting the choices of local entrepreneurs, promoting the commercialization of domestic innovations etc. In Indonesia, the National Scientific Documentation Centre collects and disseminates technical information in co-ordination with research and development agencies, industrial resources institutes and other organizations. In the Republic of Korea, the Government operates the Technology Transfer Centre and the Korea Science and Technology Information Centre, which have the objective of helping local entrepreneurs to obtain technologies on suitable terms and conditions. In Mexico, the Information and Documentation Fund for Industry (INFOTEC) is responsible for providing all types of information to enterprises in nearly every branch of industry. In Peru, a few years ago, a Technical Information Centre was created within the structure of the Technology Research Institute, whose function is to assist enterprises by locating technical information from national and international sources.

The National Institute for Information and Documentation of Romania and the Science Council of Singapore, which promote new technologies through seminars, specialized workshops, lectures and publications, seem to be further examples of technical centres of a certain magnitude and scope. In other countries sectoral centres appear to play an important role, in which information services are usually related to extension works and technical advice. Such is the case, for example, of the Fishing Promotion Institute and the National Institute for Investigation of Natural Resources in Chile, and the Bahamas Agricultural and Industrial Corporation.

On the other hand, several countries are in the process of organizing their first comprehensive technological information centres. Pakistan reports on an ambitious plan that includes the strengthening of the Appropriate Technology Development Organization, establishment of rural development agencies and district design centres, diffusion of technology programmes through mass media, encouragement of scientific societies and technology clubs etc. Ethiopia, Iraq, Madagascar, Malawi, Oman, Senegal, Sudan, Tunisia, Turkey, Upper Volta and Uruguay have also reported on projects to establish technological information centres of various kinds, in several cases with the support of UNIDO.

Finally, the establishment of technological information networks through regional co-operation mechanisms should be mentioned. Such an alternative has been followed by the countries of the Andean Group, which runs the Andean System of Technological Information (SAIT). SAIT promotes the collection and exchange of information on aspects such as technology imports, prices of inputs and market studies.

To sum up, the replies reflect the growth of technological awareness in developing countries. Regardless of the general views of Governments with respect to the role of the public sector in economic development, such awareness is resulting in the increasing intervention of public policies and instruments. An area that has rapidly developed in many countries is the regulation of technology imports. Although there are still many Governments with laissez-faire policies with regard to the transfer of technology, the evidence indicates that the number of Governments providing for active policies has increased in recent years. On the other hand, Governnments have been introducing policies to promote indigenous technological development, ranging from technology plans and research centres to financial incentives. The impression is, however, that many such policies have been set up in an unco-ordinated manner and following different approaches and concepts of technological development. Linkage between technological import policies and development incentives are often poorly shaped or ineffective, and science and technology plans and councils are frequently not related to the available national capacities in the industry. Recently, however, several Governments are paying more attention to the building-up of an integrated strategy of technology development, in which imports play a defined role in the process of local learning and innovation together with policies of manpower training, research and development, and information.

Technical assistance and technological co-operation from developed countries

Many United Nations bodies and conferences have stressed, in recent years, that the efforts of developing countries to promote their technological development should be complemented by international, multilateral and bilateral programmes of technical co-operation. The fact that enterprises of industrialized countries will continue, for some time at least, to be the main source of industrial technology and its transfer through predominantly market transactions, raises the problem of the nature, contents and conditions of contractual arrangements, and the question of the extent to which the laws and regulations being adopted by developing countries can, or should, be matched and strengthened by guidelines prescribed in technology-exporting countries, consistent with the requirements of the recipient countries.[25/] There is a need for a greater flow of technology from a larger number of industrial enterprises, including small and medium-sized firms that may well prove a more appropriate channel for the transfer.[26/] Similarly, attention has been given to the possibilities of promoting the research, by centres of developed countries, of technologies adapted or relevant to the needs of developing countries, and of undertaking with them research co-operation programmes. The Governments of developed countries could promote, through subsidies or incentives, the transfer of know-how on preferential terms. Finally, expanded technical assistance programmes, emphasizing the development of human resources through comprehensive training schemes, may play a unique and essential role in the strengthening of the technological base of developing countries. Against this background the Governments of developed countries were invited to supply information on activities and measures taken to promote the development and transfer of technology and the supply of technical assistance to developing countries.

Although questions were asked on technical co-operation at both the public and private sector levels, the replies emphasized actions and programmes directly controlled by Governments. However, also mentioned was the encouragement of private industrial co-operation through financial and tax incentives to enterprises establishing production capacities in developing countries (see chapter II), which are viewed as a channel for the transfer of technology. In this context, the reply from the Federal Republic of Germany emphasized a new programme, started in 1981, concerning the economic application of new technologies in developing countries. The programme includes the granting of low-interest loans to small and medium-sized firms in the Federal Republic of Germany that transfer such technologies to developing countries in the form of joint ventures with partners in those countries. Also the report from Canada referred to the Industrial Co-operation Programme of CIDA (see chapter II), which includes a Canadian Technology Transfer Facility whose function it is to encourage Canadian companies to test and adapt their technology to the conditions of developing countries' partners in investment projects. The Swedish National Board for Technical Development (STU) was also mentioned, and its programme for appropriate technology, which emphasizes adaptation efforts through direct contacts and negotiations between Swedish firms and enterprises from developing countries. On the other hand, the replies from centrally planned economies pointed out the role played by inter-governmental agreements, such as trade and payment arrangements, technical and scientific co-operation and economic co-operation agreements, which serve as a framework for the transfer of different types of technology. In addition, several replies (Ireland, Italy, Switzerland, United Kingdom) declared the support of their respective Governments of the current efforts to adopt an international Code of Conduct for the transfer of technology.

Thus, the information received concerns basically the activities carried out in the context of technical assistance programmes, which are usually included in ODA programmes of developed countries. The available information reveals that technical assistance concentrates an increasingly important share of the global resources annually devoted by developed countries to their ODA programmes. In 1980, it accounted for about 40 per cent of bilateral ODA of the Development Assistance Committee (DAC) of OECD countries. An increasing share of such resources is applied to the least developed of the developing countries, particularly in Africa. Yet in view of the present international economic situation, the flows of ODA are not likely to increase substantially in the next few years (see chapter IV). On the other hand, as suggested by the few data collected and presented in table 8, and the comments made in other replies, the share of technical assistance devoted to the industrial sector is very low. As indicated in one report, a reason could be that the official requests of the receiving Governments generally allocate preference to public sector projects in the physical and social infrastructure sectors. But little attention has been given, so far, to the development of the recipient's administrative capacity: in 1978-1979, DAC members allocated only 2 per cent of their bilateral ODA to planning and public administration.27/ Besides, traditional ways of technical assistance still suffer from numerous defects, such as their fragmentation, lack of co-ordination, ethnocentric approach and rigid ties to the donor country's resources.28/

A closer look at the recent efforts of some developed countries reveals some progress and promising trends. The following is a descriptive review of what appear to be the main features and highlights of the developed countries latest performance.

Table 8. Technical assistance programmes of reporting developed countries

Country	A. Overall technical assistance programmes (flows) (In millions of current US dollars)				B. Technical assistance programmes for industrialization (flows) (In millions of current US dollars)			
	1975	1978	1979	1980	1975	1978	1979	1980
Austria a/	9.65	33.68	37.99	42.04	1.95	2.02	3.24	4.24
Canada	57.00	55.00	50.00	(99.00)	...	...	...	...
Denmark	28.77	68.45	76.88	105.19	0.06	4.26	...	...
Finland	10.10	13.40	29.70	32.60	...	...	...	...
Germany, Fed. Republic of	636.00	755.10	844.60	990.70	24.10	39.00	38.20	60.10
Greece	0.20	0.26	0.26	0.32	...	...	...	...
Netherlands	...	480.00	510.00	570.00	...	...	...	...
Norway	19.20	37.50	37.90	42.30	2.10	2.70	1.90	2.80
Sweden	42.50	87.20	89.60	108.80	...	...	...	...
Switzerland	34.10	74.90	98.00	103.70	2.60	7.20	12.60	8.70
United Kingdom	213.90	294.00	393.50	505.50	...	35.10	43.70	61.50 b/

a/ Official; crafts, industry, mining, commerce and tourism.

b/ Includes mining, energy and construction.

Development and transfer of technology

Some developed countries have created or expanded special programmes and organizations devoted to the development and transfer to developing countries of so-called appropriate technologies. The German Agency for Technical Co-operation (GTZ) set up in 1978 a unit called German Appropriate Technology Exchange (GATE) to promote and disseminate adapted technologies in developing countries. The Swedish Agency for Research Co-operation with developing countries (SAREC) started in 1975 to provide support to research co-operation programmes with institutes of developing countries. In addition, the Government of Sweden established a Commission for Technical Co-operation with Developing Countries (BITS) with the purpose of promoting the transfer of technology through the financing of feasibility and pre-investment studies, providing soft loans and grants to joint projects etc. The Government of the United Kingdom funds the Intermediate Technology Industrial Service (ITIS), whose functions include the development, adaptation and testing of new technologies. ITIS operates a technical enquiries service that responds to information demands from developing countries and co-operates with them in assessing the suitability of the information for their needs. In Canada, the International Development Research Centre funds research projects that are directly or indirectly assigned to increase the research and development capacities of developing countries. In these countries and a few others, the Governments also provide research grants to various institutions at home and in developing countries to develop suitable technologies and collaborate in setting up or expanding scientific and technological institutions in developing countries. The reply from Hungary indicates that despite the difficulties of developing technologies especially adapted for developing countries, owing to the different conditions, the fact that industrialization is relatively recent in this country means that the available techniques are close to the present needs and circumstances of many developing countries.

Virtually all replies report on the special attention being given to the development and transfer of energy-related technology appropriate to the needs of developing countries. In the last few years, the Governments of many developed countries have intensified the promotion of projects designed to use new and renewable sources of energy (biomass, solar and wind energy, hydropower). Since 1979, the Federal Republic of Germany provided technical co-operation in this area to over 25 countries. SIDA of Sweden and IDRC of Canada have recently launched new energy programmes; and a council for co-operation with developing countries in the petroleum sector was established by the Government of Norway in 1981.

Training and expert advice

In most technical co-operation programmes of the developed countries, training is generally the most important component. In 1980, it accounted for over 50 per cent of the total expenditure of the United Kingdom, and Austria technical co-operation for industry. In the United Kingdom, in 1980, there were 15,507 finance-assisted students and trainees (of which 25 per cent were taking courses already relevant to industry); in the Federal Republic of Germany there were 38,414; and in Austria 5,351. The budget of the Netherlands for training was $80 million in 1982. During the period 1976-1980, the training operations financed by the European Economic Community in the ACP States totalled $160 million.

Training assistance generally includes: (a) technical education and training courses in institutions of developed countries; (b) specially arranged programmes in universities, polytechnics, colleges, and other institutions; (c) on-the-job training programmes arranged by companies on a direct industry-to-industry basis; (d) organizing and financing of training centres and courses in developing countries; and (e) training of personnel in the course of construction and start-up of industrial plants.

Although most replies indicate that an extensive range of training facilities is available for developing countries, some suggest that lack of funds prevent using such facilities to their fullest capacity. Thus a few countries are changing traditional methods of training, mixing school training with training on the job, which is considered in general less expensive. For example, in 1980 the Government of the Federal Republic of Germany started a new programme to promote on-the-job training in developing countries at a cost of DM 10 million per year. The programme is designed to encourage entrepreneurs in developing countries to create new places for systematic training in the industrial and commercial spheres. Also being emphasized is the training of trainers. The Austrian Institute for Development and Technical Co-operation with Developing Countries has been conducting courses for industrial training managers for the last four years with UNIDO involvement. In close relationship to training, technical assistance programmes include the assignment of experts and consultants to projects and institutions in developing countries. In some countries, such as Belgium and Canada, technical experts represent the single most important item of the official technical assistance programmes. Technical assistance by centrally planned economies is strongly based on the work of specialists and experts who cover part of the needs of the developing countries in highly qualified personnel and undertake training of personnel on the spot or engage in educational activities. On this basis, Czechoslovakia and Hungary each send about 1,000 specialists yearly in different technical fields to developing countries.

Other technical assistance

The replies indicate a number of complementary methods of technical co-operation with developing countries. Most of them have to do with information services of different kinds. For example, the International Patent Documentation Centre (INPADOC) has been set up in Austria under an agreement with the World Intellectual Property Organization (WIPO); the Government of Switzerland supports the activities of the Technology for the People Fair, intended to provide contacts and an exchange of knowledge between industrialists of developed and developing countries; and several sectoral institutes of developed countries have compiled directories of available technologies of interest to developing countries. The MINISIS information system developed by IDRC in Canada and the Technical Information Service of the National Research Council of that country work in close co-operation with developing countries counterparts.

In sum, what the present outlook of developed countries' policies suggest is, in the first place, that some Governments have started to encourage activities of the kind needed by developing countries, such as the various programmes for the development and transfer of appropriate technologies. On the other hand, the present trends of official technical assistance to which most of such projects are linked do not allow much optimism for their consolidation and expansion in the near future.

IV. FINANCING OF INDUSTRIAL DEVELOPMENT

During the last two decades developing countries devoted approximatley 18 per cent of their GDP annually to gross domestic investment, although significant variances can be observed between countries: by 1980, the share of investment in GDP amounted to 15 per cent in the low income economies, 27 per cent in countries of intermediate income and 24 per cent in high income oil exporters.29/ The fragmentary evidence reported by the responding countries (table 9) indicates that the share of investment allocated to manufacturing varies widely from one country to another, ranging in 1980 from a low of 3.8 per cent to a high of 63 per cent, and showing an average of approximately 26 per cent. The same data also reveal significant fluctuations in the investment trends of several countries over the last few years.

Investment is financed by domestic savings or foreign inflows of capital. The relative importance of each source tends to vary according to the levels of income. Thus, while in the last decade richer developing countries have managed to supply up to 80 per cent of their gross investment requirements through domestic savings (which in oil-exporting countries actually exceeded investments), low-income countries were unable to devote a high share of their savings to investment.30/ Foreign investment is for these countries the most important source of capital.

The information collected from the replies of Governments on the actions taken to mobilize domestic and external financial resources for the industrialization of developing countries is reviewed below. Developing countries were particularly asked about measures to develop their financial systems and institutions, while developed countries provided information on flows of financial resources to the former. The analysis starts by a brief review of the latest trends in foreign financing.

The contribution of external financial resources

Changes in external financial flows and sources

The last decade has witnessed significant changes in the sources supplying external finance. As a result of this evolution, developing countries sharply increased their participation in the international financial markets. Between 1970 and 1977, total flows to these countries increased more than fourfold, at a growth rate of 22 per cent.31/ During this period, important changes in the origin of such resources took place, one of the most remarkable being the dramatic fall in the flows coming from DAC countries, matched by increasing flows from non-DAC countries, particularly from the Organization for Petroleum Exporting Countries (OPEC), and more importantly, by a rapid increase in Euro-currency borrowing. Until 1978, increasing financial transfers from commercial banks provided foreign exchange well in excess of developing countries' total debt-service obligations.32/ In 1970, this component accounted for only 3.6 per cent of total flows, rising to 27.8 per cent in 1977. Yet after 1978 the composition of international bank financing suffered important modifications: a growing proportion of loans, which were previously untied and provided flexibility to the management of balance of payments, is now concentrated on export credits tied to specific supplies and financing of specific projects. These changes caused a severe impact on the liquidity positions of many developing countries.32/

The second important change was the diminishing role of aid. Between 1970 and 1979, the share of ODA in total financial flows fell from 42 per cent to 35 per cent.33/ Although such a fall is basically due to the strong growth of non-concessional flows, rather than to any decay of ODA (aid flows rose

Table 9. Share of the manufacturing sector in total investment

(Percentage)

Country	1975	1978	1979	1980	1985 (Planned or estimated)
Bangladesh	...	13.63 a/	...	16.95 b/	...
Bolivia	18.8	12.0	14.3	...	...
Burundi	43.4	46.4	40.6	45.5	53.5
China	59.0	57.0	51.4	50.8	...
Costa Rica	0.9	16.2	28.8	...	...
Cyprus	...	14.0	12.0	10.0	...
Ecuador	42.4	43.6	62.9	63.1	...
El Salvador	22.1	...	...	...	...
Ethiopia	...	...	...	7.0 c/	...
Guatemala	10.0	7.0	8.0	8.0	8.0
Guyana	...	11.2	12.3	23.0	...
India	...	...	26.8 b/	...	25.0
Indonesia	11.1	12.4	13.0	14.3	18.0
Iraq	22.8	15.9	...	...	...
Lesotho	1.9	7.7	8.2	9.4	8.0
Malta	39.3	27.9	33.6	36.9	18.2
Mauritius	25.7	15.5	12.6	12.4	...
Mexico	42.3	42.1	44.4	40.5	...
Nigeria	...	...	...	16.3 d/	13.5 e/
Oman	...	5.2	3.0	3.8	12.1 e/
Pakistan	15.5	28.7	28.5	24.5	...
Panama	19.5	19.8	19.3	20.8	31.7
Peru	22.8	21.1	22.1	23.1 f/	...
Rep. of Korea	21.1	24.0	23.0	14.7	24.0
Romania	50.2	51.9	51.9	51.6	54.7
Rwanda	...	...	...	...	22.7 g/
Senegal	...	...	...	...	20.5
Singapore	12.7	13.9	20.7	18.8	...
Thailand	71.6	41.2	33.4	55.6	...
Togo	...	51.0	39.0	39.0	...
Tunisia	...	23.5	18.6	...	...
Turkey	30.2	23.7	26.3	27.1	...
Uruguay	14.8	16.4	...	...	...
Venezuela	7.0	4.4	8.1	5.8	5.8
Yugoslavia	39.1	38.5	36.4	37.2	40.6
Zaire	100.0	6.3	22.3	...	...
Zimbabwe	25.0	13.5	13.4	20.9	22.7

a/ Average rate for the period 1973-1978.
b/ Average rate for the period 1978-1980.
c/ Average rate for period 1974-1980.
d/ Average rate for period 1975-1980.
e/ Average rate for period 1981-1985.
f/ Tentative.
g/ In relation to identified investment for period 1982-1986.

markedly during the decade, at twice the growth rate recorded in the 1960s), since 1980, the increase in aid remained weak. For the poorer developing countries, however, ODA continues to play a crucial role, providing more than 80 per cent of their external financing requirements.

With regard to private direct investment, the flows to developing countries increased at the unimpressive rate of 2.9 per cent yearly between 1970 to 1977,[34/] maintaining the share of private direct investment in the financing of the more advanced developing countries. In contrast, the share of direct investment in the poorer countries tends to decrease.[35/]

Finally, the recent period was characterized by a rapid rise in the levels of debt and debt services of developing countries, largely explained by the relative increase in private sector sources. In 1981, total debt outstanding in developing countries rose to $581 billion and interest payments to $51 billion. The latter increased from about one third of total debt services in 1975 to almost one half in 1981. In view of the significant role of ODA in softening the burden of debt service,[36/] its relative decline in the total resources available is not a promising trend, particularly for the less advanced developing countries.

Foreign financing of industry

The evaluation of the actual extent of foreign financing of the manufacturing industry in developing countries is complicated for several reasons. For certain sources the industrial component is not identified, such as in the case of multilateral aid, and for other sources, such as direct foreign investment, the information is available only for a few countries of origin. The UNIDO questionnaire tried to obtain such information by asking developed countries about the recent financial flows to the manufacturing sector in developing countries through direct investment, multilateral institutions and bilateral ODA. Unfortunately the data obtained are in most cases too sketchy and partial. Yet an approximate outlook can be obtained with the help of other sources of information.

In the first place, the overall contribution of ODA to the financing of the manufacturing industry is low: $1.35 billion or about 8.7 per cent of the bilateral ODA of DAC countries went to industry, mining and construction in 1979.[37/] The bulk of bilateral ODA is devoted to public utilities (27.5 per cent), agriculture (18 per cent) and the social sector (28.4 per cent), including education and health services. These three sectors absorb an even larger share of the official assistance provided by international financial institutions. The contribution provided to the physical infrastructure and the development of human resources is significant also for the support and development of the manufacturing sector. Besides, as indicated in some replies (see table 10), the ODA contribution of a few developed countries to directly productive activities has increased in the last few years. But the relevance of these flows is still secondary in comparison with other sources of finance, and their future will depend on the prospects for a significant increase in real terms of the aid programmes, which to a large extent will depend on the recovery of the industrial countries.[38/] In the 1980s the poorer developing countries will continue to rely almost entirely on ODA to supplement their scarce domestic resources. Yet the bilateral ODA flows to low-income countries, which accounted for more than 80 per cent of their external financing in 1980, are clearly decreasing as a percentage of the total flows over the last decade.[39/] For these countries, the role of multilateral aid programmes has gained increased importance. However, a marked slow-down in DAC countries to such agencies appears to have been under way since 1978.[40/]

Table 10. Allocation of bilateral ODA commitments to the industrial, mining and construction sector, 1979-1980

(In reporting countries)

		(In millions of US dollars)	As a percentage of the total bilateral ODA commitments
Austria	1979	4.1	5.9
	1980	70.8	50.6
Belgium	1979	4.8	1.6
	1980	3.1	.9
Canada	1979	15.1	2.9
	1980	16.9	4.2
Denmark	1979	17.3	11.2
	1980	1.9	1.3
Finland	1979	16.0	54.2
	1980	46.2	48.3
Germany, Federal	1979	449.8	15.6
Republic of	1980	310.6	10.4
Italy	1979	8.6	17.4
	1980	8.7	11.6
Netherlands	1979	79.3	7.4
	1980	56.1	4.5
Norway	1979	18.0	9.3
	1980	29.8	14.2
Sweden	1979	110.0	23.9
	1980	136.4	46.8
Switzerland	1979	16.2	13.8
	1980	4.3	5.5
United Kingdom	1979	72.2	4.9
	1980	56.7	4.9

Source: Organization for Economic Co-operation and Development, *Development Co-operation, 1981 Review* (Paris, 1981), table B.6.

The United Nations Conference on the Least Developed Countries held in Paris in September 1981 adopted a substantial New Programme of Action for the 1980s. The Programme expresses the intentions of developed countries to increase the volume of their bilateral and multilateral ODA to the least developed of the developing countries, which is expected to lead to a doubling of aid flows to such countries by 1985. Virtually all countries participating in the third monitoring exercise reaffirmed their commitment to the goals of the Programme. The priority accorded to the poorer countries is reflected in the data supplied by some donors. For example, Norwegian ODA disbursements to the least developed of the developing countries at present amounts to 0.27 per cent of GNP, which is the highest share in any industrialized country. Net bilateral ODA from the United Kingdom to these countries increased from 25 per cent of the total in 1979 to 30 per cent in 1980. Most developed countries are presently focusing their aid programmes on Africa. In general, the emphasis is on basic needs: agriculture, food, infrastructure and social services. Yet in some cases attention is also given to industry. The action of most of the development financial corporations (see chapter II), which promote productive projects with the participation of enterprises from the donor and recipient countries, is clearly focused on the least developed of the developing countries: in 1980, the Federal Republic of Germany disbursed DM 200 million for assistance to the industry, mining and construction sectors of the most seriously affected countries; DM 120 million were made available for industrial projects in Africa. In the case of Sweden, assistance to the industrial sectors of countries such as Guinea Bissau, Mozambique and and the United Republic of Tanzania, was started or increased during the last few years.

In comparison to ODA, a higher proportion of direct private investment was devoted to the manufacturing industry. After relative stagnation from 1974 to 1977, direct foreign investment flows grew at a significant rate from 1977 to 1979, to fall again in 1980. Although little information is available about the manufacturing component of direct investment, UNIDO has estimated that about 37 per cent of the flows has been dedicated to industrial projects during the last decade.[41/] For 1979 it would have represented an inflow of about $3.3 billion. But in contrast to ODA flows, private investment is clearly concentrated on the larger and more rapidly growing markets in the developing world. In fact, by 1971, 20 developing countries accounted for about two thirds of the total private foreign investment stock in the third world; by 1978, such shares had increased to nearly three quarters.[42/] Paradoxically, least developed of the developing countries are not only the ones that urgently need private industrial co-operation, but they have also adopted (see chapter I) the most liberal policies and regimes to attract foreign investors (very often following the recommendations of developed countries) only to witness the bulk of direct investment being further absorbed by richer developing countries, which, in most cases, have introduced strict regulations and controls, have developed a reasonably modern local entrepreneurial sector and have been able to mobilize a satisfactory level of domestic resources for productive activities. Moreover, the open-door policies of many less advanced developing countries usually provide for tax benefits and other concessions that tend to neutralize the predominantly financial effect of direct foreign investment, based on the taxation of profits of foreign enterprises. For the main host developing countries, however, the tax effect of foreign investment could be significant. UNIDO estimated that for 1976, it would have been slightly less than the total ODA from DAC countries received in that year.[43/]

Another important aspect to be considered is the volume of domestic savings absorbed by credits to foreign subsidiaries. It appears that not less than 25 per cent of the total financing of such enterprises is served by host country credit in developing countries.43/ Although a number of Governments have adopted certain restrictions with regard to the access to long-term credit of foreign enterprises, such as in Latin America and certain South-east Asian countries, many countries, and particularly the least developed of the developing countries, have a highly flexible policy in that regard.44/

Regarding the role of foreign borrowing, data from the World Bank (see table 11) show that the remarkable growth of the volume lent to developing countries over the last decade continued until 1979. After a sharp final jump in 1978, when the borrowed sum almost doubled the 1977 figure, the growth virtually stopped in 1979, to fall by almost 20 per cent in 1980. Although not disaggregated by category of borrowing countries, the World Bank figures (see table 11) show that the average shares of borrowing allocated to manufacturing in 1980 were 14.7 per cent in the case of foreign bonds, 20 per cent for international bonds, and 16.4 per cent for Euro-currency credits. Despite the relatively high share of international bonds going to manufacturing, the absolute volume of loans channelled through Euro-currency credits continues to be considerably greater than the other sources. However, the process of the increasing borrowing of the developing countries in the bond market seems to have been interrupted in 1980.

It appears that the spectacular opening of the international capital market for developing countries is already drying up. The less advanced countries that did not benefit from that process will continue to depend in the coming years on the uncertain evolution of ODA; and the more advanced developed countries, some of them highly compromised in a persistently expensive capital market, despite the declining trend of borrowing, will have to soon find ways for adjusting their financial patterns and sources. In any case, the alternative role of increased domestic savings seems to be one of the major ways to be explored and expanded by all developing countries in the coming years.

Mobilization of domestic financial resources

Over the last two decades, the share of national savings in the GNP of developing countries has been steadily increasing. It increased from 18 per cent from 1961 to 1965 to 25.3 per cent in 1975.45/ The progress has been particularly remarkable in South-Saharan Africa, East Asia and the Pacific, and the Middle East. Yet, as indicated above, the share of national savings varies significantly between countries: in 1980, it was only 7 per cent in low-income countries (excluding China and India), 25 per cent in middle-income economies, and 62 per cent in the high-income oil exporting countries.46/

Most developing countries have planned to raise the level of domestic savings. In Pakistan, these are projected to increase from 12.6 per cent of GNP in 1977/78 to 16 per cent in 1982/83, and in Zimbabwe from 15 per cent in 1980/81 to about 20 per cent in 1983/84. In the Republic of Korea, the domestic savings ratio is expected to increase from 22.3 per cent in 1981 to 29.6 per cent in 1986, while in India savings as a percentage of corresponding disposable income are expected to rise over the present plan period from 25.5 to 34.5 per cent for the public sector and from 20.2 to 22.3 per cent for the private sector.

Table 11. Borrowing in international capital markets, 1977-1980

(In millions of US dollars)

	Foreign bonds			International bonds			Total bonds			Euro-currency Currency	Total bonds and credits
	Public	Private	Total	Public	Private	Total	Public	Private	Total		
Developed countries											
1977	4,662.2	5,153.7	9,815.9	10,673.3	2,302.8	12,976.1	15,335.5	7,456.5	22,792.0	11,055.1	33,847.1
1978	8,206.5	4,668.7	12,875.2	7,556.7	2,123.8	9,690.5	15,773.2	6,792.5	22,565.7	31,343.5	53,090.2
1979	6,147.4	5,801.1	11,948.5	10,805.6	1,800.1	12,605.7	16,953.0	7,601.2	24,554.2	19,041.8	43,596.0
1980	5,105.0	3,594.8	8,699.8	15,424.1	2,145.5	17,569.6	20,529.1	5,740.3	26,269.4	29,867.8	56,137.2
Developing countries											
1977	1,226.4	723.0	1,949.4	2,405.0	401.2	2,806.2	3,631.4	1,124.2	4,755.6	20,145.2	24,900.8
1978	1,459.9	1,306.1	2,766.0	2,408.5	916.6	3,325.1	3,868.4	2,222.7	6,091.1	38,247.5	44,338.6
1979	1,182.3	842.9	2,025.2	1,742.3	247.0	1,989.3	2,924.6	1,089.9	4,014.5	43,260.2	47.247.7
1980	885.7	319.5	1,205.2	1,619.4	42.9	1,662.3	2,505.1	362.4	2,867.5	37,192.1	40,059.6
Oil-exporting countries											
1977	-	-	-	90.9	42.1	133.0	90.0	42.1	133.0	3,320.1	3,453.1
1978	-	43.2	43.2	25.0	62.0	87.0	25.0	105.2	130.2	2,663.6	2,793.8
1979	-	14.7	14.7	-	-	-	-	14.7	14.7	661.0	675.7
1980	-	-	-	-	-	-	-	-	-	407.7	407.7

Source: World Bank, Borrowing in International Capital Markets (EC-181/802).

The improved mobilization of domestic savings involves the strengthening of the financial system through macro-economic policies and institutional mechanisms. In less advanced developing countries, the intermediary role of the banking system, and in particular the policy of the Central Bank, is still extremely important. While in certain countries, such as Benin and Ethiopia, the re-organization of the financial sector involved the nationalization of the banking system and the centralization of decision-making, in other countries the tendency seems to be towards a greater decentralization of the system through more autonomy of commercial banks (Costa Rica, Nigeria). In many poor countries commercial banks are already important channels for the transmission of central bank credits to the productive sector. Post offices also play an important role in collecting personal savings. In several of the less advanced countries, banks are opening branches in different locations of the country in order to tap funds from rural areas and small savers. In countries such as Sri Lanka and Sudan, savings banks were established with that purpose.

A number of replies report on different policy measures that are being taken in the fiscal and monetary fields, in order to attract more funds for lending to industry.

Although, as indicated by the report from India, the scope for raising additional revenues through mere changes in tax rates is rather limited, this country and several others (Cyprus, Kenya, Madagascar) emphasize the need to reduce tax evasion, rationalize tax laws, widen the tax base, and improve the tax administration.

Another aspect emphasized by a number of replies is the objective of improving the efficiency in the use of resources, and in particular the financial return of public sector undertakings through appropriate pricing policies. A reduction in the growth rate of expenditure and in government subsidies is reported by, inter alia, India, Pakistan, Tunisia, Turkey, Uruguay. The present policy of Romania emphasizes the need to reduce production costs and raise labour productivity.

Most countries are already aware of the serious consequences of inflation of the level of money - denominated savings. During the last decade, in some developing countries such as those in Latin America, inflationary pressures were fought by imposing maximum interest rates. As these became negative in real terms, financial saving was discouraged.47/ At present, however, monetary stability is an important aim of the policies of many Governments, and major policy measures are being introduced to bring inflation under control, thus giving the savers a positive return in real terms. In several Latin American countries, such as Brazil, Chile, and Uruguay, various systems for index-linking or partial liberalization of interest rates were recently adopted. A policy of increasing deposit rates has now been introduced in several developing countries. In some, the financial system was completely reformed and total freedom was allowed to interest rates (Chile, Turkey, Uruguay). The heightened lending rates resulting from increased deposit rates have been controlled in certain cases by subsidizing commercial banks (Indonesia) or allowing the terms of indexing to lag behind the actual rate of inflation (Brazil).48/

In countries where the private sector finances much development, the ability to attract increased private savings into productive investment is important. Yet in most developing countries the available financial assets are generally inconsistent with long-term credit policies. Time deposits are still negligible in most developing countries, or when they have expanded, inflationary pressures have led the market to concentrate on short-term operations. Several countries, however, have tried or are planning to introduce new instruments for encouraging new voluntary saving, such as savings and loans associations, deposit certificates of participation, convertible bonds and pension funds. For example, the Unit Trust of India was established many years ago to channel savings from the community into investments in corporate shares and debentures, offering a safe, regular and increasing return to the unit holders. More recently, several Latin American countries, for example Chile, Mexico, Peru, and Uruguay, have promoted the creation of private financial corporations ("financieras") that specialize in medium- or long-term lending, underwriting securities and leasing. In the case of Mexico, for example, the financieras finance themselves by issuing long-term, fixed-yield claims with a comparatively high return and guaranteed repurchase at par. These institutions have contributed to a successful development of a securities exchange market in Mexico, in contrast to most other developing countries, which, with few exceptions - Brazil, Singapore - have so far been unable to launch a significant stock market owing to scale limitations and the impact of inflation. Several replies, including those of Bolivia, Honduras, India and Tunisia, indicate the intention of stimulating stock exchange activity.

Financial development instruments

Various United Nations resolutions urge that steps be taken to enable developing countries to locate and invest financial resources with adequate terms and conditions for their industrialization programmes. In particular, the New Delhi Declaration and Plan of Action [17/] stresses the need to establish and strengthen national development financial institutions.

In many developing countries, the banking system is the main source of financing for industry, but as mentioned above, its credit is almost entirely short-term because the banks usually lack the incentives, the means and the skills to deal with long-term credits, or because they are prevented from doing so by law or custom: for example, in many African countries the late nineteenth-century tradition that deposit-taking assets should be "self-liquidating" over the short term is still present in the banking legislation.[49/] Moreover, in countries with a large rural population the banking system faces various organizational problems. In addition, deposit-money banks tend to look to the interests of their main clients, which in many developing countries are the foreign investors and the government departments that have to finance their current expenditure. For these reasons, many developing countries have established specialized credit agencies to to fill important gaps in the capital market. Under the names of development banks, state investment corporations and private investment houses, the common purpose of these institutions is to make funds available for industry on terms more favourable than would prevail if markets were responding solely to private pressures.

The replies to the UNIDO questionnaire show that the process of establishment of industrial development institutions in developing countries has continued in the recent period. There is virtually no developing country without at least one of these agencies at the present. Among the less advanced developing countires, Burundi reports the recent creation of the Central Fund for Mobilization and Finance (specialized in the state sector) and the Burundi Finance Company; Comoros established in 1982 its first development finance corporation, Madagascar refers to the creation of the National Bank of Industry, and Zimbabwe announces the establishment of a national development bank. But also countries with a larger or longer industrial record have been creating new specialized agencies. For example, in order to respond to the increased demand of sophisticated financial services for the industry, the Government of the Republic of Korea created in the late 1970s two new development banking institutions, the Export Import Bank and the Long-Term Credit Bank. In the last few years, the Government of Mexico introduced several important financial institutions, such as the Capital Goods Development Programme managed by Nacional Financera (the main State Development Agency), and the system of "multiple banks". In 1981, the National Development Corporation of Peru was set up with powers to direct the financial support of business. In Turkey, specialist public and private banks, such as new "merchant banks" in the export promotion areas, were established to assist the development process. Oman, Pakistan, Tunisia and Upper Volta are among the other countries that have added new development agencies to the financial system.

In order to improve the efficiency of the existing infrastructure, important reforms have been undertaken in a number of institutions. The Development Bank of Niger has undertaken a programme of decentralization of its agencies and staff training; the office for the Promotion of Industry of Upper Volta has been endowed with a Participation Fund designed to facilitate the access to credit of local investors; the State banks of Costa Rica are being gradually transformed into development banks; and the organic law of the Industrial Development Bank of Peru was revised in 1981 to confer greater autonomy on this institution and enlarge its field of action. Furthermore, significant resource increases were granted to the development of financial corporations in Guyana, Indonesia, Kenya, Republic of Korea, Senegal, Singapore and Sudan.

With the purpose of improving access to financial resources of the sector by small and medium-sized enterprises, several countries have adopted specific measures in their financial system. In Mexico, two new funds were established with that objective in 1980; in the Republic of Korea, the Small and Medium Industry Bank increased substantially its capital and established a new investment department that can take equity positions in qualified enterprises. Special credit schemes for smaller industries have been created or expanded in Guatemala, Guyana, Honduras, India, Peru, Sri Lanka and Thailand.

The role performed by industrial development financial substitution is becoming more complex and diversified. The reply from India, whose financial system is among the most diversified in the developing world, reports on the existence of a wide range of functions performed by its several specialized institutions. The Long-Term Operations Fund created by the Central Bank is utilized for making loans for the purchase of stocks, shares, bonds or debentures by the financial institutions. The Industrial Credit and Investment Corporation specializes in finance for the foreign exchange component of industrial projects; the Industrial Development Bank provides financial support to other development banks and also fills the gaps in the financing of larger projects that deserve sizeable loans or equity support; the Industrial Reconstruction Corporation is devoted to the revival of "sick" units; the General Insurance Corporation is participating in consortia with other institutions in the financing of new projects through underwriting new issues, subscription of debentures etc. Recent adjustments in the Korea Development Bank have expanded its activities in order to provide the Government, corporations and banks with various financial services such as economic and technical feasibility studies, planning, and project analysis techniques. The recent strengthening of the Societé nationale d'etudes et promotion industrielles of Senegal has the purpose of allowing it to support industrial projects through participation and guarantees. In the less advanced developing countries, development banks play a crucial role in filling the entrepreneurial gaps, not only by providing a major share of credits and equity finance to a vast majority of the new industrial projects, but also by contributing to organizing and managing the new companies being created.

In many developing countries development banks have also performed an important function in tapping international capital markets and channelling additional resources at concessional terms from international organizations or the special lending institutions of developed countries. Several of the less advanced countries report on new credit lines arranged through development finance agencies with major international institutions such as the Inter-American Development Bank, and the European Development Fund of EEC.

All these promising developments, while indicating a fast process of modernization of the financial infrastructure in developing countries, have not yet reached the level of mobilization of domestic finance needed to achieve sustained growth. Such levels continue to be discouragingly low in the least developed of the developing countries, and insufficient in most nations of the third world. The vast majority of developing countries will continue to depend on the availability of external finance for their industrialization efforts. The latest trends in the international capital markets and ODA of developed countries do not auger well, however, for the expansion and perhaps the maintenance of the current flows.

V. INDUSTRIAL EXPORT POLICIES

One of the strongest common denominators in the present industrial strategies of developing countries is, as was mentioned in the first chapter of this report, export orientation. There seems to be no doubt on the contribution that manufactured exports can make to development by providing the foreign exchange earnings required to pay for capital goods and technology for industry; by overcoming the constraints of small domestic markets; and by enhancing the development of the countries' comparative advantages in different sectors.50/ Since the mid-1960s more and more developing countries have been introducing trade liberalization and export promotion policies as a basis for their industrialization strategies. Large countries such as Brazil, India and Mexico, with a relatively long tradition of industrialization, started to face the limits of import substitution strategies and were forced to look for external markets; several smaller and younger developing countries were stimulated from the start by the successful experience of countries such as Hong Kong and Singapore. The machinery of industrial policies and instruments in most countries was rapidly displaying different sorts of measures and mechanisms to provide for the expansion of "non-traditional" exports. Whatever their relative incidence, the available evidence reveals that such strategies were followed by an impressive and long period of growth in the export of manufactures of developing countries: between 1966 and 1976, the volume of such exports grew at the rate of 15.3 per cent, or more than double the rate of growth in manufacturing value added at constant prices.51/ As a consequence, the share of manufactures rose from 19.5 per cent of total exports of developing countries (excluding fuels) in 1960 to 45.1 per cent in 1976.

By that time, the crucial importance of export-oriented strategies had been decidedly supported by a number of United Nations declarations and programmes, and particularly by the Lima Declaration and Plan of Action, which insisted upon the formation and strengthening of appropriate incentive measures to encourage the export of manufactured and semi-manufactured products. The end of the 1970s, however, witnessed a growing trend of protectionism in developed countries, which had become the most important markets for the developing countries exports of manufactures (by the mid-1970s more than 60 per cent). Unfortunately, such phenomena seem to be worsening and putting at bay the efforts of developing countries in adjusting their structures and policies according to the well-established rationale of trade liberalization. For this reason, the New Delhi Declaration and Plan of Action, and a number of subsequent international resolutions, urged developed countries to adopt programmes to eliminate the adverse measures taken against the export-led industrialization process of developing countries.

It is against this background that the UNIDO questionnaire consulted both developing and developed countries on the progress achieved in recent years towards a greater expansion of the formers' export of manufactured goods, and the policies and measures thereon adopted at the national and international levels.

Export promotion in developing countries

The weight accorded to import substitution and export promotion in the industrial sector varies between countries, from those in which the strategy is based on the establishment of industries predominantly serving the domestic market, to those that base industrial growth on the expansion of exports. In most developing countries, however, there is a noticeable effort to accommodate both objectives.

The overall impression derived from the replies indicates a stronger awareness on the part of Governments of the need to increase the outward orientation of the manufacturing industry, and to improve the existing machinery of incentives. For example, China admits that the present structure of exports, still based on primary products and certain light industries, cannot meet the requirements for the development of the national economy, so the objective is to reorient exports towards manufactures of a higher value added to earn more hard currencies for the country. The replies from Ethiopia, Kenya and Thailand emphasize the need to diversify both the composition and the destination of manufactured exports. In the case of Thailand, whose Development Plan has set up an annual growth rate of 26 per cent for manufactured exports, a complete revision of the system of incentives was decided on in order to improve the performance of the industrial sector. Many replies emphasize the exploitation of comparative advantages, which in most cases involve a major role of the resource-based industrial exports, including those utilizing abundant raw materials and labour. In some of the more advanced developing countries, comparative advantages are now predominantly seen in skill-intensive industries, such as machinery and electronic industries (Republic of Korea).

Two major developments reflecting the increasing export orientation of developing countries can be grasped from the replies to the UNIDO questionnaire. On the one hand, there is a clear trend towards a greater systematization and professionalization of the export promotion system. In the last few years, many developing countries (including Bolivia, Costa Rica, El Salvador, Honduras, Panama, Peru, Thailand, Upper Volta) have been adopting new laws of export promotion with the objective of improving and co-ordinating the different incentives and procedures. At the same time, virtually all countries have now created specialized administrative bodies dealing with the export of manufactures. Organized as Departments of Trade, decentralized agencies or public enterprises, these bodies carry out a number of roles with the objective of promoting exports, ranging from policy-making and the administration of incentives and credits, to the provision of technical services. On the other hand, the general economic policies of many developing countries are increasingly taking into account the objective of increasing the competitiveness of the export industries. Over the years, a number of countries have been moving away from quantitative trade controls to an import policy based on tariffs. More recently several countries, such as Chile, Costa Rica, Mexico, Republic of Korea, Sri Lanka and Uruguay, have been reducing the levels of tariff protection with the purpose of introducing greater foreign competition and improving the quality of domestic production. An increasing realism of the exchange rate policies and relaxation of exchange controls can be observed in a number of countries (Kenya and Sudan, <u>inter alia</u>, mention the devaluation of local currency among the main incentives provided to exporters). Also tight monetary policies have been used in countries such as Turkey to force domestic firms to seek external markets. The investment environment in many countries, especially in those traditionally characterized by strict licensing and controls over the industry, is now offering an increasing relaxation of administrative proceedings, including those concerning export trade.

Although in many developing countries the first explicit regimes of export promotion date from the early 1960s and even earlier, there has been a steady process of modernization of the institutional and legal machinery. Such constant changes have often affected the stability of incentives, but in general they provided a gradual improvement of the available instruments.

Export promotion is presently conducted through a variety of ways: (a) general incentives tending to increase the profitability of exports by increasing earnings or reducing costs of individual exporters; (b) compulsory and semi-compulsory export programmes; (c) market research and information services; (d) private and state-owned trading companies; (e) indirect support through technology and manpower development; and (f) use of general policies such as exchange rates and tariff protection.

The main measures taken by the reporting countries are reviewed below.

Tax and duty concessions

Virtually all countries provide at present a host of fiscal advantages of general application to all exporters or to certain sectors. Traditional incentives include exemptions or reductions on income taxes, duty free or reduced entry for imports used in production for export etc. More recently other incentives have been added, such as certificates or bonds to pay taxes, exemptions from indirect taxes on imports purchased for exports, subsidies to freight charges and advertising expenses. A number of small and medium-sized countries have also emphasized the role being played by trade liberalization schemes arranged in the context of regional integration programmes with other developing countries (Burundi, Costa Rica, El Salvador, Senegal, Togo, Zimbabwe).

Export credit and guarantees

Most countries have introduced special credit schemes, frequently entrusted to ad-hoc funds or financial bodies, to finance the export of manufactures. In several of the more advanced developing countries sophisticated facilities are already in operation. In India, a standing committee on export finance was set up in the Reserve Bank in 1975 to take initiatives and adopt guidelines for export credit policies; in addition, the Industrial Development Bank provides a wide range of financial facilities in the form of bid bonds, guarantees and term credit for the export of goods, and the Export Credit and Guarantee Corporation provides insurance and bank guarantees covering, inter alia, exchange fluctuation risks. In the Republic of Korea, an Export Import Bank was recently established to facilitate medium- and long-term credits to domestic suppliers or foreign buyers, and export insurance services. In Mexico and Peru, similar roles are played by the Fund for the Promotion of Exports of Manufactured Goods (FOMEX) and the Fund for the Promotion of Non-traditional Exports (FOPEX). A number of countries with lower resources have also adopted or are planning to introduce export credit and/or guarantee facilities, as reported by the replies from Cyprus, Ecuador, El Salvador, Guyana, Kenya, Senegal, Sri Lanka and Tunisia. In Sri Lanka, for example, an Export Development Fund has been established for the financing of an Export Expansion Grants scheme, and the purchase of equity capacities in projects with a long gestation period.

Export programmes

A number of countries have experimented with different schemes for exercising pressure on domestic producers to export. In Brazil, the approval of industrial projects in certain sectors or the access to certain incentives was conditioned to engagements on quantitative export targets. In India and Mexico, the possibilities of expansion of plants in certain sectors was equally submitted to detailed export compromises. Several Latin American countries adopted a system of "compensated foreign exchange balance", by which the authorizations to import depend on the export earnings of the firms. In order to mobilize the export potential of subsidiaries of transnational corporations, certain countries with severe controls and regulations on foreign investments are now offering important exemptions, for instance, with regard to the general obligation of sharing the equity and control of the company with local investors. For example, in the Andean Group countries all foreign companies that export at least 80 per cent of their production to extra-zonal markets are exempted from the general requirement to gradually transform into joint ventures. Similar trends are noticeable in Brazil, India, Republic of Korea etc.

Export processing zones

Not less than 40 developing countries have created export processing zones, and many others are currently planning to introduce this particular kind of industrial estate, usually consisting of a geographically separated area, the purpose of which is to attract export-oriented industries, mainly subsidiaries of transnational corporations, by offering them an especially favourable package of investment and trade conditions.52/ In particular, the export processing zones provide for the importation of goods to be used in the production of exports on a bonded duty-free basis. They also provide buildings and services for manufacturing. Although export processing zones should be distinguished from the traditional free ports and free trade areas, engaged in commercial activities, some of these are concerned with manufacturing as well. In addition, several developing countries are providing similar benefits to enterprises, regardless of their origin or physical location, that engage to export 100 per cent of their production.

Export processing zones have proliferated in countries of Asia and more recently in Africa and Latin America. Among the responding countries, Chile, Costa Rica, El Salvador, Honduras, India, Mauritius, Mexico, Republic of Korea, Senegal, Singapore, Sri Lanka and Tunisia have set up export processing zones in one or various sites of their territories. Sri Lanka's Greater Colombo Economic Commission is a good example of the impressive array of support facilities and incentives that can be offered to investors through these schemes. In addition to the normal facilities of export processing zones - rapid processing of applications, readily available sites with full infrastructure and business support facilities, exemptions from import duties and from normal import and export and exchange control procedures - the Commission offers relaxations of foreign investment restrictions, a substantial reduction in taxes and access to foreign currency banking at low interest rates.

Marketing and technical support

As mentioned above, one of the most significant recent developments in developing countries is the proliferation of decentralized institutions specialized in the promotion of external trade. One of the roles that characterizes virtually all export development centres is the encouragement of export potential and competitiveness through professional services in the marketing and technical spheres. Typically they are in charge of the organization of business missions abroad, of carrying out investigations to identify new markets, and of the promotion or the participation in trade fairs and exhibitions. In recent times they have been developing more sophisticated functions. For example, the National Agency for Export Development of Indonesia and the Kenya External Trade Authority are increasingly dedicated to the advice and training of exporters in aspects such as quality control packaging and publicity.

Another instrument that a number of developing countries have introduced is the trading companies or export houses that operate as agencies for the external commercialization of domestic production. The contribution of trading companies is already very important in countries such as Brazil and India. In Brazil, for example, the State petroleum company has established INTERBRAS, a trading enterprise that takes care of the marketing of a diversified line of manufactures. In India, the State Trading Corporation undertakes exports on its own and also provides services to private export organizations. In other countries, such as Mexico and Thailand, efforts have been made to encourage the formation of groups or consortia of private exporters of manufactures.

Simplification of rules and procedures

With the objective of reducing indirect costs of exports, several Governments have recently decided to relax, liberalize or simplify the export and import regulations and administrative procedures that involve varying levels of red tape. The replies from Chile, India, Pakistan, Republic of Korea, Senegal, Thailand and Uruguay emphasize this.

The performance of export promotion

An evaluation of the effectiveness of the manufactures export policies of developing countries is, apart from its complexity, beyond the purpose of this monitoring report. However, it can be said that the policy frame of most developing countries has been evolving towards a greater encouragement of exports through an increasingly diversified number of incentives, and that these incentives tend to become increasingly sophisticated. Thus, from traditional tax and duty schemes, many countries have moved to a larger use of specialized credit, then to the provision of packages of subsidies in the form of export processing zones or through the action of multi-purpose export development agencies. Recently, several countries are making more use of macro-economic policies, such as the level of tariff protection and exchange rates, and of indirect measures of incentives through the promotion of technological innovation, quality improvement and marketing awareness. This increasingly export-oriented trend does not conceal the persistence in many countries of obstacles to exports derived from the difficulties to abandon deeply rooted import substitution strategies, the permanent change of rules and incentives, and the deficiencies of policy instruments still insufficiently applied or lacking efficient financial and administrative support. None the less, many developing countries are making a considerable effort of adjustment in their economic policies and instruments.

The available evidence indicates that a remarkable growth of the export of manufactures has followed since promotional policies were put to work in developing countries, leading to a significant increase of the share of such goods in total sales abroad. The data provided by the responding countries indicate that this overall tendency is still present (see table 12, part A). The share of manufactures in total exports show all possible variants, ranging widely, in 1980, from almost 95 per cent (Yugoslavia) to less than 1 per cent (Guyana). Yet for most countries the manufactured component of exports in increasing, and for some of the less advanced developing countries the share is already remarkable, such as in the case of certain Central American and African countries (Guatemala, Senegal). Some important exceptions to the general tendency (Mexico, Nigeria) should be viewed in the light of the huge incidence of mineral fuels and related materials in the recent exports of both countries.

As already noted, there has been a steady increase in the export of manufactures to the developed countries. Developed market economies absorbed 55.8 per cent of the developing countries exports in 1963, 59.7 per cent in 1970 and 61.8 per cent in 1979. Yet, in terms of growth performance, the South-South trade has proved to be the most dynamic in recent years, the annual rate increasing from 10.2 per cent from 1960 to 1970, to 15.5 per cent from 1970 to 1977 (against 10.3 per cent and 10.2 per cent, respectively, for the exports to developed markets).[53/] By 1979, developing countries were selling 36 per cent of their industrial exports to other developing countries. Unfortunately, this item of the UNIDO questionnaire was reported by only a few countries (see table 12, part B); none the less the high shares achieved by the reciprocal trade among certain developing countries are well illustrated in several cases, including small countries such as Bolivia and El Salvador (where the influence of the regional integration schemes is crucial) and larger countries, such as Brazil, that also rank high in the industrial share of exports.

The import side (table 13) reveals a persistent high share of manufactures in the total supplies of developing countries. Only a few countries have managed to reduce the incidence of imports of manufactures below 50 per cent, and in some of these cases, as in Brazil, the change can be explained by the sharp increase of oil imports. Not surprisingly, the bulk of manufactured imports continues to come from developed countries. The sketchy information provided by most of the replies shows only a few cases of increased supply from the South (Burundi, Oman, Thailand). Exports of manufactures from developed to developing countries increased from 20.5 per cent to 24.3 per cent during the 1970-1979 period.[54/] By 1976, over 30 per cent of the machinery exports from developed market economies were destined for developing

Table 12. Exports of manufactures of reporting developing countries

(Percentage)

Country	A. Share of manufactures in total exports					B. Estimated share of manufactured exports destined for other developing countries			
	1975	1978	1979	1980	1985 a/	1975	1978	1979	1980
Argentina	...	20.5	18.5	22.9 a/	...	...	...	...	...
Bahamas	2.08	2.54	...	...	...	...	...	...	...
Benin	33.13	32.99	33.01	32.91	...	...	...	...	...
Bolivia	...	7.25	9.87	12.22	...	... b/	53.7 b/	48.5 b/	42.7 b/
Brazil	29.82	40.15	43.95	44.85	...	48.0	44.0	48.0	52.0
Burundi	3.42	3.35	3.22	4.81	14.58	...	10.0	10.0	12.0
Chile	24.34	33.89	36.49	...	...	...	...	...	...
Costa Rica	27.69	25.91	27.02	39.36	...	...	...	...	...
Cyprus	...	...	53.30	57.05	...	...	...	53.0	57.0
Ecuador	...	7.05	5.39	7.18	14.60	...	...	...	...
El Salvador e/	27.32	35.79	25.35	25.00	...	89.8 c/e/	93.6 c/e/	92.1 c/e/	93.3 c/e/
Ethiopia	...	...	...	...	...	20.0	45.0	38.0	50.0
Guatemala	54.30	36.42	36.19	42.71	35.42	...	...	...	...
Guyana	0.05	0.07	0.07	0.06	...	...	...	...	...
Honduras	36.01	28.71	30.80	34.00	...	...	...	...	...
India	50.89	62.72	59.90	...	...	18.6 d/	35.0 d/	26.9 d/	... d/
Indonesia	...	3.60	5.48	...	...	...	...	...	...
Iraq	0.84	1.11	...	...	...	...	...	...	...
Kenya	16.80	16.33	12.86	...	...	...	...	...	...
Lesotho	35.90	9.65	20.71	28.28	...	...	...	...	...
Madagascar	13.94	13.94	13.96	13.92	...	22.0	22.9	21.0	20.0
Malawi	8.37	6.72	5.90	5.22	...	...	...	...	...
Malta	77.78	86.98	86.73	88.18	91.13	14.5	13.3	12.5	11.7
Mauritius	11.31	25.19	26.75	27.38	...	...	...	...	...
Mexico	49.78	42.45	33.37	22.07	...	26.2	15.4	14.5	18.5
Nigeria	...	10.96	3.83	4.42	...	...	...	...	...
Oman	...	...	...	...	...	...	...	...	...
Pakistan	53.51	59.95	49.30	47.58	...	...	...	...	...
Panama	...	...	...	...	...	9.1	19.9	14.9	17.1
Peru	...	...	...	...	...	... b/	25.0 b/	... b/	... b/
Rep. of Korea	84.43	89.60	89.60	90.40	93.40	...	...	...	...
Romania	55.1	57.60	53.70	53.90	...	...	...	...	...
Rwanda	...	...	...	...	...	...	...	...	...
Senegal	29.54	39.30	37.96	39.23	...	...	...	...	...
Singapore	70.78	70.91	71.83	74.96	...	...	...	...	...
Sudan	6.90	8.40	5.16	8.33	...	...	...	...	...
Thailand	16.17	24.90	26.11	28.74	...	30.0	39.0	36.0	40.0
Togo	5.64	19.05	20.50	...	...	...	...	...	...
Tunisia	32.70	32.58	27.24	...	...	...	...	...	...
Turkey	35.90	27.14	34.72	27.49	...	...	...	...	...
United Rep. of Cameroon	...	19.23	39.30	27.98	...	...	7.2	7.3	6.3
Upper Volta	9.22	15.25	12.15	10.55	...	21.0	28.0	37.0	...
Venezuela	1.90	2.60	3.39	3.76	10.99	...	...	...	...
Yugoslavia	90.61	93.35	93.68	94.42	...	19.4	19.5	16.5	17.27
Zimbabwe	32.31	33.62	35.57	36.50	...	...	...	...	40.1

a/ Planned or estimated.

b/ Destined for the Asociación Latinoamericana de Integración

c/ Only exports to Central America and Panama have been considered.

d/ 1975/76, 1978/79 and 1979/80, respectively.

e/ Figures refer to trade in manufactured goods, covered by sections 5 to 8 of the Uniform Central American Tariff Nomenclature (NAUCA).

Table 13. Imports of manufactures of reporting developing countries
(Percentage)

Country	A. Share of manufactures in total imports					B. Estimated share of manufactured imports originating in other developing countries			
	1975	1978	1979	1980	1985 a/	1975	1978	1979	1980
Argentina	...	45.1	33.0	43.2	...	...	...	...	...
Bahamas	6.73	9.35	...	...	...	...	...	...	...
Benin	66.39	66.27	64.87	64.37	...	...	...	...	...
Bolivia	...	65.90	63.70	64.70	...	.. b/	29.0 b/	31.0 b/	.. b/
Brazil	66.17	53.10	45.39	42.72	...	...	...	...	...
Burundi	59.46	40.15	54.65	33.70	41.72	15.0	18.0	15.0	25.0
Chile	63.59	83.21	82.93	...	...	...	...	...	...
Costa Rica	45.73	39.32	40.22	48.89	...	...	...	...	...
Cyprus	...	...	...	...	...	...	...	...	...
Ecuador	...	80.77	82.80	81.10	56.80	...	...	...	...
El Salvador c/	76.32	78.05	74.84	61.36	...	23.8 c/ f/	23.7 c/ f/	26.3 c/ f/	41.4 c/ f/
Ethiopia	73.06	76.49	69.72	64.07	...	9.0	13.0	12.0	11.0
Guatemala	34.29	91.05	89.43	85.36	85.36	...	...	...	...
Guyana	...	...	...	...	...	...	...	...	...
Honduras	38.00	88.50	88.20	88.30	...	...	...	...	...
India	45.02	54.64	48.92	...	...	15.3 d/	11.9 d/	18.8 d/	.. d/
Indonesia	76.65	...	...	...	...	...	...	...	...
Iraq	40.54	53.45	...	...	...	...	...	...	...
Kenya	92.86	92.86	93.73	...	...	...	...	...	...
Lesotho	79.74	75.09	41.60	...	...	...	...	...	...
Madagascar	58.07	58.51	58.04	58.06	...	29.0	29.5	28.0	27.5
Malawi	...	...	...	...	...	...	...	...	...
Malta	61.15	67.09	69.56	67.04	31.30	7.4	6.7	6.5	6.0
Mauritius	60.96	60.64	57.48	54.64	...	...	...	...	...
Mexico	84.79	89.08	88.13	86.63	...	10.6	10.5	8.3	8.1
Nigeria	76.15	74.31	76.69	75.50	...	...	...	...	...
Oman	65.07	70.60	66.67	66.53	...	36.0 e/	47.0 e/	47.0 e/	54.0 e/
Pakistan	53.97	55.56	59.13	51.36	...	...	...	...	...
Panama	...	...	...	...	...	30.9	30.7	...	...
Peru	74.83	81.10	...	...	...	5.5 b/	6.0 b/	.. b/	... b/
Rep. of Korea	...	...	...	...	...	...	...	...	...
Romania	46.10	48.70	43.30	35.00	...	...	...	...	...
Rwanda	42.14	48.55	50.23	42.30	...	...	...	...	...
Senegal	46.49	42.45	43.78	39.23	...	...	...	...	...
Singapore	59.56	58.95	57.91	56.64	...	...	...	...	...
Sudan	61.66	54.84	64.66	59.07	...	...	...	...	...
Thailand	64.21	61.86	59.08	50.55	...	26.0	33.0	37.0	34.0
Togo	96.62	98.86	98.62	...	...	...	...	...	...
Tunisia	...	...	...	...	...	...	...	...	...
Turkey	78.96	74.86	78.24	62.14	...	...	...	...	...
United Rep. of Cameroon	87.32	...	87.40	83.61	...	...	12.0	9.0	8.3
Upper Volta	51.43	50.87	48.61	63.00	...	28.5	21.5	27.0	...
Venezuela	5.42	4.93	9.09	9.03	4.80	...	...	...	...
Yugoslavia	...	...	...	...	...	...	...	...	...
Zimbabwe	59.68	47.54	45.06	49.06	...	...	...	...	36.9

a/ Planned or estimated.

b/ Originated in ALADI.

c/ Only exports to Central America and Panama have been considered.

d/ 1975/76, 1978/79 and 1979/80, respectively.

e/ Only developing countries of Africa and Asia.

f/ These figures refer to trade in manufactured goods, covered by sections 5 to 8 of the Uniform Central Tariff Nomenclature (NAUCA).

countries.[55/] Data provided for the period 1975-1980 by the developed countries who answered the questionnaire suggest that the overall share of the developing countries markets remained stable (see table 14). The United Kingdom ranks first regarding such shares, followed closely by Switzerland.

The export of manufactures from the developed to the developing countries has consistently accounted for a much larger share of the total income of developed countries than exports from developing countries. The deficit of developing countries in their manufacturing trade with developed economies increased substantially over the last decade, and despite the drastic increase in the exports of developing countries, there is no indication of an opposite trend.

Moreover, the South's share in the Northern markets continues to be small: it increased from 5.8 per cent in 1967 to less than 8 per cent in 1976.[56/] For the developed countries that responded to the questionnaire, the share of developing countries in total imports of manufactures ranged in 1980 from 2.10 per cent in the case of Czechoslovakia to 9.20 per cent in the case of the United Kingdom (see table 15). Based on the current level of imports by the developed market economies, the developing countries' prospects for further expansion are not promising, especially in view of the increasing spread of new protectionism.

The role of developed countries

Despite the favourable trends of trade among developing countries, there is a need for an expanded flow of manufactured exports to developed countries. The Lima Plan of Action called developed countries to eliminate or reduce tariff and non-tariff barriers, and to adopt additional measures designed to ensure increased exports of manufactures from developing countries. The call was reiterated by the New Delhi Conference, which emphasized the need both to provide special treatment to exports from the South and to stop the protectionist trend.

Developed countries carry out their external trade relationships through multilateral schemes and national measures; with regard to the former, the Lima Plan emphasized the need to apply, expand and improve the special incentives provided to developing countries through the General System of Preferences (GSP), and to undertake multilateral trade negotations within the framework of General Agreement on Tariffs and Trade, taking into account the development needs of developing countries with the threefold objective of increasing the export earnings of these countries, promoting their industrialization and accelerating the rates of economic growth. In New Delhi, special reference was made to the objectives and commitments of the Tokyo Declaration.[57/] The progress achieved under both schemes, taking into account the contributions by United Nations Conference on Trade and Development (UNCTAD) and General Agreement on Tariffs and Trade (GATT), are reviewed below.

General System of Preferences (GSP)

GSP represents the largest tariff liberalization programme ever accomplished in favour of developing countries. Products enjoying preferential treatment include many manufactures and semi-manufactures, which in general enjoy duty-free treatment. The reply of UNCTAD to the

Table 14. Reporting developed countries' exports of manufactures to developing countries
(Millions of US dollars)

Country	A. Export of manufactures to developing countries					B. Share of developing countries in total exports of manufactures to all countries				
	1975	1978	1979	1980	1985	1975	1978	1979	1980	1985
Belgium	2,527.0	4,327.0	4.674.0	5,376.0	...	10.91	11.82	10.10	10.71	...
Canada	1,761.4	2,572.0	2,854.9	3,850.0	...	10.56	10.15	9.44	11.36	...
Czechoslovakia b/	...	4,239.0	4,168.7	5,186.8	...	...	7.60	7.90	9.30	...
Denmark	...	986.0	1,098.0	1,284.0	1,469.0 c/	...	14.90	13.50	13.50	12.80 c/
Finland	283.0	609.0	685.6	983.9	1,085.0 d/	8.60	9.20	8.20	9.50	10.50 d/
Germany, Fed. Republic of	13,918.0	22,067.0	22,742.0	25,992.0	...	17.50	17.60	15.10	15.60	...
Hungary	60.2	408.1	565.8	693.8	...	7.00	9.00	10.00	12.00	...
Netherlands	...	...	...	...	...	5.10	7.50	10.00	10.00	...
Norway e/	1,060.8	1,587.3	1,826.5	1,740.0	...	14.80	18.60	21.20	19.40	...
Sweden	13,827.0	17,936.0	22,268.0	24,533.0	...	14.70	15.40	14.20	15.00	...
Switzerland	2,853.0	5,536.0	3,918.0	6,386.0	...	23.70	25.20	17.00	22.90	...
United Kingdom	4,564.0	8,260.0	7,798.0	9,112.0 f/	...	28.40	29.50	25.30	26.20	...
Soviet Union	3.3	5.7	6.3	6.9 g/		13.00	16.00	14.80	14.00	...

a/ Planned or estimated.

b/ Data have been prepared on the basis of the Foreign Trade Unified Classification of Goods for the countries of the Council for Mutual Economic Assistance (CMEA). Manufactures cover groups I: machinery and equipment; VIII: foodstuff; and IX: industrial consumer goods.

c/ Exchange rate per August 1981, yearly average.

d/ Preliminary estimates.

e/ Figures for 1975 are given according to SITC, Rev.1. Figures given in US dollars are based on the average rate for the given years.

f/ In millions of pounds sterling.

g/ In thousands of millions of roubles.

Table 15. Reporting developed countries' imports of manufactures from developing countries

(Millions of US dollars)

Country	A. Import of manufactures from developing countries					B. Share of developing countries in total imports of manufactures					C. Share of manufactures in total imports from developing countries				
	1975	1978	1979	1980	1985[a]	1975	1978	1979	1980	1985[a]	1975	1978	1979	1980	1985[a]
Belgium	856.0	2 015.0	2 415.0	2 899.0	...	4.36	6.10	5.97	6.41	...	20.24	29.75	27.84	24.79	...
Canada	764.9	1 277.0	1 696.2	1 750.0	...	3.01	3.80	4.17	4.17	...	15.34	25.41	28.97	22.34	...
Czechoslovakia[b]	...	640.0	698.8	735.6	...	+	1.80	1.90	2.10	...	...	19.30	18.60	16.50	...
Denmark	...	329.0	444.0	507.0	695.0[c]	+	3.40	3.80	4.40	5.80[c]	...	22.60	22.00	24.00	25.00[c]
Finland	57.4	143.3	168.6	224.6	290.0[d]	1.10	2.90	2.50	2.50	3.50[d]	8.10	18.30	12.60	11.10	15.00[d]
Germany, Federal Republic of	2 913.0	5 416.0	7 231.0	8 924.0	...	7.10	7.50	7.90	8.60	...	19.50	24.90	24.30	23.30	...
Hungary	13.6	84.1	100.0	125.6	...	1.00	2.00	2.00	2.00	...	14.00	12.00	14.00	15.00	...
Netherlands	...	...	...	...	...	3.00	3.90	4.50	5.50	...	...	...	...	...	...
Norway[e]	315.2	165.5	287.5	344.3	...	3.20	1.70	2.70	2.90	...	31.90	13.50	22.40	21.10	...
Sweden[f]	12 641.0	14 437.0	18 799.0	21 308.0	...	3.40	3.80	4.30	4.50	...	20.30	21.30	21.60	17.40	...
Switzerland	477.0	886.0	900.0	1 565.0	...	5.00	4.80	4.10	5.60	...	35.00	42.30	35.20	43.60	...
United Kingdom						8.80	8.40	8.90	9.20	...	18.90	27.20	31.70	28.80	...

a/ Planned or estimated.

b/ Data have been prepared on the basis of the Foreign Trade Unified Classification of Goods of the CMEA countries. Manufactures cover group I: machinery and equipment; VIII: foodstuff; and IX: industrial consumer goods.

c/ Exchange rate per August 1981, yearly average.

d/ Preliminary estimation.

e/ Figures for 1975 are given according to SITC, Rev. 1. Figures given in US dollars are based on the average exchange rate for the given years.

f/ Imports of mineral oils included.

questionnaire indicates that as a result of various improvements, the product coverage of OECD preference-giving countries' schemes increased from about one fifth to about one third of their dutiable imports from developing countries. Yet, apart from recalling that certain manufactures of special relevance for developing countries, such as textiles, leather and petroleum products, are exempted from the system, the UNCTAD report reveals that, owing to various limitations and stringent origin rules, only about 40 per cent of covered imports receive preferential treatment. A resolution of the UNCTAD Special Committee on Preferences in 1980 agreed that the GSP objectives had not been fully met and decided therefore that the duration of GSP should be continued beyond the initial 10-year period planned. In pursuance of this agreement, EEC put into effect a "pluri-annual" scheme in January 1981.

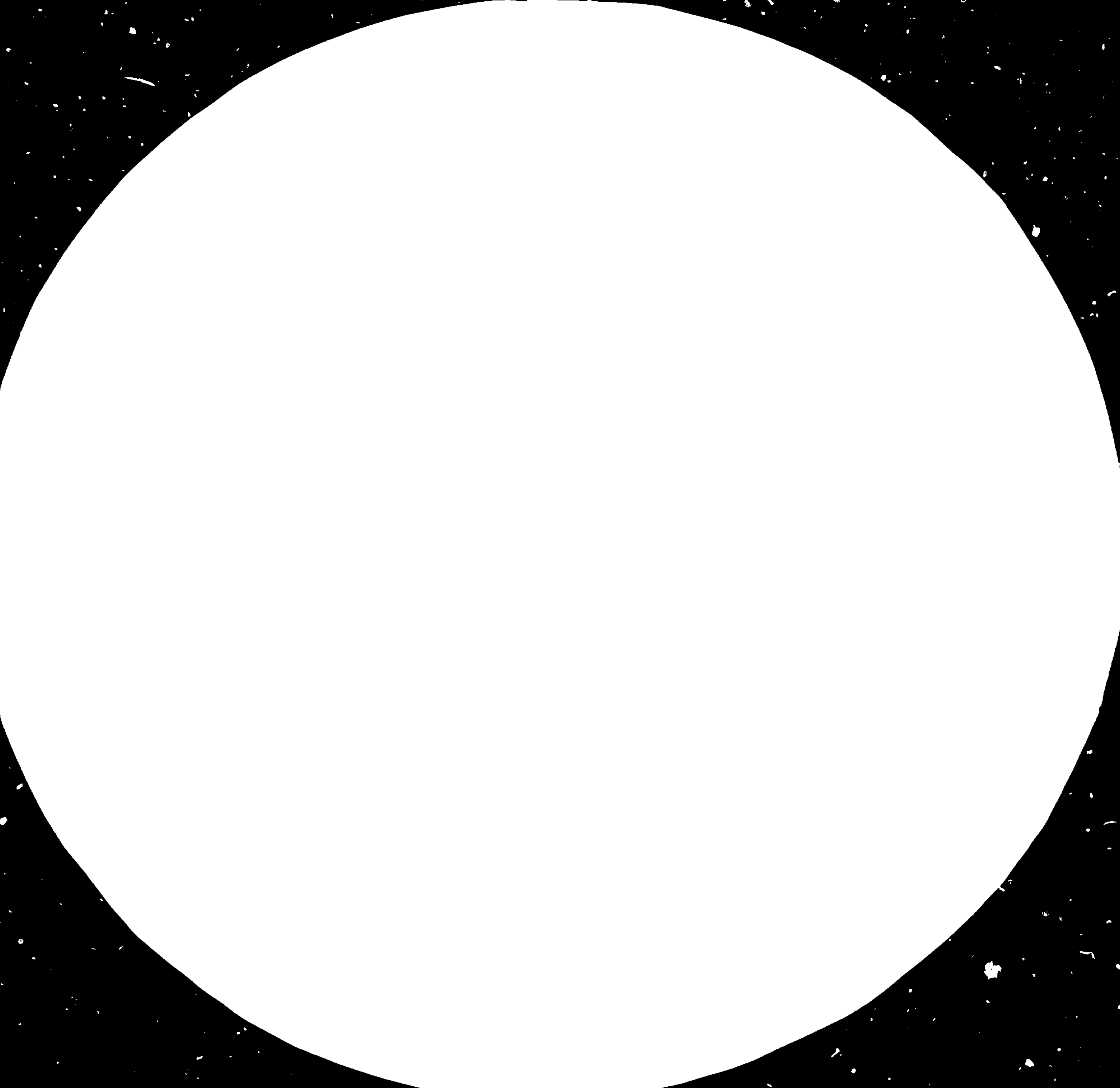
A number of other developed countries have taken steps to extend their schemes as and when these reach the expiration date. Among the non-EEC developed countries that replied to the questionnaire, the reports from Austria, Norway and Sweden indicate that their respective schemes have been revised, improved and expanded several times. In the case of Norway and Sweden, about 80 per cent of total imports from a great number of developing countries are enjoying duty-free treatment. The UNCTAD reply also underlines that in 1980, preferential imports under the schemes of EEC, Japan and the United States amounted to $23 million, or nearly 90 per cent of total preferential trade. Moreover, preferential imports have been growing at a much faster rate than other categories of preference-giving countries' imports from beneficiaries of their schemes.

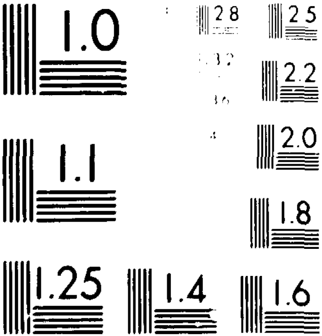
The importance of GSP for developing countries' exports does not conceal its inadequacies. The reply from UNCTAD observes that the utilization of the system and its benefits varies widely between beneficiaries and schemes. Developing countries with a broader industrial base and diversified exports stand to benefit most from the system: roughly a dozen of the more advanced developing countries supply 80 per cent or more of the total beneficiary imports. At the other end of the spectrum, the least developed of the developing countries benefit only to a limited extent. Consequently, a number of preference-giving countries have introduced special measures designed to increase imports from these countries. For example, the reply from EEC notes that nearly all imports from least developed of the developing countries can now enter duty-free and without preferential limits. In addition, the Second Lomé Convention provides for favourable treatment for exports of manufactured goods of 61 developing member countries. The replies from Austria, Canada, Czechoslovakia, Norway and Sweden indicate that free-duty treatment has been recently granted to most imports of manufactures from the least developed of the developing countries.

Yet despite the declared commitment of developed countries to open their markets to developing countries' exports, the UNCTAD reply notes that as a result of growing protectionism a number of preference-giving countries have taken certain restrictive measures under the so-called policy of "graduation". According to UNCTAD, if such measures continue unaltered, they would not only drastically reduce the trade benefits under the GSP, but would further compromise the chances of ever achieving the declared objectives of the system.

83.09.30

AD.85.03





MICROCOPY RESOLUTION TEST CHART

Multilateral trade negotiations

The results of the multilateral trade negotiations that ended in 1979, the so-called Tokyo Round of GATT, appeared as an important contribution to further liberalization of world trade. As indicated in the contribution by the GATT secretariat, promotion of the trade interests of developing countries was one of the essential aims of the Tokyo Round. Developing countries, which comprised three quarters of the 99 countries participating in the negotiations, secured measures designed to improve their trading conditions in several agreements covering tariff, non-tariff and other aspects. Tariff negotiations resulted in significant cuts in import duties of the main industrialized countries: according to the GATT reply, these cuts, when completed, will reduce the average most-favoured-nation duties on imports of manufactured goods. A series of eight annual cuts was agreed upon, but a number of countries are reported to be following faster schedules for reducing tariffs on imports from developing countries.

Another result of the Tokyo Round was the provision of the so-called "enabling clause" for preferential treatment for and between developing countries, taking into account the particular situation of the least developed among them. In this respect, the replies of various developed countries manifest their continuous and full support to such a principle of special and differential treatment as declared in the Tokyo Round.

The GATT reply indicates that the agreements on non-tariff measures reached in the Tokyo Round are now all operative, and expresses the hope that these measures, designed to produce greater transparancy in international trading rules and reduce the scope for protectionist use of non-tariff measures, will help developing countries protect their commercial interests as they participate increasingly in world trade. Each of such agreements contains provisions for special and differential treatment for developing countries. As of December 1981, 23 developing countries had signed or accepted one or more of the various Tokyo Round agreements. Eighteen of these countries, accounting for about half of all developing countries' exports of manufactures, have in addition joined in a Protocol Relating to Trade Negotiations among Developing Countries, providing for an exchange of tariff and trade concessions.

On the other hand, the GATT secretariat notes the agreement to set up a "Programme of Consultations on Trade Liberalization", to be held between the importing countries concerned and interested developing country suppliers with respect to commercial policy measures affecting trade. In addition, the Sub-Committee on Protective Measures, established in March 1980, deals with cases of protective actions by developed countries against imports from developing countries. Finally, the GATT reply emphasizes the relevance accorded to the Ministerial Meeting held in November 1982, whose purpose was to examine the implementation of the results of the Multilateral Trade Negotiations, problems affecting the trading system, the position of developing countries and future prospects for the development of trade. Although at the time of finishing this report a definite evaluation of the Geneva meeting was not available, the preliminary impressions strongly suggested that, unfortunately, little progress was achieved, as could be expected in the present state of growing international trade tensions.

National measures

Most market economy developed countries have tended increasingly to base their trade relations with developing countries on multilateral mechanisms and programmes. In the case of developed countries with centrally planned economies, the main instrument of international trade is, apart from the unilateral concession of tariff and non-tariff preferences, the long-term inter-governmental trade and economic co-operation signed on a bilateral basis with developing countries. For example, the reply from Czechoslovakia notes that recently this country has concluded 20 agreements of such a kind with various developing countries with the purpose of assisting them with the expansion and diversification of exports. Centrally planned economies usually organize joint commissions and inter-governmental committees to evaluate regularly the development of mutual trade with developing countries. Other developed countries also utilize bilateral agreements as a complementary tool. For example, EEC has concluded economic and trade co-operation agreements with Argentina, Bangladesh, Brazil, India, Mexico and Pakistan, among other developing countries. In addition, several developed countries have introduced special measures to encourage imports from developing countries. Among the reporting developed countries, the replies from Canada, Denmark, Netherlands, Norway and Sweden referred to the recent creation of trade facilitation or promotion offices, with the purpose of assisting and guiding producers and exporters from developing countries in promoting their exports to their respective markets. Another possible incentive has been recently introduced by Norway, in the form of a special guarantee scheme to encourage Norwegian importers to seek new sources of supply in developing countries. In the case of EEC, funds from the European Development Fund are available to finance trade promotion measures for the Lomé Convention countries, including exhibitions, quality control and research activities. In addition, the community devoted, in 1981, 6.25 million Euro-currency units to finance informational promotion measures for non-associated developing countries.

Export promotion and the new protectionism

Notwithstanding the intentions expressed and the efforts made by certain developed countries to contain the growing wave of protectionism, in recent years "the world trading system has become increasingly discriminatory and less transparent, with greater emphasis on non-tariff barriers often negotiated outside the appropriate institutions and/or entailing conditions imposed unilaterally on trading partners."[58/] There has been an increasing reliance on export restraint and market sharing arrangements designed to protect traditional markets without conforming to multilaterally agreed safeguard procedures. GATT admits that there is no denying that infractions and circumventions to the rules have tended to multiply, as exemplified by the increasing resort to privately agreed, and officially tolerated if not promoted, restraints on trade such as in the steel, automobile, synthetic fibre and petrochemical industries.[59/] A classic case is the Multifibre Arrangement, regulating the trade in textiles and clothing and whose revision for 1978-1982 was more restrictive than its predecessors:[60/] the arrangement covers almost one third of all the manufactured exports of developing countries. It provides for a quantitative restraint on exports of developing countries as a safeguard procedure to avoid market disruption in the major developed market economy countries; even if they are supplying a negligible share of the domestic market.

Despite the general importance attached to reaching agreement on a safeguard code of behaviour, this remains as one of the most relevant unresolved issues from the Tokyo Round. The protective measures currently proliferating, although described as temporary safeguards, are rarely phased out. In such a scenario, as UNCTAD comments, the major burden is borne by the developing countries,[61/] and particularly by the least developed of the developing countries, whose foreign exchange position is much more dependent on their export earnings than in the case of more advanced developing countries.

Against this outlook it is very difficult to ascertain and compare the alternatives effectively open to developing countries. Although the small share of developing countries in the imports of manufactures of developed countries suggest in theory an enormous potential for further expansion of such trade, the new protectionist measures make such prospects bleak. Product diversification, redeployment among developing countries could be other means by which export expansion could continue.[62/] All such measures imply, in one way or another, the continuous effort of export promotion on which most developing countries are presently embarked. Yet in view of the increased external constraints and the increasing competition between developing countries adopting similar export-aggressive strategies, the question arises as to the cost-benefit differential of such promotional policies. The generous fiscal and financial incentives being provided by many developing countries run the risk of aggravating their worsening financial situation without an adequate result (quite apart from the still insufficient evidence on the overall benefits that in normal situations can be obtained from such over-incentivating schemes such as the export processing zones). At the same time, several developing countries that have introduced drastic adjustments into their economic policies, believing in the proclaimed benefits of free trade and open markets, are now witnessing how several industrial sectors suffer huge damages from import competition, without the matching possibility of achieving the expected improvements in productivity in continuously narrowing international markets. To avoid such damages, developing countries may need to adopt a more cautious approach with regard to export incentives, and to co-ordinate their activities as far as possible.[63/] Such co-ordination could be promoted within the wider programmes and efforts of horizontal co-operation between developing countries, which may capitalize not only on the growing South-South trade of manufactures, but also on a number of other possibilities of collective self-reliance, more valid now than ever.

VI. ECONOMIC CO-OPERATION AMONG DEVELOPING COUNTRIES

One of the few encouraging features in the present world scenario is the increasing tide of economic relationships taking place between developing countries. The present share of South-South economic co-operation is a discouragingly small fraction of total international transactions. Yet there are many elements that indicate that developing countries have already at their disposal an extraordinary instrument of development in the potential offered by reciprocal ties and flows in the trade and production fields. First is the awareness of the need to base the development process primarily on national efforts and decisions, instead of relying on the possibilities, ideas and mechanisms supplied or imposed by developed countries. Secondly is the growing confidence, based on many successful examples, of the viability of collective self-reliance as a means of achieving certain objectives that are impossible or more difficult to obtain in the context of North-South relations, and also for increasing their bargaining power in their negotiations with developed countries. Thirdly, the evidence shows that the increasing trade relationships, reviewed in the previous chapter of this report, are just one of the many and varied aspects of the dynamic on-going process of economic co-operation among developing countries.

Economic co-operation among developing countries enjoys at present the full support and legitimization of virtually all international organizations related to development objectives. The building up of a programme of South-South co-operation has been progressing through a series of important conferences, and particularily the Conference on Economic Co-operation among Developing Countries held at Mexico City in September 1976, the United Nations Conference on Technical Co-operation among Developing Countries held at Buenos Aires in September 1978, the Fourth Ministerial Meeting of the Group of 77 at Arusha in February 1979, the Programme of Action for Economic Co-operation adopted by the Sixth Summit Conference of Non-Aligned Countries held at Havana in September 1979, the Havana Declaration of the Ministerial Meeting of the Group of 77 in September 1979, and the High Level Conference on Economic Co-operation among Developing Countries at Caracas in May 1981.

The Lima[15/] and New Delhi Declarations and Plans of Actions[17/] stressed the strategic importance of economic co-operation among developing countries in virtually all dimensions of the industrialization process: trade, development and transfer of technology, development of human resources, exploitation of natural resources, energy development, mobilization of financial resources, strengthening of institutions and policies, negotiations with developed countries and transnational enterprises etc. The mechanisms and instruments for such co-operation have already been identified: policy co-ordination and harmonization, reciprocal trade preferences, economic integration, producers' associations, long-term agreements of product specialization, marketing and production joint ventures, joint schemes for research, development and training, multilateral financial institutions, preferential treatment for the reciprocal flow of resources, special treatment to the least developed of the developing countries, inter alia.

The replies of developing countries to the questionnaire, although falling short of an in-depth analysis of the current level and intensity of economic co-operation among developing countries, throw sufficient light on the trends and main patterns of such processes in recent years.

Modalities of economic co-operation

Economic co-operation among developing countries is channelled through the most varied ways and forms. From the standpoint of the number of participating countries, it can be classified as bilateral and multilateral; the latter, in turn, takes the shape of partial groupings of countries, regional or subregional schemes and inter-regional programmes. In this respect, the information collected indicates an increasing use of all such forms.

First, bilateral agreements of economic and technical co-operation with other developing countries are reported in virtually all replies. In many cases, such agreements are still much less than those arranged with developed countries, but the recent proliferation of South-South arrangements suggests a definite trend. Together with such inter-governmental agreements, in the last few years a growing tide of joint ventures between developing countries, predominantly on a bi-national basis, can be observed. The growth of bilateral co-operation between developing countries reflects the increasingly active policies of external relations of many third world nations, particularly in the case of newly industrialized countries, the international projection of the firms of several such countries, and the importance assigned by Governments to the joint development of certain strategic projects, such as in the physical infrastructure field (transports, communications, hydro-electric works).

Secondly, many developing countries are at present involved in one or various regional and subregional integration and co-operation schemes. Pioneered by the Latin American programmes launched in the late 1950s and early 1960s, regional integration is now actively pursued by many African, Arab and South-east Asian countries, which in recent years have been launching new programmes or expanding existing ones.

Thirdly, developing countries are finding it less difficult now to approach other developing countries in different regions of the world. In this respect, the direct and indirect contribution of the United Nations system as a forum and channel of contact and sharing of experiences and work has been credited by the responding countries. But the gradual maturing of a number of the more advanced developing countries, which have expanded their external markets to various regions, as well as the international diffusion of the transport and communications infrastructure, are also important factors for this growing trend of inter-regional co-operation.

In terms of the actors taking part in the process of South-South co-operation, the public sector plays a leading role. Apart from the services of the Foreign Affairs Ministries, most developing countries have already created Trade Departments and Centres that provide a specialized channel for carrying out international relationships. Public enterprises are also active in the export and import business, and there are many cases in which inter-governmental arrangements between developing countries have been promoted or executed by such enterprises. Moreover, the Governments of some developing countries have set up specific departments dealing with South-South co-operation. On the other hand, several Governments also report on the increasing involvement of private enterprises and centres, particularily through joint ventures and technical associations among firms from different countries.

As mentioned above, economic co-operation among developing countries takes place in a variety of fields. The following is a summarized review of the trends at work in such main areas, based on the information provided by the responding countries.

Fields of economic co-operation

Trade

Commercial co-operation among developing countries is currently conducted through all the channels and mechanisms referred to above. At the global level, some replies mentioned the GATT Protocol Relating to Trade Negotiations among Developing Countries, although only 18 countries, basically the more advanced, are members of this arrangement. Regional and inter-regional schemes of reciprocal trade preferences are by far the most popular instruments of trade co-operation. The main existing schemes include the Latin American Integration Association (LAIA), the Central American Common Market (CACM), the Caribbean Community (CARICOM), the Andean Group, the East African Community, the Custom and Economic Union of Central Africa (UDEAC), the Economic Community of West African States (ECOWAS), the West African Economic Community (CEAO), the Mano River Union, and the Association of South-east Asian Nations (ASEAN). The distinct feature of these groupings lies in the importance accorded to the liberalization of intra-regional trade, although the systems applied could vary from ad hoc negotiations between pairs and groupings of member countries to the establishment of an economic community endowed with a common external tariff and programmed targets of reciprocal tariff reduction. Yet, regional integration schemes usually encompass other programmes and mechanisms in non-trade areas of co-operation such as industrial development and infrastructure. New examples of multilateral arrangements exclusively devoted to trade have recently appeared with the First Agreement on Trade Negotiations among Developing Member Countries of ESCAP (the so-called Bangkok Agreement between Bangladesh, India, Laos, Republic of Korea, Sri Lanka) and the Preferential Trade Area for Eastern and Southern Africa, created in December 1981. The Tripartite Agreement between Egypt, India and Yugoslavia, should also be mentioned, which regulates a major part of the trade between these countries. Finally, many replies referred to a number of bilateral agreements with other developing countries, which provide reciprocal tariff advantages and other measures of trade promotion.

Investments

Some time ago, the creation of production and marketing enterprises owned and controlled by nationals of developing countries was recommended in many international and regional fora of the third world as one of the most important instruments to be promoted by Governments through joint efforts. Such undertakings were viewed as channels for increasing the bargaining power of developing countries vis-à-vis developed countries and transnational corporations, securing the transfer of appropriate technology, undertaking large projects that would be otherwise beyond the isolated capacities of each country, and encouraging the effective exploitation of the existing complementarities between the national economies. The various regional integration schemes provided an institutional scenario for the adoption of legal and administrative regulations designed to facilitate the creation of such enterprises. Thus, in Latin America, the Andean Pact adopted in 1971 the first comprehensive statute for the promotion of joint ventures between developing countries (the so-called Andean multi-nationals statute, or Decision 46). It was followed by the statute on "Caricom Enterprises" introduced by the Caribbean Community in 1976. By 1975, the UDEAC countries had adopted their own regime and a few years later, both ECOWAS and CEAO were discussing drafts of similar instruments, not adopted so far. A few years ago, ASEAN launched various schemes for the establishment of joint ventures among the public and private sectors of member countries.[64/] The ASEAN system of co-operation and the Andean Group integration programme are also characterized by the active promotion of sectoral programmes, whereby each member country manufactures some parts of components of an industry and exchange those items among themselves. In both cases, the petrochemical, automotive and certain branches of the metal-working sector have been selected for such efforts of industrial implementation.

So far, the legal regimes on bi-national or multi-national joint ventures adopted by the regional programmes have not been effectively implemented, in some cases owing to certain differences in the juridical and administrative machineries. However, in the case of ASEAN, a few projects have already been identified and are currently being promoted.

Yet in parallel to the so far unsuccessful efforts of regional statutes to affect joint venture initiatives, a remarkable phenomenon only recently documented and appreciated, is taking place through the spontaneous creation of equity and non-equity joint ventures between developing countries, mainly in the industrial sector. The manufacturing activities involved range from traditional branches, such as food and textiles, to heavy industries and high technology items such as capital goods and pharmaceuticals. The geographical spread of these joint ventures is predominantly regional, and in general the resources go from developing countries with a higher level of development to less advanced countries.

It is significant that these operations are taking place not only outside the regional networks referred to above, but also, in most cases, without the support of any special framework of national incentives, and frequently overcoming the obstacles arising from legal structures that have not yet been adapted by the countries to their reception. True, there are several cases of joint ventures formed by public enterprises of member countries, such as the Itaipu dam between Brazil and Paraguay; MULTIFERT, the fertilizer project between several countries of the Caribbean Basin; the West African Cement Works set up jointly by the Ivory Coast, Ghana and Togo; the Benin-Libyan Fishing and Mining Companies, and certain petrochemical joint ventures between Arab countries. The Governments in these cases have adopted specific, *ad hoc* measures to facilitate their implementation. But in the manufacturing sector, an important share of the joint ventures is sponsored by national investors of the private sector. By mid-1981, the Government of India had authorized 217 joint ventures in 37 countries, most of them in South-east Asia. At the end of 1978, the Government of the Republic of Korea had 118 direct investment projects registered in 33 nations. Most of these investments belong to private enterprises. In other relatively advanced developing countries, such as Brazil, Mexico and Singapore, domestic firms have matured to the point of becoming internationally oriented. Although the Governments of such countries have recently started to provide incentives to the overseas investment of national firms in view of the advantages arising from such market expansion, in general, the recipient developing countries have not yet decided to give special or preferential treatment to the investments originating in other third world countries. Taking into account the reciprocal benefits arising from joint ventures from developing countries,[65] there seems to be a need for policy co-ordination between developing countries on the treatment to be provided to reciprocal flows of direct investment.

Technology

Technological co-operation among developing countries (TCDC) is becoming one of the most dynamic channels of South-South co-operation. Virtually all regional integration and co-operation schemes have introduced programmes and mechanisms for the development and exchange of industrial technology, co-operation in the field of human resources development, search for technology in the international market etc. In Latin America, the Andean Group has enacted a package of measures, based on a technological subregional policy and including a technological information system (SAIT), a series of programmes of technological development (PADT), which so far have been executed in the copper, forestry and food sectors, a drastic revision of the patent legislation through a common regulation, and a regulation for foreign investments and technology transfer that harmonizes the treatment provided to foreign suppliers. In Africa, several institutions are already in operation: the African Institute for Higher Technical Training and Research (Nairobi, Kenya), the African Regional Centre for Industrial Design and Manufacturing (Ibadam, Nigeria), and the African Regional Centre of Technology (Dakar, Senegal). The Economic Commission for Africa is presently involved in the creation of an additional organization, the African Regional Centre for Industrial Consultancy and Management. In the ESCAP region, two important programmes are the Regional Centre for Technology Transfer (RCTT), which supports the technological capacities of national centres, and the Regional Network for Agriculture Machinery (RNAM), which provides extension services, standardization and quality control. Also the Regional Co-operation for Development scheme between Iran, Pakistan and Turkey, has organized committees on different sectors to promote the exchange of skills and experience between member countries. Finally, a national centre for human resources development will soon be established in each member country of ASEAN, following a co-ordinated programme.

On the other hand, technological relationships between developing countries take place at the bilateral level through a wide variety of channels: apart from the joint ventures that serve as a way of technology transfer, there is sufficient evidence on the flows of turnkey projects, engineering consultancy, licensing and other services from the more advanced developing countries, for example, Brazil, India and the Republic of Korea, to other countries of the third world.[66] Also China is providing technical assistance to a number of developing countries in the food, textile and other sectors. Pakistan, Romania, Republic of Korea and Thailand report many cases in which their experts were sent to developing countries to assist them in several industrial activities. And even a small country such as Mauritius is useful in the provision of sugar-cane-related technology to other African countries.

Several developing countries are actively pursuing TCDC activities in which training programmes occupy an important place. The Government of India has set up a scheme to respond to the demands for technical manpower from other countries, and many institutions are carrying out training programmes open to personnel from other developing countries. Since the start of the TCDC programme of Brazil in 1973, approximately 3,000 foreigners received training in the country. In turn, the Republic of Korea states that 2,975 people from other developing countries have been trained in such fields as manufacturing, mining, fisheries and construction from 1965 to 1981.

Finance

On the one hand, a number of regional integration and co-operation schemes have been able to set up their own financial development institutions, such as the Central American Development Bank, the Caribbean Development Bank, the Andean Financial Corporation, the African Development Bank, the West African Development Bank, the African Industrial Development Fund, and the ASEAN Financial Institution. Such organizations serve to attract and mobilize funds from the international market and the aid programmes of developed countries, and channel them into the regional priorities of their respective programmes. With the exception of several Arab financial joint ventures, virtually all regional funds are presently suffering from the difficult international conditions described in chapter IV.

On the other hand, some developing countries have been receiving, on a bilateral basis, an increasing flow of financial assistance from oil-exporting developing countries. Thus capital surplus Arab countries have been financing projects in poorer developing countries, particularly in the same Arab region, but also in Africa and Asia. Also richer countries of Latin America, such as Mexico and Venezuela, have assisted their smaller neighbours of Central America, and the same has been done by Brazil as a supplier of soft credits to Bolivia and Paraguay.

Energy

Economic co-operation among developing countries is being promoted in several energy sectors. Joint hydro-electrical developments were reported by Senegal in co-operation with Mali and Mauritius, Burundi with neighbouring countries, Yugoslavia with Romania. The biggest dam in the world, Itaipu, between Brazil and Paraguay, had started to operate by mid-1982. Technical co-operation in the field of oil is provided by Mexico and Venezuela to the Caribbean and Central American countries. At the regional level, reference was made to the works of the Latin American Energy Association (OLADE), the African Solar Energy Committee, the Arab Petroleum Institute, the Energy Programming for the Central American Isthmus, the initiatives in ASEAN to establish emergency petroleum-sharing plans and an ASEAN petroleum security reserve, and the works carried out by the Energy Committee of the countries in the Regional Co-operation for Development group.

Special and preferential treatment for the least developed countries

One of the principles mutually agreed on by the third world countries is the need to provide special treatment to the least developed among them. The programme for economic co-operation among developing countries emphasizes this principle, and the Lima and New Delhi Plans have identified several aspects that are of particular relevance from the viewpoint of industrialization, such as in the field of trade, investments, technology, and finance.

In practice, the effective application of this principle may depend on the degree and scope of involvement of Governments in economic co-operation among developing countries. The fact that Governments indeed play an active role in this field has provided a certain flexibility in the elaboration of various mechanisms of special treatment. In particular, the different regional integration programmes usually include provisions to ensure that the less developed member countries enjoy a better position in terms of rights and obligations. Lower levels or speeds of tariff reduction, softer ways of carrying out common policies, reduced rates of interests for loans of regional banks are among the techniques utilized with the objective of redistributing the benefits of the joint programmes to the advantage of the poorer countries. The replies from developing countries were not very expressive with regard to bilateral programmes and actions for the benefit of the least developed of the developing countries. A few cases were reported in which landlocked countries have at their disposal the transport and port facilities of other developing countries. In the case of the more advanced developing countries, emphasis was on the arrangement of technical and financial assistance programmes with countries at lower development levels. As previously indicated, a good share of such programmes link developing countries at different stages of development.

The private sector may also be an instrument of special treatment to least developed of the developing countries. The guidelines that the Government of India has set up for joint ventures abroad require, among other conditions, that the firms have sufficient technological experience and respect the laws and policies of the host countries. The evidence collected in a number of studies reveals that investors from developing countries are less likely to insist on restrictive practices than transnational corporations, and more inclined to facilitate a full and rapid transfer of technology.67/ Obviously such "natural" advantageous treatment could be further encouraged by additional measures of the more advanced developing countries that are in a position to guide their own enterprises expanding abroad.

To summarize, economic co-operation among developing countries is gradually evolving from grand declarations and programmes to concrete projects and experiences. Progress has been made in the field of trade, where integration schemes, whatever their shortcomings, provide a major alternative to the increasingly difficult expansion of exports in the developed countries' markets. Co-operation in the field of investments offers multiple channels and forms and a promising upward trend. In the fields of technology, finance and energy, there is a need to strengthen the existing regional co-operation instruments and to enhance the role of global programmes of inter-regional co-operation. Finally, the case for a special effort, perhaps a programme for co-ordinating and making more effective the South-South co-operation with the least developed of the developing countries, seems to be needed.

Notes

1/ Lima Declaration and Plan of Action on Industrial Development and Co-operation (PI/38).

2/ "Summary of report on monitoring the implementation of the Lima Declaration and Plan of Action" (ID/B/182) and Implementation of the Lima Declaration and Plan of Action (ID/238).

3/ New Delhi Declaration and Plan of Action on Industrialization of Developing Countries and International Co-operation for their Industrial Development (PI/72).

4/ General Assembly resolution 35/56, annex.

5/ See PI/38.

6/ See Institute for Latin American Integration, The Process of Latin American Integration in 1981 (Buenos Aires, 1982).

7/ See World Industry since 1960: Progress and Prospects, Special Issue of the Industrial Development Survey for the Third General Conference of UNIDO (United Nations publication, Sales No. E. 79.II.B.3), pp .9 and 176.

8/ For an analysis of the mineral sector, see Mineral Processing in Developing Countries (United Nations publication, Sales No. 80.II.B.5).

9/ See World Industry in 1980, Regular Issue of the Biennial Industrial Development Survey (United Nations publication, Sales No. E. 81.II.B.3), chap. IV.

10/ See Mineral Processing..., p .101.

11/ See World Industry in 1980..., p. 10.

12/ Ibid., p. 186.

13/ Ibid., p. 42, and World Industry since 1960..., p. 226

14/ For an analysis of these aspects see World Industry since 1960..., chap. X.

15/ Lima Declaration and Plan of Action on Industrial Development and Co-operation (PI/38).

16/ General Assembly resolution 35/56, annex.

17/ New Delhi Declaration and Plan of Action on Industrialization of Developing Countries and International Co-operation for their Industrial Development (PI/72).

18/ See World Industry in 1980..., p. 22. See also chap. V of this report.

19/ See Technological Self-Reliance of the Developing Countries: Towards Operational strategies, Development and Transfer of Technology Series No.15 (ID/262), p. 17.

20/ See World Industry since 1960..., p. 138.

21/ See Technological Self-reliance..., p. 4, and Industry 2000 New Perspectives (ID/237).

22/ See "The implementation of transfer of technology regulations: A preliminary analysis of the experience of Latin America, India and the Philippines" (TD/B/C.6/55).

23/ See "Review of systems for regulating technology inflows in selected developing countries" (UNIDO/IS.253), p. 2.

24/ See Technological Self-Reliance..., p. 15.

25/ Ibid., p. 14.

26/ See "The role of small and medium-sized enterprises: the transfer of technology" (TD/B/C.6/64).

27/ See Organisation for Economic Co-operation and Development, Development Co-operation, 1981 Review, (Paris 1981), p. 136.

28/ Ibid., p. 52.

29/ See World Bank, World Development Report 1982 (Washington, D.C.), table 5.

30/ See World Industry since 1960..., p. 288.

31/ Ibid., p. 289.

32/ See World Bank, World Development Report 1982..., p. 14.

33/ See Organisation for Economic Co-operation and Development, Development Co-operation..., p. 61.

34/ See World Industry since 1960..., p. 215.

35/ See Organisation for Economic Co-operation and Development, Development Co-operation..., p. 62.

36/ See World Industry since 1960..., p. 130.

37/ See Organisation for Economic Co-operation and Development, Development Co-operation..., table B.6.

38/ See World Bank, World Development Report 1982..., p. 35.

39/ See Organisation for Economic Co-operation and Development, Development Co-operation..., pp. 60-61.

40/ Ibid., p. 19.

41/ See World Industry since 1960..., p. 293.

42/ See United Nations Centre on Transnational Corporations, "Salient features and trends in foreign direct investment" (ST/CTC/14), p. 16.

43/ See World Industry since 1960..., p. 296.

44/ See "Financing of manufacturing in Africa" (UNIDO/IS.256), p. 54.

45/ See World Bank, Annual Report 1981 (Washington, D.C.), p. 130.

46/ Ibid., table 5.

47/ See "Financing of industrial enterprises and financial repression in Latin America" (UNIDO/IS.252).

48/ See World Industry since 1960..., p. 312.

49/ See "Financing of manufacturing in Africa"..., p. 26.

50/ See World Industry since 1960..., p. 149.

51/ Ibid., p. 142.

52/ See "Export processing zones in developing countries" (UNIDO/ICIS.176).

53/ See World Industry in 1980....

54/ See A Statistical Review of the World Industrial Situation 1981 (UNIDO/IS.292), table 1.7.

55/ See World Industry since 1960..., p. 143.

56/ Ibid., p. 93.

57/ GATT activities in 1973 (Sales No. GATT/1974/3).

58/ See Trade and Development Report, 1982 (UNCTAD/TOR/2, vol.II), p. 32.

59/ See General Agreements on Tariff and Trades, International Trade 1980/81 (Geneva), p. 11.

60/ See World Industry since 1960..., p. 18.

61/ See Trade and Development Report, 1982..., p. 34.

62/ See World Industry since 1960..., p. 157.

63/ Ibid., p. 132.

64/ See the series of studies on ASEAN regional co-operation in the field of industry, especially UNIDO/IS.281 and UNIDO/IS.310.

65/ See "International flows of technology" (UNIDO/IOD.326), pp. 189-219.

66/ Ibid.

67/ Ibid.