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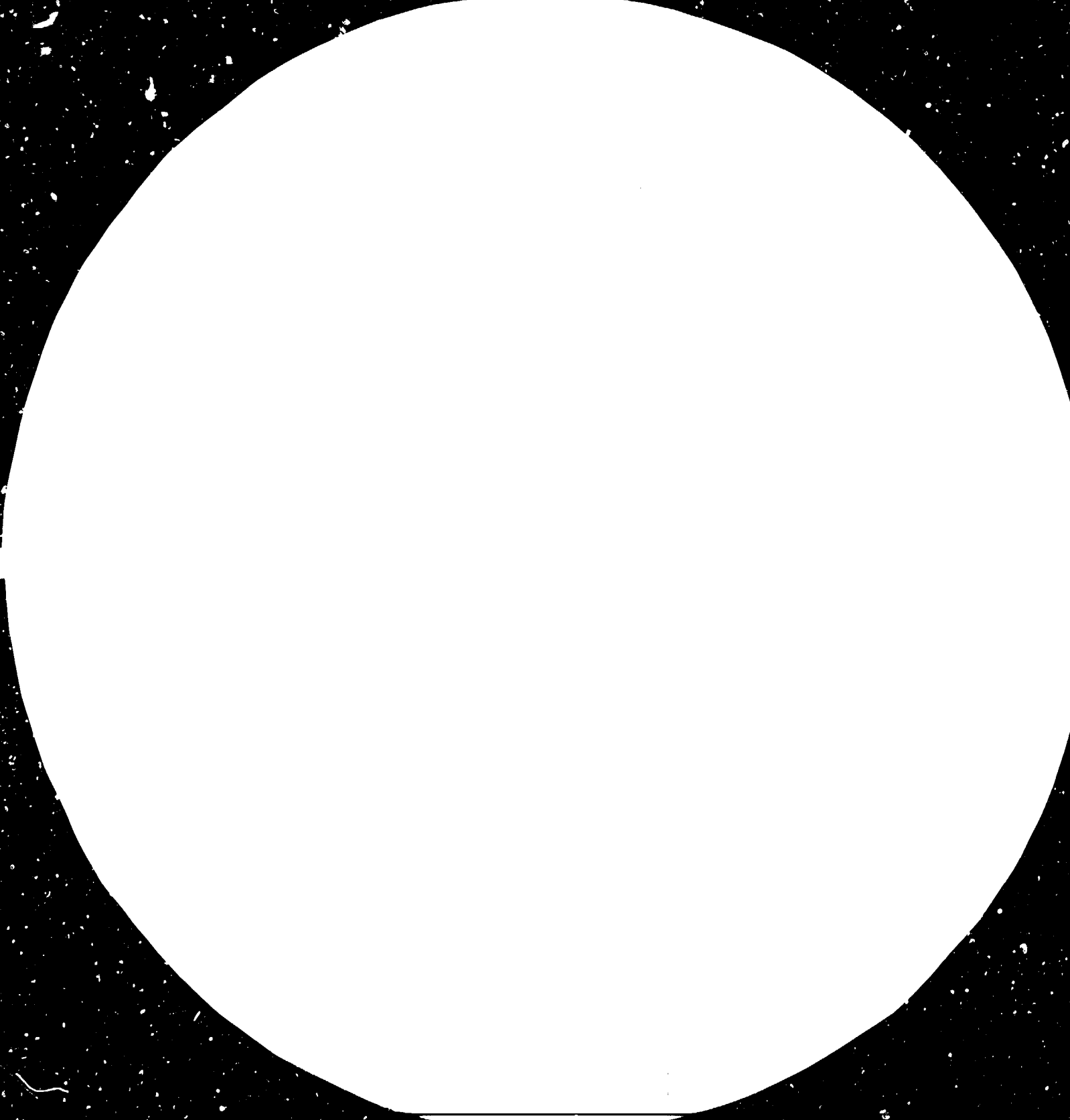
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ENTERPRISE TO ENTERPRISE COOPERATION  
AMONG DEVELOPING COUNTRIES: ELEMENTS  
FOR A GLOBAL STRATEGY<sup>\*</sup>

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\* This document has been produced without formal editing.  
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ENTERPRISE TO ENTERPRISE COOPERATION AMONG DEVELOPING COUNTRIES:

ELEMENTS FOR A GLOBAL STRATEGY

CHAPTER I

THE ISSUE AND ITS CURRENT STATUS

The issue

In the last few years an increased interest on the role of enterprise-to-enterprise cooperation among developing countries (ETEC) emerged in different scenarios and fora of analysis, debate and policy making of international economic relations. Ranging from academic research on the "new multinationals" of the Third World, bilateral arrangements and regional statutes for the promotion of Third World joint ventures, new governmental incentives in a few "NICs" towards technology exports to a number of Programmes and Plans of Actions undertaken by international organizations - (+) there seems to be general consensus on the need and the advantages of an increased ETEC.

The main purpose of this paper is to provide ideas and action -- oriented proposals for setting up and improving ways and instru-

- 
- (+) The issue of ETEC and other forms of industrial collaboration among developing countries is presente in virtually all major conclusions of international conferences on development issues. For example, in the Buenos Aires Plan of Action invited the Governments of Developing Countries "to endeavour and undertake measures or to strengthen existing ones to encourage and maintain co-operation and contacts between the enterprises - and national public institutions and those of other developing countries, in order to stimulate a much closer technical collaboration". This recommendation was re-emphasized in the CARACAS Programme of Action and in the recommendations adopted during the "Meeting of Heads of National Technical Cooperation Agencies of Developing Countries" in Tunis, October 1982.

ments to mobilize the potential of ETEC at the company, industry, country and country-group levels. Rather than on the absolute lack of such ideas -the antecedents just mentioned convey a number of initiatives, steps and recommendations- the need -- for this exercise is based on the evident problems still persisting for the adequate conceptualization and treatment of the subject in terms of concrete economic policies and international -- actions. To a great extent these difficulties are explained by - the double nature of the ETEC concept: an empirical phenomenon, shown up by recent trends of the international economy, with all its biases and shortcomings; and a political issue, a "normative fact", or new flag in the development process of the Third World which should have a number of desirable attributes.

In effect, the debate about ETEC under its several labels -for the terminology see below- started well before its existence in real life was first noticed and measured. The first phase of the issue was almost entirely dominated by policy and legal thinking (1). Little attention was paid to what was going on in real life. -- From the mid-sixties to the mid-seventies, ETEC was dealt with - purely as a future instrument to be promoted in order to react - to certain challenges and to achieve certain objectives of developing countries. The main sources of this normative bias were, - on the other hand, the demands of regional integration schemes -

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(1) See E. White, Joint ventures among developing countries; the issue of correct policies, in Pavlic et alia (Eds.), The --- Challenges of South-South Co-operation, Westview 1983.

which started to flourish in the Third World two decades ago, -- and almost invariably called for "regional multinational enter--prises" to channel industrial complementation programs and exploit the scale economies brought by integrated markets. On the other hand, the simultaneous emergence of economic nationalism in many DCs, reflected in the disappointment with the historical record of TNCs of advanced countries in the foreign investment and technology transfer process. This prompted the view of horizontal -- ETEC as an alternative, a new force to be created in order to channel productive resources within the South in better, more -- equitable terms and conditions, and to countervail the monopo---listic power of big INCs from the North.

Such great expectations explain the proliferation during the late sixties and seventies of legal statutes or régimes providing frameworks and guidelines to promote the birth and protect the development of ETEC, usually under more or less strict --- structural and behavioural patterns. They also explain the -- original heavy emphasis on state sponsored projects, specially if they involved multinational ventures in capital intensive - activities of strategic sectors. For reasons which will be discussed later in this report, most of this institutional and -- juridical efforts is still in paper.

But the issue of ETEC entered into a new phase by the mid-seventies, with the first empirical data brought by reports about - the increasing significance of the international activity of - DC firms, very often through joint ventures in other DCs and -



growing out from factors much more spontaneous than those predicted or desired by the first normative approaches.

In this paper we will argue that this phenomenon of natural mobilization of ETEC in the Third World results from the maturation of forces in the economic development of developing countries, reinforced by structural changes in the world economy; and that it should be taken as the basis and the scenario for further policy making and action-oriented programmes, instead of trying to devise de novo entities and structures. At the same time, we will emphasize the existence of a number of distortions, asymmetries and shortcomings in the present ETEC trends, which may be corrected by appropriate policies and instruments in order to take advantage of the potential of this form of ECDC.

Let us now start by a brief account of the main patterns of -- ETEC in the real world of today.

#### The empirical evidence

Intra-developing country enterprise-to-enterprise cooperation is in the 1990s far from being just a matter of prescription, intellectual speculation or political advocacy. The past decade has witnessed the emergence of new world capital, technology and skills suppliers among the ranks of the developing countries. And these countries have also learnt to rely on each other in many fields of enterprise-to-enterprise cooperation - hitherto dominated by advanced-country firms.

A large variety of ways and means of cross-country, enterprise-to-enterprise cooperation, entirely new in the context of relations amongst developing countries, began being implemented and rapidly expanded. The myriad of alternative channels and mechanisms used includes direct foreign investments, licensing agreements, supply of engineering and technical services, sale of complete industrial facilities, training of personnel, rendering of R&D services, bipartite and multipartite joint-ventures and industrial cooperation agreements.

Table I reveals the magnitude and diversity of technology-related flows originated in some advanced developing countries - and gives different dimensions of the trend towards interdependency (+).

Overall, the share of developing country markets on manufacturing exports by all developing countries has almost tripled during the 1970s. Save for Korea, the countries reviewed have increased their exports to other developing countries both in absolute and relative terms (in the case of India such a share remained stagnant). And within manufacturing exports, those consisting of capital goods have taken the lead in that direction.

Doubtless, the heaviest foreign direct investors within the de

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(+) The fact that most of our information regarding the flows reviewed concerns the most advanced developing countries - as suppliers does not entail a value judgement in favour of this trend. In this paper the need to generate a more balanced flow and greater reciprocity is strongly argued.



(\*) : Except when indicated, figures refer to accumulated metrical values. In some cases, percentages refer to number of observations.

(i) : Mostly Middle East

(ii) : These observations refer to 1970 and 1980 respectively.

Sources: Exports of Technology from Semi-Industrial Economies, by C.Dahlman and F.Sercovich, -- Wash. 1983 (revised version of a paper presented at the 1982 meeting of the American - Economic Association); Third World Multinationals, by L.Wells, Cambridge (MA), 1983; UNC TAD report TD/B/C.2/214 (Part I), 31.I.83: Comercio de Manufacturas y Semimanufacturas de los países en desarrollo (1980-81).

veloping world are firms from the most advanced members of that group. However, Table I shows that developing countries tend - to engage in direct foreign operations in countries with a low er level of development: 72 per cent of the subsidiaries on a sample of 860 conform to such a pattern, thus reinforcing hori zontal interdependency.

But the most outstanding feature of growing intra-developing - country interdependence is that this process has been increas- ingly relying on the transfer of knowledge, skills and experi- ence; thus breaking with a pattern whereby such transfers were wholly originated in advanced industrial countries.

The overwhelming proportion of such transfers originated in de veloping countries goes to other, less developed, developing --- countries.

In terms of the composition of the flows, there are a number - of industries that concentrate a large proportion of the obser- vations. They are: textile and apparel, steel, pulp and paper, food and beverages, chemicals and various branches in capital goods. These industries are characterized by a number of com- mon features: they usually are among those that developing --- countries set up earlier in their industrialization process; - widespread diffusion of knowledge has taken place so that tech nology is not an important barrier to entry to the industry and a variety of sources are available in the world market; they - often generate a market for domestic capital goods and engineer ing service capacity.

At the same time, an evolving pattern of specialization in intra-developing country technology flows is emerging. Most of the countries have added acquired advantages to their own natural advantages. As a result of country specific conditions related to their resource endowment and policy orientations towards the development of their domestic capabilities it is observed, for instance, that Argentina is outstanding in nuclear energy, pharmaceuticals and agricultural machinery; Brazil in biomass and some metalworking industries; India in power generation and distribution; Korea in cement, plywood and lumber and shipbuilding; Mexico in petrochemicals and glass; Peru in seafood processing; and so on.

Most of enterprise-to-enterprise cooperation flows are channelled by manufacturing (particularly capital good), engineering and consulting and construction companies. Most of them are locally-owned enterprises. When they are not, what they supply is largely based on experience, skills and knowledge acquired in the home developing country (1).

Although a large proportion of the enterprises concerned tend to be large (by developing country patterns) there are also important cases of smaller innovative firms that are actively involved. However, their activity in this field is not as regular

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(1) See C.J.Dahlman and F.C.Sercovich: Exports of Technology from Semi-Industrial Economies, paper submitted to The 1982 Meeting of the American Economic Association, New York, Dec. 1982 (revised version forthcoming).

as that of firms that consider the undertaking of (whether --- equity or contractual) joint-ventures abroad as a natural extension of their activities at home: such is the case of construction engineering and consulting, and capital good producing enterprises for which what they do when they engage in foreign -- operations is not fundamentally different of what they do at -- home (1).

The rising tide of ETEC is consistent with a number of structural changes in the economies of developing countries and in the world economy. Certainly one important factor is the process of accelerated accumulation of physical and technological resources in a number of developing countries during the last decades.

High growth rates in several nations of Asia and Latin America have given rise to a diversified production base, coupled with an increasingly experienced domestic entrepreneurial sector. In -- some of these countries, import substitution policies under -- high protectionist barriers and the expanding role of the state in the development of producer good industries and infrastructure works stimulated the emergence of domestic firms. Penetration of TNCs investments during the 50' and 60' had a mixed impact, leading to de-nationalized industries in some cases, but also helping to the build-up of local capacities through the exposure and - experimentation with foreign technology. Later, the introduc--

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(1) See P.C.Sercovich: The Demand of Technology Exported by --- Latin American Enterprises, BID-Intal (forthcoming).

tion of government controls on imports of technology was aimed at protecting local enterprises. In other developing countries with more recent and faster process of industrialization, the strategies combined a strong outward-looking approach with the promotion of domestic firms. During the second half of the seventies, the emergence of capital-surplus Third World countries - after the oil price rises of 1973-1974 added a new stimulus to South-South productive cooperation.

As already pointed out, the growth of the manufacturing sector was sooner or later to be accompanied by an impressive export performance which had its main markets in other DCs, thus creating a new international scenario for domestic firms.

Meanwhile, at the global level the expansion of world trade, - the accelerated diffusion of technological information ---- among countries, the sudden improvement of the access to financial markets during several years, the increasing availability of services and organizations specialized in international investment operations, such as trading companies, engineering -- firms, banks and insurance companies, was giving rise to an appealing environment for the international projection of more - and more firms. Thus the last decade witnessed the emergence - of new international actors, including small and medium-sized enterprises of developed countries, state-owned companies of some socialist and a few market economy countries; and companies -- from Third World countries. In brief, the growing presence of -- the latter amongst world wide capital and technology suppliers



and the outward thrust whereby they project themselves towards - other developing countries is a long term trend explained by --- structural transformations in the international scenario.

To sum up, regarding the actual and potential trend towards -- the transfer of real resources among developing countries by - means of enterprise-to-enterprise cooperation, the following - observations are in order:

- . In the developing world as a whole and, particularly, in semi-industrial countries there is a vast supply of technolo-gy, skills and experience that only now begins to be uncovered, largely through a growing flow of horizontal enterprise-to-enterprise technology transfer operations and by other - means of cooperation;
- . It is being increasingly acknowledged that there is a general phenomenon of technological maturation and mobilization of technological capabilities in the developing world that --- calls for a more active participation by developing countries in the international transfer of resources and flows of co-operation;
- . Horizontal cooperation flows are further reinforced by ---- changes in the world economy whereby developing countries - have little or no alternative to rely on themselves in order to deploy their capabilities and develop their resources;
- . Resource endowment and the domestic policy environment ---- strongly influence the rate and direction of acquisition of mastery on technological management and organizational knowu

ledge, skills and experience at the level of each specific --- country concerned. As a result, a pattern of cross-developing country specialization is evolving whereby complementarities - are becoming increasingly explicit as a basis for reciprocal - cooperation.

Does ETEC described in this manner satisfy the expectations re-  
garding its role as an instrument of ECDC?

Certainly the mere existence of such increased phenomenon of --- Third World business cooperation could be considered as a pro--- gress. Although insufficient for evaluating the benefits for the countries and firms concerned, the existence of such activity is a necessary pre-condition for a succesful ETEC. Moreover, there are some important benefits which could be observed prima facie in the mere existence of ETEC.

It implies, for recipient countries, more alternatives for se--- lecting foreign inputs, and thus an improved bargaining power -- vis a vis international suppliers of productive resources. For - home developing countries, the benefits are not different from - the advantages deriving from investments abroad and technology - exports by any country, as revealed by the experience of the ad- vanced economies of the North. From this broad viewpoint ETEC -- implies a strong potential of self-reliance for the Third World.

Yet the expectations regarding the role of ETEC usually go well further,

Does ETEC serve to narrow the gap between the more advanced

and the poorer developing countries, or rather it tends to ----  
strengthen the increasing asymmetries within the Third World?

Does ETEC play a mere complementary role of big TNCs of ad--  
vanced countries, perhaps as their subcontractors in a new in-  
ternational division of labour, or does it serve to compete with  
them and challenge their advantages?

Is ETEC confined to traditional sectors and niches abandoned  
or neglected by major corporations or does it allow to develop  
relevant activities and to participate in the world technologi-  
cal frontier?

Does ETEC fulfill a positive role in the programmed speciali-  
zation and distribution of industrial activities among develop-  
ing countries, or is it basically a mere reproduction of mar-  
ket oriented decisions of profit maximizing private investors?

Does ETEC channel more appropriate technology in better terms  
and conditions than TNCs?

Does it serve to mobilize local resources and to expand external  
markets?

ETEC is a phenomenon taking place at the micro level and thus  
its effects may be ultimately judged on a case by case --  
basis. Moreover, because of its incipient development, the ---  
question about the extent to which its structure and behaviour  
can be corrected and oriented by adequate policies and incentives  
is also relevant.

The available evidence, still far from satisfactory, throws -- however some light about the main advantages and problems of ETEC and suggests a number of areas where its performance may be strengthened and improved. We will deal with these aspects in the next chapter. But before doing so, let us briefly discuss some definitional issues.

### Terminology

There is no conventional definition of what is meant by ETEC.- For some observers, ETEC must have a qualitative component in order to be differentiated from traditional business cooperation, along the lines implicit in the above listed questions.- Thus the same arrangement may or may not merit the ETEC label if a normative definition is applied, but it is obviously impossible to have a global agreement about the criteria for such definitions.

Regional integration programmes have attempted to provide detailed definitions of ETEC in the framework of legal statutes and incentive régimes for the promotion of "regional multinational enterprises". Usually this definitions are based on the number of participating countries, the ownership shares of the partners, and the nature of the project or activity carried -- out through ETEC.

For the purpose of this report a more taxonomic, descriptive - method of definition is needed.

ETEC will then cover all arrangements between enterprises of two or more developing countries for the joint development of a new or existing industrial project.

ETEC usually involves the mobilization of productive resources among countries (capital, technology) but such transfers are not essential to the concept, which accepts also arrangements whereby a joint project is developed via specialization and/or coordination of activities of enterprises in two different countries.

On the other hand ETEC implies a certain degree of sharing of control, profits and/or risks by the cooperating actors, for more than a very transitory period, thus excluding from the concept pure one-shot operations, such as simple export sales. Yet to the extent that a short term deal conveys the transfer of a productive resource among enterprises, and not just a good to be sold in the market of the recipient country, it may fit into the ETEC concept. Obviously the "cooperation" component also excludes direct investment operations in 100% owned subsidiaries, although parent-subsidiary relationships may fulfill roles comparable to cooperation among independent enterprises.

ETEC may be organized in the form of equity and not equity arrangements. The former includes joint ventures whose ownership and control are shared by investors of two or more countries. Examples are the creation of a common subsidiary or a common

holding, and the purchase of shares of an existing enterprise. Equity joint ventures are usually incorporated according to -- the law of the host country; yet the governments of the participating countries may wish to submit the creation of a joint venture to an international treaty or juridical statute.

Non-equity arrangements include cooperation through various -- contractual forms, such as technology agreements, industrial - cooperation, production sharing and specialization agreements, etc.

Hence ETEC, apart from the nature and origin of the cooperating enterprises -belonging to developing countries- doesn't differ in principle from the organizational forms of world-wide international business collaboration. Yet the ownership and/or the control of companies participating in ETEC should be in -- the hands of domestic investors of developing countries. It is acknowledged that TNCs subsidiaries may have a positive role - in industrial cooperation among DCs, but the focus should be - on the increasing participation of indigenous firms. Of course, these can be private or state-owned.

Finally, ETEC may result from "spontaneous" decisions of individual enterprises responding to market forces and profit opportunities, or be the outcome of programmed, concerted actions of government of several countries for the development of joint projects, either within bilateral or multilateral (i.e. regional integration) plans.

## CHAPTER II

### ASSESSMENT OF POTENTIAL OF ETEC

The identification of strategic affinities and areas of common interest is the starting point of any general discussion on cooperation among developing countries -particularly that channeled by means of enterprise-to-enterprise arrangements.

The common predicament of these countries relates to various issues. One of them is the need to increase their influence on global decision-making centers and circles, so as to place it in line with their actual weight in the world economy - in terms of population and resources.

Another concerns the need to offset the wide range of disadvantages associated to their late-comer status. Unfair terms in commercial transactions; lack of reciprocity regarding access to markets and resources, and weak bargaining positions are among them.

These are some of the reasons why efforts are made and proposals put forward aimed at devising a joint strategy whereby self-reliance can be reinforced through collective action.

But beyond stating the underlying, long-run affinities and common interests in terms of development objectives and social welfare, the need also exists to carefully examine the scope and nature of potential intra-developing country cooperation --

flows as well as to assess their feasibility and likely returns in a more precise way than that available so far.

Several questions arise in this connection, i.e.: What developing countries have to offer to each other? By what means? What benefits are to be drawn through reciprocal exchanges? How are these benefits to be shared? What are the biases, costs and shortcomings that affect this potential?

The question as to what developing countries --- have to offer to each other can be tackled at three levels; that is, country, sector and enterprise.

#### Country level potential

Statistics and conventional wisdom tell us that countries evolve at different rates. Although the international system is supposed to stand by principles of equality for all states and individuals, it is far from assuring development parity across countries. Unevenness is a conspicuous attribute of our contemporary world. It is partly a product of different resource endowments and partly a result of history.

Advanced industrial countries enjoy long-standing man-made advantages through early human capital formation, technological development and the benefits they draw from their first- or second- comer status. Most conventional development indicators place them as a privileged group in terms of social welfare, -- education, scientific and technological achievement and economic



power. The contrast with respect to the rest of the world is dramatic.

Having said this, it is necessary to acknowledge that within the developing world differences are quite remarkable; that it is far from being an homogeneous block of countries. Resources are very unevenly distributed across them because of natural and historical reasons. Some of these countries have achieved relatively high development standards whilst others have remained extremely backward. And what is worse, differences have increased, rather than diminished, over time.

Table 2 shows the way the degree of disparity among developing countries has evolved between 1960 and 1980 in terms of a variety of indicators regarding the economy, demography and health and education. All economic and educational indicators considered show an increase in the degree of disparity; similarly, the disparity index has gone up in three of the six demographic and health-related indicators (1).

This evidence suggests that skills, experience and knowledge also grow unevenly amongst developing countries, somehow resembling the pattern for the world as a whole. This circumstance, if looked at in conjunction with other dimensions that -

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(1) Two of the three dimensions where disparity has decreased, i.e., crude death rate and infant mortality rate may be accounted for the fact that access to related improvements was somewhat independent from general development performance.

MEASUREMENT OF INTRA-DEVELOPING COUNTRY DIFFERENTIATION

(Disparity Index) (+)

	1960	1980	(Number of observations)
<b>I. Economic Indicators</b>			
1. Share of industry in GDP .....	30.51	34.97	(63)
2. Gross manufacturing output per capita.....	11.97	19.50	(20)
3. Energy consumption per capita (++)..	14.03	38.88	(91)
4. Share of non-manufact. exports on - total exports.....	28.48	37.56	(1)(77)
5. Percentage of labour force in industry.....	32.82	35.63	
<b>II. Demographic and Health-related Indicators</b>			
1. Urban pop.as percentage of total population.....	39.75	43.57	(98)
2. Crude birth rate per thousand population.....	35.68	39.91	(99)
3. Crude death rate per thousand population.....	43.76	34.44	(99)
4. Life expectancy at birth.....	38.47	42.27	(95)
5. Infant mortality rate.....	42.44	37.50	(95)
6. Population per physician.(+++)..	39.80	23.22	(2) (86)
<b>III. Educational Indicators</b>			
1. N% enrolled in primary school as % of age group.....	34.81	34.93	(1) (91)
2. N% enrolled in secondary school as % of age group.....	28.53	46.39	(1) (84)
3. N% enrolled in higher ed. as % of - pop. aged 20-24.....	12.83	33.10	(3) (46)
4. Adult literacy rate.....	36.86	40.11	(2) (65)

(+): The Disparity Index  $DI_k$  was constructed so as to give maximum value to a perfect uniform distribution and to weight - observations lying away from the median slightly more than those near by. For any two standardized series (the range - being identical for both), ten equally distant divisions -- are made and the number of observations in each is counted. The divisions are ranked according to the counted distance from the division where the median is found. The weight for any given division is then:

$$DI_k = \sum_{m=1}^{10} \left( \sum_{i=1}^{\text{count } Q} 1/i + \sum_{j=1}^{|\text{div } Q - \text{div med}|} 1/j \right)$$

and the overall  $DI_k$  is the simple sum of the 10 weights.

(++): One extreme value was eliminated.

(+++): Two extreme values were eliminated.

(1): 1979      (2): 1977      (3): 1978

Source: Own elaboration based on World Development Report, The World Bank, Washington D.C., 1982.

Note: The authors wish to express their appreciation to the statistical and computer assistance given by Michael Anderson.

concern cross-country and cross-sectoral distributions opens up important opportunities and challenges for ETEC among developing countries.

It is clear, on the one hand, that there is a relatively small group of developing countries that have enjoyed an important advance in terms of industrial experience (the so-called NICs). Then there comes a second, less developed but much larger group of countries that have already given a number of steps in the development of industry and human capital formation. The first group has entered more widely into capital goods and engineering industries, with important inroads in the development of technical and management skills. The second group of countries is in the process of doing so.

Then comes a third category of countries that have built up considerable knowledge and experience concerning a few specific sectors. This third category cuts across the other categories. It is closely linked with availability of specific natural resources. These resources may be available in many developing countries but with varying intensities whereby although related technologies are of interest to all of them, only a few have revealed a clear advantage in pursuing their development.

Examples of this category may be the masteries of the technologies relative to the production of paper from bagasse in Cuba and Mexico, biomass based fuels in Brazil and Mauritius, production of palm oil in Malasia, etc.

A fourth category comprises capital-surplus developing countries benefited by the accrual and accumulation of oil revenues during the last decade. Most of these countries, particularly in West Asia, are characterized by their relatively low level of industrialization, limited size of their markets and shortage of skilled manpower.

Finally, there is a residual category of Third World Countries in all developing regions, where the process of industrialization has virtually not started and whose gap with the other categories of developing countries is in most cases larger than the one existing between these and the advanced economies of the North.

Let us see how the existing disparities are reflected in terms of ETEC flows.

We have already noted that the overwhelming share of present flows are carried out between advanced developing countries, and relatively backward countries serving as hosts of capital and technology supplied by the former. The direction of these flows is however concentrated on countries which have achieved a certain degree of industrialization and/or offer attractive markets. Least developing countries are not significantly present in ETEC flows, most of them stemming from spontaneous, profit maximizing motivations in the context of highly imperfect and distorted markets.

It is true, however, that despite this similarity with -

the behaviour of TNCs of developed countries, developing country firms tend to show a higher propensity to do business in countries at lower levels of industrial development and/or small markets. In fact, countries such as Bolivia, Paraguay and the Central Americans are hosts of important flows coming from more advanced developing neighbors such as Argentina, Brazil and Mexico, which in some cases exceed the foreign investment position of developed countries, and the same can be observed in the case of India and its presence in some of the least developed countries of Asia and Africa. Geographical and cultural proximity explains in part this pattern, but in addition, there seems to work an intrinsic difference in the motivation to go abroad of developing country firms: their threshold to take an opportunity for making profits is usually much lower than in the case of large TNCs.

Reciprocal flows of ETEC are much less significant than in the case of relations among developed countries, who tend to orient most of their investment flows -with some exceptions like Japan- to other rich countries. In this sense South-South flows differ significantly from North-North ones. The higher degree of reciprocal openness and productive diversification of developed countries, and the historical bias towards the North of developing countries, are among the reasons for such difference. Also the overlapping or parallel sectoral profiles of semi-industrial developing economies conspires against cooperation. But the above mentioned incipient specialization of a number of developing countries in certain branches of industry has given rise to a potential for "horizontal" ETEC which has already

started to grow, as revealed by the experience of some Latin American and Asian countries. In addition to this inter-sectoral -- kind of reciprocal ETEC, some developing countries are already - in a position to cooperate on the basis of intra-sectoral flows based on relative advantages acquired in certain industrial segments or on the changing macroeconomic conditions of the same -- sector in each country.

The emergence of capital-surplus oil-rich developing - countries have added another source of reciprocal, albeit not -- symmetrical, ETEC with other developing countries. Oil revenues have given rise to a huge market for industrial projects in ---- these countries, part of which has been supplied by semi-indus-- trialized developing countries; and such funds have been also de voted to the creation of joint ventures on a regional -i.e., in tra-arab- or inter regional basis in other Third World countries -i.e., arab investments in East Asia and Africa.

However, there are certain limitations in this kind of cooperation: first, the attraction of advanced countries markets, where such resources don't suffer any disadvantage as in the case of the technologies of other developing countries; and second, - the unstable nature of the factors and conditions on which capi- tal surpluses and their effective control are based.

From this description it appears that there are two -- scenarios of South-South ETEC which are dramatically deserted: - cooperation with the least developing countries, and cooperation among non-advanced developing countries. The other types of ETEC

have grown more or less spontaneously largely under market oriented incentives because certain basic preconditions were available -i.e. the existence of local enterprises and attractive investment conditions. The last two categories pose a great challenge for policy makers which envisage ETEC as an instrument for global self reliance of the South rather than for improving the position of an élite of developing countries, and certainly such challenge could not be faced by simply stimulating or correcting the market forces. Yet poorer developing countries can be helped through -- ETEC cum additional mechanisms to mobilize their potential contribution to investment and technology flows, represented by their human and natural resources.

#### Sector level potential

Turning now to the potential for ETEC from the sectoral viewpoint, we know from the present flows that the scope is fairly ample and varied. Intra developing country flows predominate in mature industries, with low technological barriers to entry. Although small scale projects in traditional sectors such as metalworking and food are more numerous, significant ETEC operations are carried out in heavy industries and capital intensive sectors such as steel, paper, large capital goods, and there are several examples of cooperation in high technology activities -- such as pharmaceuticals and nuclear energy. This wide variety of sectors reflects the diversification achieved by the manufacturing industries of advanced developing countries.



It is true that, to some extent, ETEC is concentrated on sectors which are being phased out from developed countries and where developing countries firms are substituting TNCs. Yet apart from being a supplement of North-South flows, operating in market segments or niches now neglected by developed country suppliers, ETEC has other significant roles in the world market of today.

In fact, developing country sources for ETEC may be -- either competitive, complementary, or else, open the way to wholly new flows in respect of those which already exist -- largely with advanced industrial countries. In areas such as mineral resources exploration and development, agricultural machinery, -- various lines of capital goods, they are often competitive; in a number of process and mechanical industries such as petrochemicals, pulp and paper, consumer durables and components they are complementary (although in some sub-branches of these industries they are also competitive); finally, in many agricultural-based industries, particularly those related to alternative biomass energy sources and foodstuffs they lead to the creation of new flows (1).

The sectoral potential for ETEC has different implications according to the categories of developing countries invol-

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(1) Sometimes the degree of differentiation between seemingly -- competitive technologies may be a matter of judgement as --- when it refers to some adaptive attributes such as flexibility towards downscaling due to adaptive experience. Therefore, these distinctions cannot be made too sharp. The case of complementarity is perhaps the most clear cut although not frequent in arms-length transactions.

ved. For less developed developing countries, the earlier industrial experience of more advanced developing countries may be a unique way for starting up the first phases of the industrial -- sector or to initiate new productive activities. Among more advanced developing countries, ETEC is a channel for upgrading the technological experience and deepening the development of existing sectors; for undertaking new activities by pooling resources and markets, and for improving the bargaining capacities for the importation of new technologies from developed countries.

### Enterprise level potential

The third dimension of the ETEC's potential can be observed at the enterprise level. Of course the present flows among developing countries reveal that there is an increasingly large number of firms of domestic, private and public, capital which are able to engage in foreign investment or technology transactions obeying to market stimuli and enjoying little or no government support. The evidence indicates, however, that even in the more advanced developing countries it is an élite or small group of companies that have adopted ETEC as a normal feature in their operations. Except for a few big manufacturing firms or large conglomerates and some engineering and consultancy companies specialized in the export of technology, most of the experience is related to one-shot, isolated operations which do not lead to a systematic strategy of ETEC. Moreover, in these and other developing countries there are many firms enjoying the same advantages of the ones with ETEC experience, which have remained outside the picture. In short, the potential for ETEC seems to be significantly under-represented by the present stock of firms actively participating in this process. There is no doubt that this potential should and may be developed through encouragement policies, especially if one considers that advanced countries, despite and in addition to their structural advantages, utilize a number of active strategies and generous incentives in order to promote international investments and exports of technology.

The ETEC potential at the micro level should be also -

evaluated in terms of the contributions and advantages that can be transmitted or shared among developing country firms.

#### Potential advantages of ETEC

Looked from a broad perspective, it is clear that by reciprocally opening their markets, developing countries often lend themselves an apt milieu to further the development of their knowledge, skills and experience and diffuse the fixed costs involved, on the grounds of commonality and complementarity of needs, resources, market conditions and historical and cultural backgrounds. Through ETEC not just the direct agents involved interact, but also their productive systems enter into contact, whereby opportunities arise for mutual reinforcement and reciprocal learning in the development of their productive forces. The main advantages of ETEC lie on the crucial technology area.

Through ETEC developing countries have to offer to each other knowledge, experience, information and skills related to: (i) headstart in experience in particular sectors; (ii) adapted and updated technologies across a broad spectrum of activities; (iii) breakthroughs in selected sectors; and (iv) expertise concerning a vast array of process, project, plant and production engineering activities.

The potential advantages of ETEC differ according to the role of the firms participating as suppliers or recipients of cooperation flows. From the viewpoint of the home country firms, ETEC may be a way to enter into new markets, to preserve

existing export markets, and to obtain new sources of income (+). Investing abroad or selling technology is also a possible way to compensate the highly variable cycles of domestic demand and absorb the manpower in periods of local recession. Yet the non-pecuniary benefits drawn by suppliers may be equally or more important. (See further below).

From the viewpoint of host developing countries and recipient enterprises, the advantages of ETEC lie around the concept of "appropriateness" of the projects and resources offered by firms of other developing countries. The evidence indicates that such appropriateness can be found in:

a) smaller scale or scaled down technologies, simpler and less automatic than those obtained from developed countries;

b) more labor-intensive techniques which are often related to small scale manufacture;

c) higher flexibility of equipment which can be adjusted to different product lines and specifications;

d) skills for using locally-available inputs and raw materials and therefore the lower degree of reliance on external sources;

e) ability to work in tough environmental and climatic conditions, as well as in turbulent, changing and over-regulated

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(+) In the case of Brazil, the value of technology exports grew about twice as fast as that of technology imports in the period 1966-1979, at the end of which incomes from exports represented 36.4 per cent of expenses in foreign technology. See Sercovich, Brazil as technology exporter, BID, Wash., 1981 (mimeo). In the case of India, earnings from technical fees represented about 15 per cent of technical fees paid abroad. See Iall, - Exports of technology by India, ICRIER, New Delhi, 1982.

business climates;

f) lower costs of skilled manpower, particularly in the field of engineering and consultancy services;

g) ability to replicate and introduce existing international innovations whose import is prevented by market imperfections;

h) transfer of technology in a fuller and more complete way, as a result of the lower incidence of proprietary knowledge and monopolistic practices;

i) ability for massive training of unskilled people, such as in construction works;

j) more favorable foreign exchange impact, as a result of lower propensity to import, to remit profit and royalties and to use of transfer pricing mechanisms (+).

One of the most remarkable contributions brought about by the new ETEC flows among developing countries lies on that, - through them, capabilities to use and organize the elements of - technical knowledge are transferred, over and above the transfer of the elements of technical knowledge themselves. In this sense, ETEC among developing countries entails genuine new opportunities largely absent in ETEC with advanced industrial countries.

Finally, developing country firms are more likely to accept a higher local participation and control in their projects.

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(+) See Eduardo White, Joint ventures among developing countries and industrial development, UNIDO, 1982.

First, when they go abroad they seem to be more propense to adopt joint ventures or other associated structures with domestic companies; second, they are in general less reluctant to be minority partners TNCs from advanced countries. Such behavior is explained by the lack of overseas experience and shortage of financial resources of firms that, whatever their position and size - in their own domestic markets, appear as small actors in the international scenario. In addition, their technological advantages and marketing skills are not of the kind that stimulates internationalization through full ownership and control.

#### The shortcomings

The evaluation of potential advantages at the enterprise level must be weighted against a number of shortcomings observed in the ETEC flows.

Actual transfer of knowledge, skills, information and experience in ETEC flows depends, in order to take place, upon a number of circumstances pertaining to both parties.

These circumstances have to do with both, attitudes -- and aptitudes. The latter, in turn, depend upon both, the enterprises directly involved in the agreement and the nature of their relationships with the environment.

Enterprises in developing countries that control technical knowledge may be amenable to transfer it -or they may not. In part, this is contingent to their strategic entrepreneurial position in the international market. Thus, for instance, when -

they are part of transnational groups with vested interests across frontiers, it is likely that their attitude towards transferring knowledge to other enterprises located abroad will differ from - privately or state-owned domestic enterprises. This, simply be-- cause the opportunity cost and marginal benefit from doing so -- may be for them quite different (+).

In the case of domestically controlled enterprises, -- their capacity to transfer knowledge is very often affected by - their ignorance about the technology assets in their own hands.- When the potential supplier is a state owned corporation, the -- difficulties usually arise from the lack of an international --- orientation, due to the domestic responsibilities forced by the legal statutes of the company or the lack of motivation of risk averse public managers (++)).

It may also occur that even though the enterprise may be entirely willing to transfer its knowledge and teach to third enterprises what it learnt from others and through own experience, it may not have the actual ability to doing so. This may follow a poor development of its transfer skills; eg., ability to codify technical knowledge (plans, diagrams, formulations, equations, specifications) and to transmit it. Or, otherwise, it may result from external circumstances, such as dependence on third party -

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(+) This should not be taken as involving that in no case non-domestically-owned companies will be prepared to engage in ETEC operations; simply that they may be expected to behave according to different parameters; ie., those involved in - transnational maximization.

(++) See Eduardo White, Joint ventures of public enterprises from Argentina with other developing countries, ICPE 1984 (forth coming).



authorization to reveal information (+). Besides, developing --- country firms, particularly the medium-sized manufacturing companies with a potential for technology transfer through direct - investments and licensing contracts, are not frequently capable of assigning high skilled personnel to operate in foreign loca-- tions on a long term basis.

Another intrinsic weakness of developing countries suppliers has to do with the transitoriness of their technological advantages. In many cases the stability of joint ventures depends on the endurance of a technological advantage contributed by one of the partners. But in ETEC among developing countries, such -- edge may last until local firms may develop similar skills. Un-- less the technology supplying partner has continuing development activities leading to new innovations to replace the old ones, - which is not a usual situation in developing country firms, the joint venture may lose its attraction for the recipient party or be affected by the competition. Similarly, the advantages of --- small scale manufacture enjoyed by Third World firms tend to sur-- vive as long as the size of the joint venture project remains -- small in international terms. -as is usually the case. But they may tend to dissipate themselves as the recipient or the external markets develop, and large scale technology controlled by TNC be comes more appropriate.

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(+) There are means to overcome this kind of difficulty, which - is particularly damaging when the vetoed information pre--++-cludes free use and transfer of genuinely own information.-- For instance, by means of the setting up of third joint com-- panies.

The aptitude of supplier firms for ETEC may be also affected by non-technological factors. The scarcity of financial resources is an obvious one. In the case of equity joint ventures, supplier companies may suffer internal or external restrictions (the latter deriving from government controls) to send foreign exchange abroad, which only partially could be circumvented by the capitalization of equipment or capital goods. Besides, the evidence indicates that developing country parent firms have suffered serious difficulties in keeping track with the financial needs emerged from the evolution of their foreign joint ventures and eventually were forced to phase out prematurely. In the case of non equity joint ventures, the success may depend not only on the technological advantages offered but also on the financial conditions of the transfer. In many instances, particularly related to large engineering works, developing country firms are not in a position to match the terms presented by developed country suppliers.

Finally, the state and evolution of the domestic environment, in terms of macro-economic conditions and government policies, have crucial incidence in the capacity of domestic firms to engage in ETEC operations. Given the relatively small domestic markets of developing country firms, sudden changes in the local demand, the exchange rates and other aspects, may originate abrupt incentives to the transfer of capital or technology in one direction or the other. For example, domestic recession may be a factor for expanding abroad, but after a certain level it may affect the process of technological accumulation and with it the advan-

tages to be exploited internationally. Domestic firms are the -- first to be affected by the ups and downs of the economic cycle. In any case, the international capacity of these firms depends - greatly from a favourable climate for their development, includ- ing policies of control of foreign investment and imports of --- technology, and the promotion of technological development. Di-- rect incentives through tax, credits, guarantees and other advan- tages for the export of technology are also an important deter-- minant and could be an essential precondition for ETEC based on competitive bids in recipient countries, which is the case in -- many exports of technology.

Let us concentrate now on the recipient party.

We have already observed the unidirectional bias of -- ETEC. Most of this kind of operations take the shape of formal - supply/demand relationships whereby a supplier of technical know- ledge and skills from a relatively advanced developing country - reaches an agreement with a recipient enterprise from a relative- ly backward developing country, in close resemblance with North- South flows. The difference is, of course, that the supplier has to offer something much closer to what the recipient needs than usually do advanced-industrial firms -and under more favourable terms and conditions.

But beyond the benefits involved in getting a supplier that is more sensible and closer to what the recipient demands, including the effect of shortening learning times that stems --- from that, the unidirectional quality that often these flows en-

tail involves a number of shortcomings to be examined further below.

The recipient party may also have diverse degrees of willingness to adopt an active role in assimilating knowledge and information. Usually, there is in developing countries a strong inertial force favouring package deals with little transfer content on the grounds of risk-minimization (a rational for risk-aversion). This is particularly so when state-owned enterprises are concerned (and they are highly concerned in less developed recipient countries) because of the dicotomy they often show between entrepreneurial and management responsibilities. But it is also observed in private enterprises involved in large projects. Although many of these companies deal in innovation insofar as they follow market signs and technological trends in their technical choices, their innovative capabilities remain undeveloped.

The case is particularly dramatic when unused technical and engineering skills are observed in these countries because of lack of demand for project-related services which are largely furnished by advanced country technology and engineering and technical service suppliers.

But this apathy towards technological absorption by means of mobilization of own (both, potential and actual) technical resources may relate itself to actual difficulties which have little to do with attitudes and be, instead, more closely associated to other circumstances.

One of them is the sheer lack of technology assimilation capabilities associated to acute scarcities of manpower, - either just in the industrial sector or in the economy as a whole. In addition to that, lack of tradition of team, organized work and motivational problems therein may also hinder the exploitation of the learning potential involved in ETEC flows. Often, these characteristics lead to setting out extremely rigorous requisites imposing the use of domestic manpower and technical control of joint ventures that can only formally be fulfilled, - because of the weak absorptive capacity of the local party.

At the same time, even under difficult circumstances - regarding access to manpower, there often are islands of technical excellence represented by large domestic (frequently state-owned) enterprises or organizations which also engage in ETEC flows. These organizations make however little use of their capabilities in order to serve as catalyzers of third domestic party learning through subcontracting explicit diffusion mechanisms -- and other ways of channeling externalities.

The lack of technological awareness in host developing countries is particularly harmful for ETEC because the appropriateness of the other developing countries offers should be appreciated as such in terms of the peculiar advantages above mentioned, and often compared with alternatives from developed countries. The choice of technology from developing countries requires then, in the first place, an active attitude of recipient parties and other actors regarding the screening, selection and -

appraisal of different technology sources. This attitude may not be present in big enterprises enjoying monopolistic positions in protected markets, and therefore lacking the incentives to save costs through importations from developing country sources.

This way, both the effect of the environment on the enterprises directly involved in ETEC flows, and viceversa, in some way accentuate the effects of low levels of technology absorption capacity and prevents the exploitation of the learning potential involved in these flows.

The consequences stemming from a lack of articulation between whatever efforts are made at the enterprise level to take full advantage of ETEC operations and domestic policies following a proper awareness as to the need to allocate resources to technological learning become therefore self-evident.

One of the most critical instances of those consequences is the extremely low yields often derived from training programmes implemented in the context of ETEC operations. This largely follows from lack of incentives to make full use of and give full compensation to the skills and knowledge derived. There are many cases where formal training is supposed to be followed by on-the-job training. This, however, is often precluded by lack of continuity in the management of the overall learning process, which involves a fine tuning of the allocation of scarce manpower resources over time.

There is also the issue of suppliers' learning benefits, through ETEC operations, recipients may be made to share in sup-

pliers' learning costs associated either to past or to current - learning processes -or both.

Incremental experience acquired in existing lines as a result of the ETEC operation is sometimes substantial. Additional skills are often acquired by initially engaging in a lot of - indirect transfers (+) and hiring independent experts in areas - that the suppliers have still not entered or mastered and then - assimilating them fully. Suppliers sometimes constraint themselves to just adapt what they know and sometimes go a bit beyond by -- pursuing a more experimental kind of approach. This way they --- widen the scope of their knowledge in the context and possibly - at the expense of the technology export operation. This sometimes is done in agreement with the recipient party (particularly when solutions have to be found quickly in the field) and sometimes - not.

In short, the most common shortcomings at the level of recipient enterprises are: (i) extremely low technological ab--- sorption capacity by the recipient (firms, country) minimizes the benefits actually drawn from the operations; (ii) often learning efforts at the level of the firm find little support and follow up at the Government level; (iii) training programmes render lit tle results when efforts are undertaken in an isolated way; (iv) recipients share in suppliers' learning costs without anything - in exchange.

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(+) C. Cooper and F. Sercovich, The Channels and Mechanisms for the Transfer of Technology from Developed to Developing countries, Geneva, 1971.

### Conclusion

There is within the developing world plenty of actual and potential sources of skills, experience and technical knowledge to be taken advantage mutually. However, the possibilities of utilizing this potential through ETEC have been so far under-exploited.--- Country and enterprise concentration are a strong pattern of current flows. The sectoral profiles of ETEC, though ample and diversified, consists more of activities which are redeployed among more advanced and less advanced developing countries than in the joint development of innovations which could upgrade their international position and competitiveness vis a vis industrialized economies. At the micro level, advantages in terms of appropriate technology and better deals are matched by shortcomings at the level of enterprises aptitudes and attitudes vis a vis an effective ETEC. In short, the present experience of ETEC gives rise to an ample scenario for governmental action and international cooperation in order to develop the ETEC potential in both quantitative and qualitative terms. Yet before discussing what could be the elements of a global strategy for the promotion of ETEC, let us review how developing countries governments have approached the issue and through which policies.



### CHAPTER III

#### PROMOTION OF ETEC: MAIN ANTECEDENTS

Enterprise to enterprise cooperation concerns at least two separate national environments and their respective policy frameworks. The flows of productive resources and goods between domestic economies involves the transfer of capital, technological assets and human resources, and gives rise to various payments. These operations are affected by the policies and rules of exporting and importing countries. But before actual flows could take place, there is a number of other crucial aspects of the two national environments which may influence the possibilities and the ways in which ETEC can operate. They have to do with the aptitude and attitude of firms of developing countries to cooperate with their counterparts in other developing countries as suppliers and recipients of productive resources or partners of collaborative arrangements. They involve problems of information, financial capacity and organization to operate in foreign locations and to search, screen, select and negotiate with potential developing country suppliers. They may affect their strategy, motivations and approach towards these dealings. On the other hand, the policies and instruments of source and recipient countries must match in order to make ETEC possible.

A look at the international scenario reveals that the only relevant initiatives to directly promote ETEC in a coordi--

nated manner have been taken at the regional level, in the context of integration and cooperation programs among groupings of developing countries.

Yet developing countries have also adopted policies -- and measures which influence indirectly the implementation of -- ETEC activities. Such actions are carried out at the national -- level through unilateral instruments. Let us have a brief discus- sion of these actions before dealing with regional instruments.-

1. Unilateral efforts: national promotional policies

At the national level, significant actions can be ob- served in the context of the export promotion policies of a num- ber of developing countries. These policies illustrated by the - cases of Brazil, Korea, Mexico, India and a few other advanced - developing countries, have been gradually incorporating elements of promotion of exports of technology and investments abroad.--- The incentives utilized with this purpose include tax and finan- cial advantages for the export of industrial projects and tech- nical services, market intelligence on foreign opportunities, fa- cilities for deployment of technicians to other countries, guaran- tees to cover risks of projects abroad, etcétera. Direct foreign investment abroad is still treated in a restrictive manner by most developing countries, which prohibit such operations or sub- mit them to strict authorizations and performance obligations, - such as the stimulation of exports. Yet a few countries have --- started to liberalize these transfers and in some cases (Korea, - India, Brazil) special fiscal and financial incentives are grant

ed. Although these policies in general don't discriminate as to the destination of the outflow of productive resources, in most cases they are implicitly referred to operations in other developing countries, where the main markets for the manufacturing --- technology of the semi-industrial economies are located.

The evaluation of this kind of policies in terms of -- ETEC is not simple. On the one hand, they have an important impact in terms of mobilizing -liberalizing and stimulating- the transfer of resources among developing countries. Some measures are of direct relevance to operations in developing countries, - such as the information on opportunities and markets provided by governmental agencies, the Export credit guarantees or performance bonds granted to technology exporters (Brazil, India, Korea) and the protection from investment risks (Korea).

Yet on the other hand, these incentives tend to suffer from some conditionality affecting the forms and ways of the export of resources and more specifically, the possibilities of -- utilizing them for ETEC operations. For example, some countries privilege the export of turnkey plants, a modality which by definition is not appropriate for assuring local participation in -- the host country. In general, investments abroad are conditioned to a positive trade balance of the project abroad, which may imply a low utilization of resources in the recipient economy. One interesting exception in this regard are the indian guidelines - on joint ventures abroad, which require that: a) machinery exported should be new; b) indian firms should have in principle a mi-

nority share holding, unless the foreign government and parties desire otherwise; c) indian participants must provide for training of nationals of the host country.

The analysis of the other side of the scenario -i.e., the policies for reception of ETEC projects coming from other developing countries- reveals a less promising picture. Most countries apply to such ventures the same rules applicable to trans-national corporations. When the system is open, there is a de fac-to bias, strengthened by post-colonial links and traditional ---sourcing habits, towards seeking sources in industrialized countries. Also tariff and tax incentives promoting the import of --large scale, capital intensive equipment tend to discourage the participation of developing countries suppliers. When the régimes are control-oriented, the effects are similar, because no special treatment is granted to developing countries' firms, which have less bargaining power, skills and time to cope with legal and administrative barriers set up to negotiate with big TNCs. This --general attitude finds a few exceptions in recent changes of policies granting preferential status to projects originated in --other developing countries, such as the Egyptian privilege to --arab capital, and the Indian treatment of "OPIC investors".

In conclusion, national policies of home and host developing countries are still far, despite some incipient trends, from providing the logistic infrastructure needed by ETEC. Few countries have adopted active, promotional policies, and in such cases, actions are still too limited, or conditioned to restrictive per--

formance requirements, and in general not coordinated with the policies of other countries.

More recently, a trend towards the negotiation of bi-lateral agreements among developing countries seem to open a new framework which merit attention. Countries such as Argentina, Brazil, Korea, India and others are promoting closer diplomatic and trade links in the Third World. This trend has already given rise to a number of cooperative agreements, including reciprocal technical assistance, avoidance of double taxation, protection and stimulation of reciprocal investments, and other fields of cooperation. Such bilateral arrangements may be an appropriate context for the adoption of coordinated policies and incentives regarding ETEC.

## 2. Multilateral efforts: Regional schemes

Regional integration and cooperation programs provided the first opportunity to set up mechanisms for the promotion of ETEC among developing countries. United Nations through the regional commissions for Latin America (ECLA), Africa (ECA) and Asia (ESCAP) was one of the main sources of ideas and proposals for such purpose. Joint ventures were conceived as an instrument to promote objectives essential to the different programmes, such as the growth of trade, the efficient allocation of industries and the equitable distribution of industries among member countries. The widened economic space provided by trade liberalization programs should stimulate the creation of joint ventures which would take advantage of scale economies and new investment opportunities. Let us review the main mechanisms or initiative -

launched in the various regions.

## 2.1. Latin America (+)

### a) Latin American Integration System (LAIA)

Joining the economies of 11 countries of different sizes and levels of development, the Latin American Free Trade Association (LAFTA, 1960 transformed into LAIA since 1980) is the widest but weaker integration scheme in Latin America. LAFTA was limited to commercial integration only, based on a trade liberalization mechanism through product-by-product negotiations. The flow of production factors was not liberalized and no regional planning instruments were adopted. Yet, a system of complementarity agreements adopted as a mechanism for promoting the integration of industrial activities allowed the introduction of elements for the promotion of FTEC, such as the coordination of governmental incentives, the liberalization of capital movements and the joint allocation of industries. But the LAFTA Secretariat was never given real authority to promote such arrangements, which were entirely left to the initiative of representatives of the private sector. As the most active protagonists of the private sector in the LAFTA negotiations were TNCs subsidiaries -LAFTA didn't discriminate against foreign capital nor provided any measure for encouraging the participation of domestic firms- the complementary agreements system was mainly used as an instrument to formalize private distributions of markets and avoid competition among TNCs in the same sector. The LAFTA programme ex---

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(+) For more details on Latin America see Eduardo White, *Empresas multinacionales latinoamericanas*, Fondo de Cultura Económica, México 1973, and Eduardo White, *Joint Ventures -- among firms in Latin America*, UNCTC, 1983.

pired in 1980 without achieving its objectives and was replaced by the present LAIA system which has definitely abandoned any chance of regional planning. LAIA envisages the negotiation of sectoral "partial" agreements, by couples or groups of member countries, which are free to include measures to promote joint ventures, but no policies, incentives nor institutional infrastructure are provided by the system.

b) Central American Common Market (CACM)

The five members countries of the CACM -a much poorer but more homogeneous grouping than ALADI- adopted in 1958 an ambitious integration system, including industrial -- programming policies and measures to promote the creation of new enterprises of regional reach. An Industrial Integration System was conceived for encouraging the establishment of industries majority-owned by Central-American Investors, with - advantages consisting of the immediate access to the entire - regional market and tariff protection for a number of years.- The Central American majority standard was finally left to -- case by case decisions of the regional organ. In practice, of the three enterprises that were granted the status of integration industries, all were sooner or later controlled by TNCs. TNCs also dominated another mechanism -the special system for the promotion of Industrial Activities- which granted tariff and non tariff protection. No measure was adopted to limit foreign participation in the integration program -several attempts were stopped by external pressures- and in the late seventies the strained relations among member countries seriously affected the whole integration system.

c) Andean Group

Dissatisfied with the laissez faire policies of LAFTA, six of its medium-sized and smaller member countries joined in 1968 in the Andean Group. The new system emphasized the programmed development of new activities, the equitable distribution of costs and benefits of integration and the need to control foreign factors of production. A common Regime for the regulation of foreign capital and technology flows (Decision 24) was adopted in order to avoid the de-nationalization of the integration mechanisms, as in the LAFTA and CACM cases. A system of Sectoral Programmes for Industrial Development -- (SPID) was introduced for the negotiation of the geographical allocation of industries: so far three SPID projects, in the metalworking, petrochemicals and automotive sectors have been approved. The SPID were supposed to be an attractive field -- for the formation of Andean Multinational Enterprises (AME), under certain guidelines and incentives regulated by a special Legal Statute (Decision 46).

AMEs were defined as new enterprises created by national investors of two or more member countries; foreign participation was limited to 40 per cent of the capital: the share of each member country could not be lower than 15 per cent of the total subregional capital, and only SPID projects, infrastructural projects and projects included in Industrial Rationalization and agricultural programmes were entitled to the AME status, to be granted by the Andean Group Board after approval of each member country. Uniform company law requirements were introduced, and national treatment was provided as the main incentive, as well as exemption from the restric---



tions applicable to foreign firms.

Thus the treatment of Andean joint ventures was inserted in the framework of a few basic instruments and policies of the Andean Group; their scope was limited to the sectoral programs to be negotiated; their majority ownership and control were restricted to domestic investors as defined by the Common Régime on foreign investors; and their main advantages were, on the one hand, the access to the trade liberalization program and on the other, the non-application of the discriminations and controls on foreign enterprises adopted by the Common Régime, or in other words, the enjoyment of the national treatment status. An optimistic assumption about the success of these policies and instruments led the authors of Decision 46 to establish a set of requirements for potential investors in Andean multinationals, such as the distribution of shares among member countries, and the need for a number of legal and administrative authorizations by the governments and the Andean Commission.

The efficacy of Decision 46 was then closely linked to that of the Andean Group as a whole. And because the various policies and programs which provided the framework for Decision 46 were not implemented as expected -particularly the industrial programs- Decision 46 could never work. Besides, since 1976 intra-andean investments started to enjoy national treatment so that this advantage previously exclusively reserved for investments through Decision 46 was neutralized as an incentive to utilize the Statute.

By the early 80s, the need to revive the Andean integration process changed the view of Andean multinationals, from -

the initial idea of a complement or a natural consequence of the overall integration process, to a new perception of these companies as mechanisms to mobilize and stimulate the process. In --- March 1982, Decision 169 was adopted, providing a new and more - flexible framework, less dependent on the fate of other Andean - policies. The new Statute, although raising the requirements of - subregional majority from 60% to 80% of the capital, allows the creation of Andean Multinationals in any economic sector; flexi- bilizes the proceedings of incorporation -now assigned to the relevant host country's government-; increases the rights to re invest and transfer profits abroad; allows the application of -- the statute to existing joint ventures, and adopts new rules to avoid double taxation. The broader scope and more flexible treat- ment of Andean Multinationals is expected to attract a good share of the existing potential for ETEC among the member countries.--

In fact, intra-Andean direct investments have been --- growing fastly during recent periods (+). These spontaneous, un- planned, market oriented flows do not necessarily fit into the - sectoral priorities and ownership models of the original concep- tion of ETEC in the Andean Group, but may be a more appropriate basis for developing a bottom-up approach for ETEC in this sub-- regional grouping.

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(+) See White, (UNCTC), op.cit. p.32.

d) Caribbean Community

The transformation in 1972 of the Caribbean Free Trade Association (CARIFTA) into CARICOM allowed its 12 member countries to introduce an ambitious integration program which included a harmonized system of fiscal incentives, co-operative monetary arrangements and plans for negotiating industrial programmes, a common policy with regard to foreign investments and a regional framework for the promotion of joint enterprises. The Member States had already created joint ventures for the administration of Common Services after the demise of the West Indies Federation, such as a Shipping Corporation. In 1974 an airline service was established by a group of CARICOM government, and a few years later the Caribbean Food Corporation and the Caribbean Investment Corporation were formed. By 1976, a Caricom Enterprise Régime was adopted along the broad lines of the Andean Group model. The Caricom Statute requires the majority participation of public or private national investors of two or more member countries.

The CARICOM enterprises are permitted to operate in the areas subject to industrial programming, in the joint development of natural resources, in the marketing of agricultural products, in the tourism sector, or any other area agreed by the CARICOM Council. The establishment and performance of these enterprises is subject to control by a special supervisory organ, and their internal organization is regulated by the laws of the state of incorporation. The CARICOM enterprises enjoy legal personality in

all the member States and are entitled to operate foreign accounts, to repatriate freely profits and capital, and to receive most-favoured-enterprise treatment from the member States, including industrial licencing, credit, government procurement and fiscal incentives.

The application of the Regime has not taken place so far. It confronts a variety of problems, most of them related to the slow pace of the integration process in CARICOM: the main areas of activity of the CARICOM enterprises (industrial programming, joint development of natural resources) are those in which less progress has been achieved; besides, during the past years the international economic crisis has caused severe difficulties in the national economies and given rise to protectionist measures.

e) The Latin American Economic System (SELA)

The creation of SELA by all Latin American countries in 1975 was justified by the slow pace of the various integration programmes, and the need for a mechanism to co-ordinate Latin American interests vis-a-vis the rest of the world. Its programme is oriented towards the development of specific projects of co-operation among the member countries, to be detected and negotiated by "Action Committees" made up of representatives of the interested member States.

A salient goal is to increase the negotiating capacity of the countries in issues of trade, finance, technology and investment.

In this light, the creation and promotion of Latin American multinational enterprises in order to "improve the allocation of -- the human, natural, technical and financial resources of the region" was privileged in the list of objectives (+).

SELA's definition of multinational enterprises is vague and flexible with regard to their organizational aspects, but the role of governments in the creation of these enterprises was deemed essential:

SELA multinationals, "can be created with -- the participation of States, State entities, private or mixed capital whose national origin is guaranteed by the States and whose activities are subject to the jurisdiction and control of the -- States"(++).

In fact, the initiatives for and supervision of the multinational enterprises depend on the governments. The participation of private capital is accepted but so far the intergovernmental --- structure and organization of SELA and its "Action Committees" make the possible role of the private sector very limited.

SELA enterprises do not depend on other regional instruments, -- such as sectoral programmes, complementation agreements, etc; -- they do not have to conform to any juridical framework in particular; they can bring together countries belonging to different subregions; they have no limitations as regards the sector of activity, which may be determined freely by the member countries -

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(+) Agreement for the Constitution of SELA, art. 5.

(++) Ibid.

concerned, and, in general, they are not required to be profitable.

Yet, SELA's efforts were oriented from the outset towards joint projects of economic and social significance. Its view of Latin American multinationals was stimulated by an inter-governmental joint venture already promoted at the time of the inception of SELA: the Naviera Multinacional del Caribe, or Namucar, a shipping line in which Mexico, Venezuela, Cuba, Jamaica, Trinidad, Costa Rica and Nicaragua participate and whose ambitious objective was to build up an independent transport system in the Caribbean Basin for stimulating trade among the member countries.

SELA Action Committees were created for a variety of sectors: -- sea products, housing, tourism, food complements, popular craftsmanship, fertilizers. The Fertilizers Committee, made up of nine member countries, promoted the establishment of the first and so far only Latin American Multinational enterprise in the SELA system: the trading company Multifert, whose statutes were officially approved in 1979.

On the other hand, SELA provided political and technical support to Comumbana, a Latin American multinational trading company --- created in 1977 within the framework of the Union of Banana Exporting Countries (UPEB) in order to overcome the traditional -- marketing dependency on the United States transnationals.

## 2.2. Asia

### a) Regional Cooperation for Development (RCD)

This organization was established in 1964 by Iran, Pakistan and Turkey as a multisectoral program of reciprocal cooperation. It included a mechanism for the creation and promotion of "Joint Purpose Enterprises", defined by the regional scope of their activities (+). Although there were no rules as to <sup>the</sup> number of countries participating in these enterprises, they had to involve the economies of at least two countries, through trade or investment links. Projects were submitted by governments or private investors and had to be approved by a Special Committee of RCD. The main advantages enjoyed by approved projects consisted of a regional market share granted by the three countries to the production of the enterprise, which had to be sold at international prices and qualities. The non-host countries had in compensation priority in the supply of raw materials and equipment. By the early 70's, about 15 Joint Purpose Enterprises were at the implementation stage, and a larger number of projects were identified. Soon afterwards the whole system of cooperation lost --- strength and the scheme gradually became ineffective.

### b) ASEAN

The Association of Southeast Asian Nations was established in 1967 by Indonesia, Malaysia, The Philippines, Singapore and Thailand. This system of regional cooperation is based on a

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(+) For details see H. Brewster, Industrial Integration Schemes, UNCTAD, TD/B/345, July 1971.

trade liberalization scheme through Preferential Trading Arrangements (PTA) and various mechanisms of industrial cooperation.--- The latter provide the basis for several forms of enterprise to enterprise cooperation (+).

i) The ASEAN Industrial projects (AIP)

The AIP schemes was launched to promote large-scale -- ASEAN industrial plants to satisfy regional needs of essential - commodities. It works on the basis of a negotiation of package deals containing several projects to be distributed among the -- member countries and jointly financed by them. The first package was approved in 1976. It included five industrial projects: urea for Indonesia and Malaysia, diesel engines for Singapore, super-- phosphate for the Philippines, and soda-ash for Thailand. The -- host countries were to take 60 per cent of the equity and the re-- maining would be equally shared among the other member countries. The initiative for these projects was reserved to governments, - as well as their majority-ownership. Yet private investors in -- the host country could take up equity participation up to 40 per cent.

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(+) For a detailed analysis of the ASEAN Industrial Cooperation mechanisms see the following UNIDO documents: UNIDO/IS.282 "ASEAN Industrial Complementation"; UNIDO/IS.329 "The role of the Private Sector in Industrial and Technological Co-operation in ASEAN"; UNIDO/IS.281 "The Development of the ASEAN Industrial Projects (AIPs)"; UNIDO/IS.310 "ASEAN Industrial Joint Ventures (AIJVs) in the Private Sector"; UNIDO/IS.346 "Co-operation in Industrial Financing in ASEAN"; UNIDO/IS.291 "ASEAN Finance Corporation: Prospects and Challenge"; UNIDO/IS.311 "Regional Industrial Co-operation - the approaches pursued by ASEAN".



So far only two projects have been started, while other two were abandoned and the remaining is still at the feasibility study stage. In 1977, a second package was allocated containing seven projects regarding rubber tyres machine tools, TV tubes, - potash, fisheries, newsprint and electrolytic tin-plating.

The slow progress of the AIP scheme has been explained by the political difficulties and trade offs between efficiency and social equity involved in region-wide projects. Apart from - the usual competition over the location of the plants, the need to grant preferential treatment and protection to projects with excess capacity and/or high production costs, located in other - member countries, raised numerous problems in the process of negotiation. Thus the attention was diverted towards another mechanism of cooperation, the ASEAN Industrial Complementation scheme (AIC).

ii) ASEAN Industrial Complementation (AIC)

The AIC scheme seeks to promote complementarity among existing industries, particularly those of smaller or medium -- size and to encourage the participation of the private sector. A basic agreement setting up the following guidelines for AIC was signed in 1980:

- 1) At least four of the five member countries must participate in an AIC package, but joint ventures are not required.
- 2) AIC packages receive trade "exclusivity privileges" for two years for existing products and three years for new products.

3) The initiative for AIC packages depends on the private sector, through the Asean Chambers of Commerce and Industry, while approval is assigned to the --- Asean organisms.

Two basic types of industrial complementation were envisaged. One is vertical specialization through the establishment in each country of an integrated plant selling part of the output to the other countries. The other is horizontal specialization - by division of labour among member countries producing and ex--- changing parts or components for the same product. Combinations of vertical and horizontal complementation were also taken into account.

Proposals for AIC packages are first submitted by national industry associations to Regional Industry Clubs (sectoral associations of national chambers of each industry) accredited by Asean Chambers. These receive the proposals and after an evaluation by a working group on Industrial Complementation the project is transmitted to the relevant ASEAN Committee on Industry, Minerals and Energy for approval.

Trade preferences are granted by another ASEAN Committee. Final decision is adopted by periodic meetings of Economic - Ministers. This procedure assures sufficient consultation and - agreement by all relevant interestal parties, but in practice is very time consuming. In fact, only two out of about 30 AIC pro-- posals considered up to early 1983, have been approved by the -- ASEAN Ministers. Both concern automotive industry components ---

which require the enlarged regional market to be economical.

iii) ASEAN Industrial Joint ventures (AIJV)

The search for still more dynamic forms of industrial complementation has given rise to a new scheme which is still at the phase of formalization. It is concerned with the formation of "ASEAN industrial joint ventures", whose guiding principles were approved by the relevant Asean Committee in 1981. These joint ventures have to be formed by investors of at least two member countries; foreign participation is admitted up to 49% of the capital; products of AIJV enjoy up to 50 per cent of ASEAN Trade Preferences, which is not granted to similar products of non-participating countries; participating countries should not encourage expansion of production capacity in the markets of approved AIJV, whose products must be of international quality and prices.

Thus the experience of ASEAN shows a clear tendency to flexibilize the forms and mechanisms of industrial complementation. The earlier emphasis on large scale, state sponsored package deals was shifted towards a more pragmatic scheme based on the private sector impulse and the identification of region-wide markets, and more recently, towards a very loose mechanism which has virtually eliminated the principle of regional balance and equal participation, as well as the careful scrutiny of the Asean machinery. At the end, market oriented ETEC has prevailed over planned industrial complementation, and the regional organization limits itself to provide incentives to projects whose only condi--

tion is to be joint ventures and not bringing unequitable distribution of benefits and costs among the member countries.

### 2.3. Africa

Several of the regional integration groupings among -- african countries have privileged the objective of setting up -- multinational companies and integration industries capable of -- operating at regional scale as a way to facilitate the industrial development of the member countries. Yet not all these initia--- tives envisaged the creation of multinational companies through the cooperation of existing enterprises and the formation of -- joint ventures. Two of the statutes adopted, those of the East -- African Community and the Mano River Union, regarded "regional in dustries", but not necessarily owned by companies of more than -- one country. The UDEAC Code and the ECOWAS and CEAO draft Regimes are instead mechanisms to promote inter-enterprises cooperation. Let us briefly review the main futures of these schemes.

#### a) East African Community

The East African Common Market was created in 1967 by Kenya, Uganda and Tanzania. It included a scheme for the esta--- blishment of "East African Industries", to be identified on the basis of two criteria: a) those whose feasibility required the - access to the markets of the three countries, and b) those which needed a market larger than one of the member countries. The sys tem didn't contained rules as to the origin of the capital nor - the ownership structure of the industries. Six of these projects were identified, but they were not implemented. Final disagreement on the distribution of the industries among the member countries and a serious deterioration of the trade relationships led to -- the collapse of the integration system and its substitution in -

1976 by the East African Community, which had no provisions regarding industrial integration (+).

b) Mano River Union Industries

The experience of this Custom Union established by Liberia and Sierra Leone in 1973 includes a Protocol on principles and policies for the promotion of Union Industries, signed in 1976. Such industries are approved by the Union's Commission and enjoy tariff protection, unrestricted transfer of funds, drawback of import duties, unrestricted movement of factors of production and other fiscal incentives. Incentives are granted through investment contracts, for a maximum period of six years. There is no requirement regarding the form, ownership structure and origin of the capital of the Union Industries. There is no information about the implementation of concrete projects under this scheme.

c) Custom and Economic Union of Central Africa (UDEAC)

The four member countries of UDEAC adopted in 1975 a Code on Multinational Companies with the following characteristics: a) the capital of the companies should be shared by public or private investors of at least two member countries; foreign participation is admitted up to 66% of the equity, but after a 10 years period regional investors should control the majority; b) the objective of the Company should be of regional interest;

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(+) For further details on the East African Community see H. Brewster, Industrial Integration System, UNCTAD TD/B/245, 1971.

#### 2.4. Arab countries of Western Asia

The first efforts to create joint ventures among arab countries date back to the late forties, when the League of Arab States approved the establishment of a few multi-country projects in the field of natural resources. By the mid-sixties, the Arab Economic Unity Agreement called for the promotion of joint ventures, and a number of important projects were implemented, but it was not until the next decade, after the establishment of the Organization of Arab Petroleum Exporting Countries (OAPEC) and the spectacular increase in oil revenues, that the trend towards the development of joint undertakings was strongly intensified. A survey concluded in 1983 detected 850 cases of joint Arab and Arab-international ventures, with a total capital of about US\$ 36 billion (+). Nearly two thirds of such projects belong to non-financial activities: the share of arab-arab joint ventures is not clearly determined, save for financial projects, which account for about 40% in terms of number of projects and slightly more than 50% in terms of capital.

Several intergovernmental organizations have adopted explicit policies and actions for the development of arab joint ventures. Most notable among them are OAPEC, the Council of Arab Economic Unity and the Arab Economic Council of the Arab League.

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(+) See Samih Masoud, Joint Arab financial ventures; realities and projects, paper presented to the Expert Group Meeting on the role and factors conducive to the improvement of the performance of public enterprises joint ventures among developing countries, Ljubljana, October 1983.

These institutions have played a more active role in the promotion of joint ventures than regional integration Secretariats in Latin America, Africa and Asia. In part the difference is explained by the different approach followed with regard to economic cooperation among member states. While in the other regions of the Third World the basic strategy was based (particularly in Latin America and Africa) on a regional integration plan with macro-economic measures of trade liberalization, policy harmonization and sectoral complementation, the Arabs emphasized the search of selected operational activities leading to immediate projects.-- The promotion of arab joint ventures offered one of the most promising fields for a pragmatic approach of this kind.

The following are the main instruments and actions --- adopted by Arab countries with the objective of promoting joint ventures.

a) Organization of Arab Petroleum Exporting Countries  
(OAPEC).

OAPEC was established in 1968 as a mechanism for promoting cooperation in oil-related activities, including the development of joint projects among member countries. Specialized departments within the Organization take care of exploring opportunities, conducting feasibility studies and proposing projects to the Ministerial Council, after whose approval measures are -- adopted to implement the project, such as drawing up the bylaws and statutes of the company. Yet governments are free to decide

whether to participate in the proposed projects, to do it directly or through their oil companies, and the extent of their participation. Once the operations have started, a coordinating committee including representatives of OAPEC and the joint ventures meets twice a year to follow up the performance of the company(+). Five projects have been implemented under the OAPEC's sponsorship: the Arab Maritime Petroleum Transport Company, the Arab Shipbuilding and Repair Yard Company, the Arab Petroleum Investment Corporation, the Arab Petroleum Services Company, and the Arab Company for Engineering and Consultancy (++)). In all these cases the joint ventures were established by a Treaty among the member governments, which includes the statutes of the companies and adopts a number of privileges and exemptions from taxes, expropriation, etcetera. Any member state may relinquish up to 49% per cent of its shares in favor of its nationals, but individuals cannot own more than 10% of such shares. No foreign participation is allowed and there is a preference for recruiting nationals of the member countries. Yet in most cases the management of the joint ventures was entrusted to international firms. Training programs for Arab nationals were however developed.

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(+) See Masoud, *ibid*, p. 20.

(++) See M.V. Trimarco, *Case studies on Arab Joint Ventures*, in - *Expert Group Meeting*, *op.cit.*



b) Council of Arab Economic Unity

The same as OAPEC, CAEU efforts are concentrated on -- the exploration of opportunities and the preparation of feasibility studies. Its scope is not limited to the oil sector and, in addition, it also develops guidelines for the establishment and operation of joint ventures.

So far the Council has sponsored four companies in the fields of mining, livestock development, pharmaceuticals and industrial development. They were established in the second half -- of the seventies under the form of holding companies fully independent from CAEU, who keeps close contact with them through -- periodic meetings. As holding companies, they participate in the capital of enterprises located in the various member countries, with special emphasis on joint ventures and projects with markets in other arab countries.

The four holdings were created as public multinational corporations, through international agreements among the member governments. Yet the companies didn't use treaties to establish subsidiaries or the companies sponsored by them, which admit the participation of private shareholders. As in the case of CAPEC -- joint ventures, those of CAEU have relied on an extensive use of foreign consultants.

c) Other mechanisms

1) Inter-Arab Investment Guarantee Corporation (IAIGC)

\*IAIGC is regarded as the first international corpo-

ration to guarantee the rights of both the exporters and importers of funds, since its membership includes capital exporting and importing countries on an equal footing" (+). Participated by the 22 members of the Arab League and operating since 1975, IAGC provides guarantees to intra-arab investments ensuring operations - against non-commercial risks. IAGC also provides information and advice on investment conditions, markets and potential partners in other arab countries. Up to mid-1981 no claim was submitted - under the insurance mechanism. The capitalization of IAGC was -- considered inadequate despite the still limited demand of arab - investors (++)).

ii) Secretariat of the League of Arab States

On February 1983, the General Secretariat of the -- Arab League adopted a Resolution approving a plan for scheduling integrated joint Arab ventures within a comprehensive framework (+++).

iii) Arab Fund for Economic and Social Development (AFESD)

Under a program of cooperation with UNDP, AFESD has undertaken a number of pre-investment, pre-feasibility and feasibility studies for regional joint ventures which have served for

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(+) See Masoud, op.cit., p. 35.

(++) See Jeffrey B. Nugent, Toward a feasible path to economic cooperation and integration in Western Asia (Mimeo), 1981, p. 39.

(+++.) See Masoud, op.cit., p. 21.

the implementation of several projects (+).

iv) Organization of the Islamic Conference (OIC)

A Ministerial Consultation on Industrial Cooperation among Member States decided to establish a Task Force with mandate to make recommendations on joint ventures, under the aegis of the General Secretariat of OIC, and comprising several regional centers in the fields of finance and technology and the Islamic Chamber of Commerce.

v) Arab Investment Company and other financial institutions

A great variety of joint financial organizations began to emerge in the early 1960s with government participation, in order to make use of the oil revenues inside and outside the Arab countries. The trend was significantly expanded in the second half of the 1970s. The institutions comprise Commercial Banks, Merchant Banks, Development Banks, Industrial Development Banks, Islamic Banks (where the deposits are used on the basis of sharing profits or losses, not on the basis of interests), Financing Enterprises and Investment Enterprises. Some of these entities have oriented their role to the promotion of industrial joint ventures.

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(+) See Masond, op.cit., p. 21.

Among these institutions the most directly engaged in the promotion of joint ventures are the Investment Enterprises, such as the Arab Investment Company (AIC) created in 1974 by seven Arab States to operate as a catalyst by providing equity capital, ideas, information and evaluation services for binational or multinational projects; the Arab Industrial Investments Company, specialized in engineering ventures; the Arab Petroleum Investment Corporation and the Arab Company for the Development of Animal Resources.

The larger number of arab joint ventures promoted by inter-governmental mechanisms, in comparison to the less significant results of other regions of developing countries, is to a great extent explained by the financial resources available in the Arab region, which have facilitated the channeling of funds for the development of productive projects. The low level of industrial development at national level in most arab countries facilitated the negotiation and implementation of a number of projects on a cooperative basis. Yet several drawbacks and obstacles have been observed in the arab experience including: a) the lack of coordination among an excessively large number of institutions and mechanisms that propose and promote joint ventures; b) the limited scope of preferential treatment for goods and services provided by joint ventures; c) the weak technological capacity of arab organizations, which leads to an excessive dependence on foreign suppliers or serious deficiencies in the feasibility studies.

### 3. Conclusions

Despite declared intentions, joint declarations and apparent willingness to encourage enterprise to enterprise cooperation, - the balance of efforts and achievements is not encouraging. Initiatives at national level are still very few, limited to a handful of the more advanced developing countries and only partially or indirectly referred to ETEC. Some of these countries have introduced incentives to stimulate the maximization of exports of productive resources, but no reciprocity is observed with regard to the inflow of capital and technology from other developing -- countries. These flows are in general treated in the same pooling as investments and technologies offered by large transnational - corporations. Policies of home and host countries are not coordinated, and in many cases may lead to serious tradeoffs due to -- conflicting performance requirements.

Concerted actions have been mostly concentrated on regional - cooperation programs, which so far have not served to stimulate ETEC, with the partial exception of the Arab region.

The failure or sluggish progress of ETEC within regional co-- operation and integration schemes can be explained by a set of - factors and reasons.

a) Dependence on the overall performance of the regional programme. With the exception of the Arab countries, most schemes - have made ETEC an outcome rather than a factor of industrial complementation. As the industrial complementation programmes began to suffer problem and the integration schemes started to loose -

strength, so the statutes or régimes for promoting ETEC or other kinds of joint ventures lost ground for their implementation.

b) Excessive emphasis on planned and large scale projects. The theory of integration led to a national approach of ETEC which -- was envisaged as a way to carry out projects of regional dimen-- sion based on scale economies and giving rise to an equitable -- distribution of costs and benefits among member countries at the level of specific projects or packages of projects. This approach gave rise to disputes among countries regarding the allocation of projects and the level of protection to be granted. The techni-- que of equity sharing and the attempt of negotiating balanced -- package deals at the sectoral or multisectoral level were not -- sufficient to compensate for nationalistic pressures and different cost-benefit evaluations.

c) Lack of domestic capitalists. In most developing countries the industrial activities that could have a more significant role in regional industrial complementation schemes are dominated by foreign transnationals or by state-owned corporations. This is -- particularly evident in the case of capital intensive sectors.- Private domestic companies are in general of small and medium-size, at least in terms of the organization of region-wide projects.-- They lack affiliates in other member countries with which to co- ordinate activities. In most regions foreign enterprises have -- taken over the integration opportunities, leading to intra-firm market arrangements rather than to ETEC. With the exception of -- the Andean Group, foreign investments are not controlled by a --

common régime.

d) Excessive emphasis on multilateral projects. ETEC has been defined by most regional schemes as a "multinational enterprise" reflecting at the micro-level the collective interest of all the member countries. This approach has limited numerous opportunities for organizing ETEC at the much more flexible bilateral --- level.

e) Inadequate requirements and incentives. In most cases regional-sponsored joint ventures were subject to cumbersome legal and administrative procedures, ranging from international treaties to overlapping interventions of national and regional authorities. There was in various cases an excessively legalistic emphasis on company law procedures (influenced by the EEC experience) and traditional industrial promotional measures, such as --- trade and fiscal advantages.

Recent trends in several groupings of developing countries suggest that a more flexible, bottom-up strategy of promoting industrial complementation through genuine ETEC is being --- tried. The main elements of this new approach, visible in the --- Asean and Andean Group recent steps, are: a) wider sectoral spectrum; b) larger role of private sector initiatives; c) less emphasis on region-wide projects and multilateral ventures; d) less insistence on equity-sharing formulae; e) greater emphasis on --- the identification and promotion of viable, economically efficient ventures; f) closer collaboration of regional organisms with industry associations and clubs of the potential ETEC actors.

CHAPTER IV

LOOKING AHEAD: Action-oriented ideas to promote ETEC

The promotion of ETEC implies conditions that go far beyond the adoption of a set of specific instruments and mechanisms. In the past, certain governments, regional groupings and international organizations enacted ad-hoc measures or adopted recommendations assuming that by their very virtue ETEC would emerge and flourish. For example, statutes for regional multinational enterprises were adopted assuming the pre-existence and availability of local enterprises waiting for such mechanisms in order to quickly respond to the incentives. But the actors of the instruments were not available or not willing to react and most efforts failed. In fact, past history shows that ETEC is to a great extent an offspring of the overall phenomenon of development of the productive forces in the national economies, and their reciprocal relations. There is no doubt that the still incipient ETEC experience wouldn't have existed without the long process of technological accumulation, the growth and diversification of industrial activities, the development of a domestic entrepreneurial class, and the increased commercial exchange among developing countries. In the future ETEC will continue depending on the situation and trends of these factors and forces, and the existence of a framework of national policies conducive to their development. It is on this basis that specific incentives and instruments can be adequately tailored and be effective.



tively applied.

At the same time a minimum degree of congruence among national policies is required. Although each country has its own policy definitions stemming from their specific national conditions, ETEC is implicitly or explicitly founded on a natural articulation among countries policies, concerning strategic affinities and areas of common interest, which preexist to specific -- ETEC instruments and could not be replaced by them.

In fact, the analysis in the preceding chapter under--lies, on the one hand, the fact that the potential for ETEC among developing countries is there to be realised, irrespective of ~~what~~ what the governments do; but, on the other hand, that not enough has yet been done in order (i) to fully exploit that potential, and (ii) to prevent the least desirable consequences stemming -- from its modes of realisation.

ETEC can and should be enhanced, deepened and improved both in quantity and quality. On the one hand, the number of countries sec--tors and enterprises involved in the ETEC process should be in--creased. On the other, the efficiency, equity and developmental effects of ETEC must be improved.

So far most proposals have tended to emphasize - either the objective to increase the flows, regardless of their effects, performance and implications (or assuming that ETEC has a positive impact inherently); or to regulate their quality according to certain standards, independently from the capacity of ---

real actors and institutions to fulfill such requisites.

What is actually needed is a global strategy for encouraging ETEC based on a common understanding by Third World countries of what ETEC is and should tend to be, and articulating both qualitative and quantitative elements at the same time.

Because ETEC already exists (despite its biases and shortcomings) the strategy should not be constructed on a vacuum.

We know already that market forces, although clearly insufficient, play an important role in the ETEC process. The international community is at the present saturated of ideas for new mechanisms and institutions of improbable efficacy. Countries are facing increasing financial and foreign exchange problems which limit the resources available for government intervention and new international machinery. From this viewpoint ETEC is to some extent a channel for selffinancing ECDC and TCDC.

But the important point is to distinguish between what can be achieved largely on the basis of market factors and what depends on official planning and incentives. The decisions may vary according to different national policies and variable resource availabilities, but there is no doubt that ETEC doesn't require governmental patronage and subsidies in all its aspects and dimensions. For this reason, the areas of intervention should be carefully identified and selected under priority orders by and within the different levels of action -national, regional, international- which in turn should be coordinated among them--

selves, instead of giving rise to overlapping functions and waste of resources. In the present world conditions, it might be necessary to emphasize criteria of viability and economic efficiency in ETEC projects. (+)

The roles of governments and intergovernmental organizations convey a number of functions which should be clearly differentiated. They range from the adoption of macro-economic policies to specific interventions at the micro level. They can be grouped under four categories of actions: a) the supply of an adequate logistic infrastructure for ETEC, including incentives and mechanisms; b) the selection of ETEC projects, particularly in those areas which need bilateral or regional planning; c) the execution of ETEC projects, through direct participation of public enterprises or financial agencies; d) the adoption of guidelines to orient and evaluate ETEC flows and operations.

In the following pages the elements for a global strategy on ETEC are outlined. It is not the purpose nor the possibility of this report to elaborate in detail all the policies and instruments which are involved in the implementation of such strategy, and include a host of techniques and measures of the most varied nature. We have focussed on what we think are the main issues and targets of an ETEC strategy. Although none of them is sufficient, each one conveys a different set of actions. In -

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(+) For example, in view of the need to reduce the financial assistance accorded to exporters of technology, one important agency in Brazil is now giving priority to operations with significant profitability prospects and high risks.

order to devise concrete policies and monitor the progress --  
achieved, the following discussion may prove useful.

1. Maximization of flows of ETEC ventures.

There is universal consensus about the need and the rationale to increase the volume and value of ETEC flows. Despite the growing trend in the last decade, intra-developing country investment and technology links are still a small fraction of the world total and also of the flows of developing countries with the industrialized economies. The mere increase of the number, volume and value of ETEC is not sufficient to achieve the developmental objectives of ECDC, but it is a necessary condition. Improving by doing is the only way to pursue such objectives. It is obvious, on the other hand, that in spite of all the meetings and declarations, the action and measures effectively taken in order to encourage ETEC are far less in number and in quality than those adopted by industrialized countries to encourage and support the participation of their own enterprises in international investment and technology flows, specially those addressed to developing countries' markets.

The issue of maximizing ETEC flows has been dealt with directly and indirectly in several studies and reports and the main areas of actions have been already identified, so that there is no need to insist on this point at the level of the present discussion (+).

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(+) See UNIDO, International Industrial Enterprises Cooperation, Volume 2 (UNIDO/100 325), and UNIDO, International Flows of Technology, Volume 3 (UNIDO/100 326).

The basic components can be viewed in the following -- terms:

a) Reduction of barriers to ETEC flows

Home or exporting developing countries still maintain a narrow approach regarding the transfer of productive resources abroad. Although a few developing countries have started to ---- authorize and in some cases to stimulate the transfer of resources via foreign investments and technology exports, the general policy is in general restrictive. On the other hand, recipient developing countries have not adapted their policies and mechanisms - of control of foreign investments and technology transfer to the treatment of ETEC with other developing countries. The controls at national level of both exporting and importing countries should be adjusted in order to create a legal and administrative margin of preference for ETEC flows. Projects directed to or coming --- from other developing countries should be facilitated, putting - ETEC under a different light than the one applied for dealings - with TNCs. UNIDO may follow up and monitor the evolution of government policies and regulations at this respect, and study alternative approaches to improve the existing situation.

b) Development of a logistic infrastructure for ETEC.

The development of ETEC should be based on a favourable atmosphere and a platform of supporting services capable of supplementing the resources of potential actors and to stimulate -- their decisions.

The supply of information services may be carried out

at the national, regional and international levels. Many developing countries have been building up their own technology information Centers and there are already some antecedents of networks of information at the regional level, such as the Andean System of technology information. UNIDO has a leading role in the promotion of such services at the international level through INTIB - and TIES.

In terms of ETEC, however, information inputs required are far beyond the scope of traditional technology networks. They cover not only data about offers and demands of cooperation, project profiles and directories of sources of information, but --- also the identification of suitable forms of financing, negotiation techniques and organizational mechanisms. Useful information must be tailored to each case and supplied fastly.

There are two channels for producing this kind of information which should be promoted. The first are the technical associations of national producers of the same sector in several -- countries. "Industry clubs" exist at regional level in Asia and Latin America in various sectors, and they have proved their capacity for information exchange and spontaneous generation of -- joint ventures. These organizations are a natural, "bottom up", -cathartic instrument joining directly the potential actors of ETEC. They should be supported and strengthened by regional and international organizations.

The other way is the organization of institutions or - mechanisms specialized in ETEC and capable of providing directly

to enterprises the packages of information, advice and eventually financial services needed for detecting, negotiating, organizing and implementing joint ventures and other forms of cooperation. UNIDO has advanced in this direction through the program of Investment Promotion Centers, and the efforts made for the establishment of links between Industrial Development Finance Institutions. Investment promotion services could be organized on a coordinated basis in developing countries, with the specific role of providing such assistance. Also national and regional International Development Finance mechanisms shaped along the experience of similar institutions existing in some industrialized countries should be organized.

c) Intergovernmental planning

The availability of a logistic infrastructure is essential for the promotion of market-oriented ETEC but insufficient to develop the possibilities existing in areas of high risk or having strong entry barriers. The following pages will comment upon mechanisms to encourage multidirectionality and sectoral deepening of ETEC, emphasizing the need to expand ETEC flows towards least developed countries and the development of new technologies. Beyond the supply of a network of incentives and services, governments should have an active, protagonistic participation in the organization of ETEC projects. Governmental intervention should be sought and facilitated in those fields where domestic private initiative is not present or adequate, such as in the exploitation of jointly owned natural resources or the de



velopment of new technologies, which can be carried out through public or mixed joint ventures. Bilateral agreements involving one or several sectors should provide the framework for a dynamic exchange of information and negotiation of projects of industrial complementation. Regional organizations should serve as a center for information and brokerage of joint venture possibilities arising out of the screening and detection of viable projects and its permanent matching with the initiatives of the productive sector.

2. To offset the spontaneous unidirectionality of cooperation -- flows and increase the participation of least developed countries.

This element of a global strategy means to improve the country distribution and participation in ETEC flows. So far, -- these are highly concentrated on operations between semi-industrial countries and less, but not the least developed countries. Both collaboration with the poorer countries and horizontal ETEC between countries at similar levels of development are much less significant. They should be stimulated in order to deepen the interlinkages within the Third World, enhance solidarity among --- countries, avoid the re-creation of "spheres of influence" and - segmentation trends among developing areas, and diminish the increasing dispersion observed between national levels of development.

The revalorization of the role of natural resources -- and the environment in the development process, along with the - emergence of new, integrative, technologies such as biotechnology and micro-electronics during the last few quinquenniums entail - the need for devising appropriate technological strategies from the South-South perspective.

Fortunately, natural resources are not at all as unevenly distributed across the world as wealth. Neither is, in many - cases, the experience related to the exploitation of such re---- sources. Thus, Cubans know a lot about sugar cane, Malaysians about palm, Bolivians about mining, and so on, to give just a few exam-

ples.

There has been for years a kind of international division of labour which has been shaped by North-South relations and that, therefore, has left little room or none at all to take proper advantage of headstarts in experience largely associated to resource endowments in developing countries. It is now time to give a proper perspective and an outlet to this question in the framework of ETEC

As a matter of fact, some steps have already been given in that direction. For example, with UNIDO support, the Cubans have set up the world largest paper-from-bagasse Technology Institute. If reciprocity and mutual interest are to be the guiding principles in the development of horizontal ETEC, the need to add acquired advantages to clear natural advantages enjoyed by the least favoured developing countries appears as inevitable. This way, unidirectional and assymetrical flows can be gradually offset by new pattern of division of labour across the developing world.

Certainly, low levels of overall technological accumulation in least developed countries may make extremely difficult to undertake this kind of strategy, particularly under conditions of acute shortage of all kinds of resources. The fact, however, that a number of complementary technologies and resources exist within the developing world permits to devise and articulate a number of collaborative schemes whereby country-level technical and manpower strengths can be combined in order to offset the -

shortcomings suffered by least developed countries in pursuing a strategy of mobilization of their technological potential. International agencies like UNIDO also may have an important role to play in planning and executing this kind of actions.

First, the logistic infrastructure for the promotion of ETEC should emphasize the establishment of networks and mechanisms with and among least developed countries.

Second, advanced developing countries should promote special bilateral links and multilateral arrangements with least developed countries. The latter schemes may involve groupings of advanced developing countries and of least developing countries.

Among the special mechanisms to be devised in order to re-orient the ETEC flows towards the poorer countries, the following could be applied:

- Preferential treatment in investment cooperation schemes, such as, inter alia, the arrangements between Korean and Brazilian firms to jointly participate in projects in Irak.
- Setting up of Regional Investment Insurance and Guarantee Mechanisms aimed at privileged ETEC with less advanced developing countries, along the lines suggested by previous UNIDO works (+).
- Encouraging the utilization of new forms of industrial cooperation among developing countries, suited for the articulation of special packages of ETEC on a large basis of countries' par

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(+) See UNIDO, International Industrial Cooperation, Vol.2, p.145.

icipation.

Let us explore the last idea.

3. Stimulating multipartite cooperation mechanism.

There is ample scope for intrasectoral enterprise-to-enterprise horizontal cooperation across frontiers. This has already been taking place in a spontaneous, accidental way. Although previous experience in this field is illustrative, it is far from involving a full use of existing opportunities.

In order to place the issue in the right perspective, it is convenient to redefine the concept of sector, since its usage in conventional industrial studies and statistics is inappropriate from the point of view of technical cooperation.

From such a standpoint, the concept of sector should be understood as comprising a diverse range of organizations that serve the same customers although their activities may widely differ. Thus for instance, capital good producers, engineering and consultancy companies, R&D institutes, and intermediate and final product manufacturers that serve the steel industry, for instance, should all be regarded as part of the steel sector.--- Once it is done, interenterprise flows of information, skills, -- knowledge and various technical services can easily be identi--- fied, which opens innumerable potential opportunities for cooper- ation. This of course normally occurs within national borders.-- The point here is that this network of intra-sectoral intercon-- nections amongst different agents can be -and actually is- brought to play a role in intercountry flows.

One illustrative case in point is that whereby a newly founded Argentine paper company got the process know-how from Mexico, the main items of equipment and related engineering services from Brazil and debugging services from a domestic technological institute. This was a complete spontaneous articulation of diverse skills, experience and capabilities. However, it worked and it did well. Like this one, a number of other analogous bipartite or multipartite may be quoted.

It is quite clear that for specific reasons that have to do with policy emphases and domestic idiosyncracies, the Mexicans happened to develop an advantage in terms of developing the process know-how, the Brazilians in regard to capital good design and production capability and the Argentinians in regard to the chemistry of the manufacturing process. Two considerations are suggested by this kind of experience.

First, that hardly any developing country is self-sufficient at the sector level in any industry (once sector is defined as we have done). Second, that even though technical capabilities may be quite developed across a diversified front within a given sector, collaborative arrangements of the type under review may permit a better use of such capabilities (more balanced and stable over time).

Trilateral and multilateral ETEC arrangements may also benefit from a more active role of enterprises from industrialized countries. While preserving intra-developing countries leadership and control of ETEC, as could be improved by the --

participation of technology suppliers from the North and the --- availability of markets of the advanced world. A number of experiences of trilateral joint ventures including one partner from the North suggest significant potential advantages.

The minority participation of such partner can make -- possible ETEC projects which otherwise would not have undertaken; can contribute to the unpackaging of imported technologies; can provide additional negotiating strengths in the international -- projection of ETEC ventures (+). These advantages may be enhanced if instead of or in addition to TNCs, it is possible to obtain the collaboration of small and medium-sized enterprises of developed countries, whose technologies and management styles are in -- general better suited to the characteristics of developing countries' firms, particularly those of the private sector. Developed countries could collaborate actively in these arrangements by utilizing their own institutions specialized in the promotion of the internationalization of small firms, for the stimulation of trilateral or multilateral joint ventures involving two or more developing countries.(++)

The search for new alternative forms of ETEC can find numerous modalities and techniques particularly adapted to the organization of multipartite participations. So far the focus -- has been excessively placed on multinational production enterprises,

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(+) See E. White (UNCTC), op.cit., pp. 54-64.

(++) See E. White, The role of small and medium-sized enterprises in the transfer of technology to developing countries, UNCTAD, (TD/B/C. 6/64).



which gives rise to problems of negotiation among countries re--  
garding the location of the industrial activities of a single --  
project. A strategy for the promotion of multinational ETEC ---  
should pay attention to the creation of holding joint ventures,  
of the kind utilized in the Arab region. Organized on a sectoral  
or intersectoral basis, and shared by several member countries,  
these entities are able to participate with flexibility in the -  
establishment or expansion of industrial projects at national or  
regional level. Another way of facilitating the multilateraliza-  
tion of ETEC is through trading companies, for the commercializa-  
tion of strategic goods or inputs of common interest to several  
developing countries (see further below).

4. Promotion of a wider variety of participants in ETEC operations.

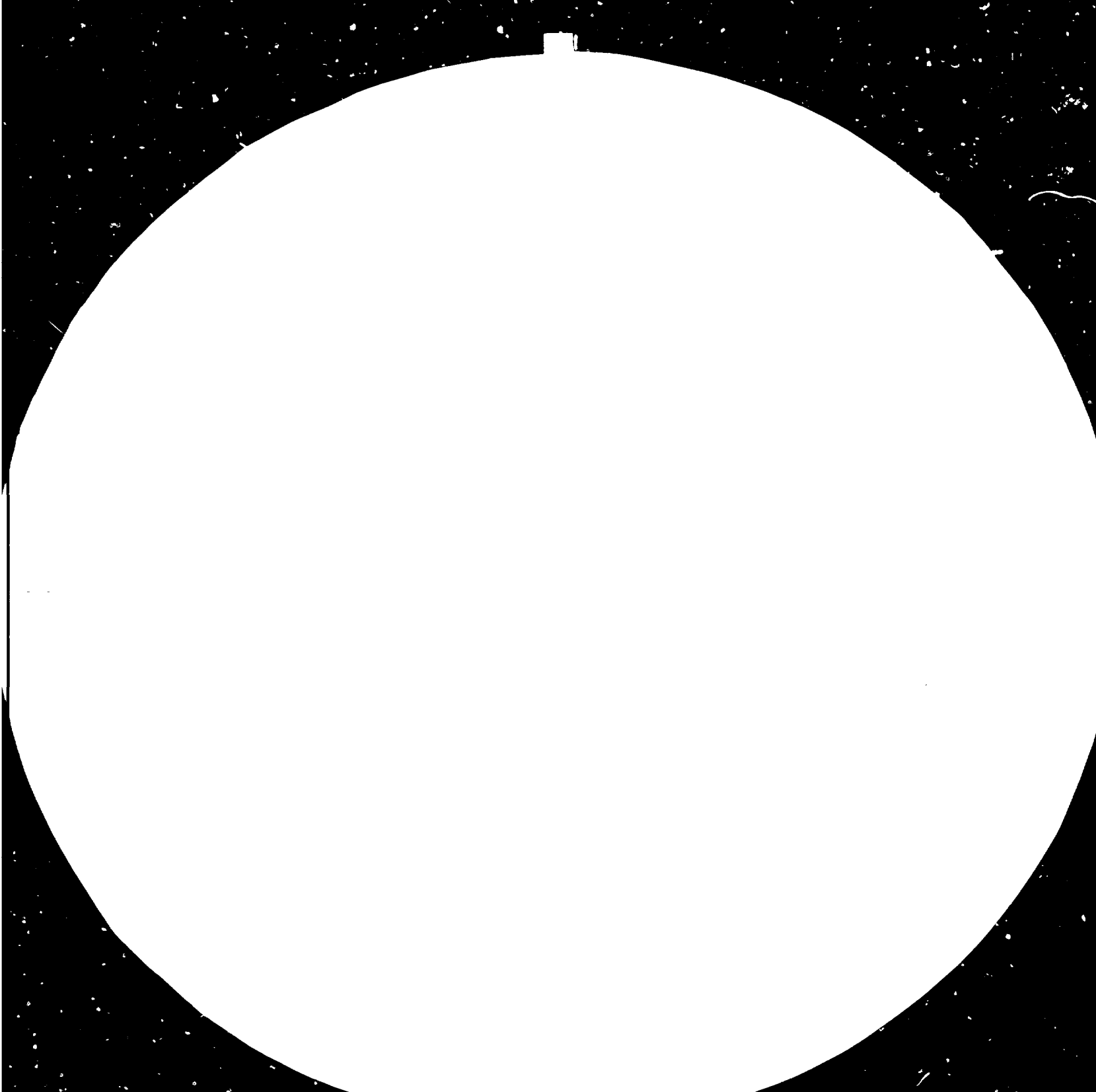
The strategy of maximizing the flows of ETEC has an important dimension at the enterprise level. The objective here is to encourage a larger base of protagonists of horizontal cooperation, so far excessively concentrated on a reduced number of the largest enterprises of the supplying countries. Promotional actions should focus on two categories of actors, which have not fully developed their potential contributions to ETEC: small and medium enterprises and state-owned firms. In addition, the role of complementary agents such as consulting firms and trading companies should be encouraged.

Obviously the low participation of smaller firms reflects to a large extent their overall problems in the domestic economy which can only be remedied by general policies. But there are also a number of points to be addressed in terms of an ETEC strategy.

Small firms suffer on the one hand, from structural disadvantages to operate beyond domestic borders, stemming from the lack or scarcity of human and financial resources which are needed to undertake the long term, high risk and usually capital intensive international operations involved in ETEC. On the other hand, they face problems for the appraisal, codification, packaging, negotiation and transfer of technology. The strategy to overcome such difficulties should not necessarily consist of a

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## MICROCOPY RESOLUTION TEST CHART

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policy of concentration or merger in order to adapt their sizes to international standards. The non-transnational character of smaller firms may be a condition to preserve their advantages -- and attractions vis a vis other developing countries. Besides, small enterprises have shown natural capacities for international cooperation under certain circumstances (+). The adequate strategy seem to require measures for complementing and supporting --- their capacities in a number of strategic areas, including fi--- nance, information, and organization of ETEC projects. Apart --- from financial facilities of easy access and specialized in ETEC operations (as those mentioned above) special incentives should be adopted to encourage the formation of export consortia or associations for carrying out jointly the effort of exploration -- and promotion of ETEC in other countries. There are already some interesting experiences of this kind, such as the Mexican organizations, Tecnimexico and Construmexico, dedicated to the exports of engineering and construction services respectively (++)).

Public enterprises, it was already observed, usually - enjoy some key advantages for ETEC -large size and monopolistic positions- but with rare exceptions they are not created nor -- adapted for international action. Their inward orientation --- is reinforced by legal or statutory controls and by the - risk aversion of public managers, which hampers their aptitude -

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(+) See E. White, The role of small and medium-sized enterprises in the transfer of technology to developing countries, op.cit.

(++) See C. Dalhman and M. Cortes, Exports of technology from Mexido, (unpublished).

for ETEC with other developing countries. National security ---- reasons or a chronic reliance on imports of technology from the North are typical obstacles for South-South joint ventures --- through public enterprises (+). The redressment of the anti-ETEC bias of public enterprises could not be based but on a positive attitude of the central governments regarding inflows and outflows of productive projects with other developing countries, and a coordination of their activities in this field. Their respective - statutes should explicitly include and give priority to intra-developing country ETEC, and the procedures for engaging in ETEC - operations should be flexibilized. Intra-sectoral ETEC among --- state owned companies of different countries may be stimulated + by bilateral and multilateral arrangements among governments setting up the framework for specific projects to be detected and - implemented by these enterprises.

Finally, consulting firms and trading companies spe--- cialized in ETEC operations are a crucial feature of a strategy in this field. Developing countries lack almost by definition -- the global networks of information, marketing and mobilization of resources provided by transnational corporations of developing - countries.

The availability of consulting and trading services is particularly strategic in the case of small and medium enter--- prises. Consulting companies would take care of the feasibility

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(+) See E. White, Joint ventures of public enterprises of Argentina with other developing countries, icpe, 1984.

studies and the basic and detailed engineering services needed - for technology transfer operations. Trading companies are capable of screening and detecting opportunities for ETEC ventures, organizing packages of cooperation involving various suppliers and recipients and combining several markets, inputs and transactions. Because of their relatively low capital intensity, both types of organizations are an attractive field for joint ventures. There are already a number of experiences of bilateral arrangements -- among consulting companies, such as the consortia of Argentina - and Brazilian companies set up to participate in binational infrastructure projects (+). Multinational trading companies --- have been organized for the marketing of strategic inputs, such as the SELA's sponsored MULTIFERT, in the area of fertilizers, - and COMUMBANA, a public latinamerican multinational for the marketing of banana (++)). New types of trading companies should be envisaged, particularly in view of the increasing balance of payment difficulties of developing countries and the problems arising for financing traditional ETEC operations. One of these would be a trading dedicated to detect, promote and negotiate opportunities for counter-trade among developing countries, involving reciprocal flows of goods, technology and investments.

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(+) See E. White, La cooperación empresarial argentino-brasileña, BID/INTAL, October 1983.

(++) See E. White, (UNCTC), op.cit.



5. To deepen and diversify the sectoral scope of ETEC

The potential for sectoral diversification is much --- larger than what the actual ETEC experience reflects. Although - the industries presently involved are ample and varied, ETEC has basically served, so far, to mobilize what developing countries have in their productive experience rather than as a channel for venturing into new areas of the technological frontier -where none of the participants has antecedents nor the individual capacity to face the risks- or to jointly develop significant innovations at the international level.

There is an extensive experience of international collaboration in the field of research and development among industrialized countries. In the European Community, such efforts --- have concentrated on high technology sectors and are supported - by significant governmental resources. In Third World countries, where the State controls important sectors of the physical infrastructure and a number of basic industries consuming enormous -- amounts of teahnology, there is a fertile ground for organizing cooperative R&D arrangements whereby the various participants -- can specialize in different elements of a technological project and expleit. together the results. Given the need to integrate - the different phases of a technology development ventures from - the design of the project to the marketing of the knowledge, the idea of setting up Technology Enterprises Jointly owned by devel

oping countries has gained acceptance (+). So far a number of regional and subregional mechanisms and Centers for technological research in developing regions have focussed on non-commercial developments. ETEC provides instead an appropriate channel for venturing in profitable technological projects in several ways. For example, the Atomic Energy Corporations of Argentina and Brazil signed agreements for the joint development of basic and applied research in the field (++) . Two pharmaceutical firms of the same countries recently started a joint venture for the development of new drugs, in collaboration with the University of San Pablo (+++). Several other fields of new technologies, such as genetic engineering and informatics, where a number of developing countries have made some inroads, should be selected and explored in terms of ETEC possibilities.

A second limitation of the present ETEC experience is that it has not been used significantly to introduce industrial activities previously absent in the productive profiles of developing countries. Several unsuccessful attempts have been made to introduce this kind of arrangements at the regional and subregional levels, through the programmed allocation of specialized plants enjoying the scale economies needed.

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(+) See A. Aráoz, Notes on Industrial Cooperation Activities in Latin America: Experiences and possibilities (UNIDO, 1973).

(++) See E. White (ICPE, op.cit.)

(+++ See E. White (IDB/INTAL, op.cit.)

Distributional conflicts between governments and lack of agreement of potential domestic investors have paralyzed most of such attempts. The search of "second best", gradualistic approaches to this question should be envisaged by regional Secretariats. Elements for such approach would be: a) the identification of viable opportunities for bilateral projects; b) the identification of intra-sectoral specialization among existing enterprises; c) the joint exploration of new projects with regional associations of national producers.

6. Mechanisms to strenghten reciprocity elements of ETEC: towards a set of performance guidaelines.

We have argued above that ETEC should be expanded and diversified at the country, sector and enterprise levels. But then comes the issue of the benefits to be drawn from increased ETEC. It ought to be a "positive sum game" on at least two accounts. First, the benefits should accrue to all parties concerned. Second, it should involve a position at worse similar in respect of transactions with advanced industrial countries.

a) Instrumentation of "Joint-Learning Ventures"

Normally, the policy framework as well as the explicit provisions laid-out in ETEC agreements are supposed to assure reciprocity between the parties. However, in fact, this is often not the case in actual practice due to unevenness of skills, information, experience and of other rescurces.

Perhaps the need here is not so much related to an increased number of regulations and requisites for ETEC operations to take place, but rather, more fundamentally, to situate ETEC operations under an entirely new light.

We have argued further above that, beyond pecuniary benefits drawn by the parties, there are other more lasting and permanent benefits that they obtain in terms of learning and skills formation. The main point here is that this kind of gains

should accrue to both parties, not just one of them. If this is so, the prescriptive implication is rather clear: there is a --- need to make sure (i) that the parties as a whole capture most - of the potential benefits to be drawn from the operation and (ii) that all of them share in the actual benefits drawn. This should be so, since what they are actually being party of when engaging in ETEC operations is, basically, joint learning ventures. These ventures may involve capital, technology, human resources: but - what they should be aimed at is at changing initial conditions - rather than increasing the same resources without qualitative -- changes. And this can only be achieved by means of increasing -- knowledge, experience and skills through managerial and technical learning.

What developing country firms engaged in ETEC opera--- tions as suppliers of technical knowledge and skills do at home they may do well but within the scope of specific conditions.---- Doing the same thing and, a fortiori, new ones, under different - conditions entails additional costs, risks and uncertainties. Who takes care of these?

Knowledge on this is rather limited. No explicit rules - have been worked out as to how such costs should be shared.

When things go well, and the operation performs and ends up successfully, the benefits are shared by the parties in ratios that are very difficult or impossible to figure out in advance - since little is known at the time of drawing out the terms of - the deals on future reapplication of experience or learning de--

rived from the operation by each of them. In case of failure, -- usually the recipient runs with the worst part, although good -- guarantee and compensation provisions --which are more often than not provided for-- may make suppliers duly cover their own responsibilities. Given their share in the costs (which are set up ---- largely on a priori bases which are related to relative bargaining strengths and awareness as to what is desired) both parties -- can be expected to heuristically maximize their learning. There -- will be an area of common interest in facilitating learning to -- each other above which the respective interests are likely to diverge -- except if locked at in a broader perspective. The area of common interest may be defined this way: the supplier will benefit if the recipient learns enough as to be able to run a trouble-free operation and, reciprocally, the recipient will benefit if the -- supplier learns enough as to be able to run a trouble-free transfer (4).

From the above, the following action-oriented implications derive. In the first place, shared objectives as to expected learning through ETEC operations should be made explicit, along -- with other objectives pursued by the parties. This way areas of -- common interest may be widened at the expense of areas of potential conflict.

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(1) In practice, some rules of thumb are applied by both parties. Their business strategy and outlook have a lot to do with their approach to this question. Sometimes recipients care little for learning but much for the direct benefit in terms of entering -- a new market or improving their position in an existing one. And sometimes suppliers care a lot for assisting in creating a technological capability in the recipient enterprise if only to better develop a market for more sophisticated future technology suppliers.

Secondly, the terms of the ETEC operations should be -- aimed at maximizing the realization of the learning potential --- entailed. This can be done in two ways. One of them is to consider joint reapplication of what is learnt through future joint operations in the same or different fields and locations as part of -- the original agreement. The other is to devise means to make use of what is learnt even in case that future joint operations by the parties does not look likely or desirable. This may involve reallocation of human resources and/or other intradomestic technical transfers so that externalities stemming from the original operation are duly captured by third parties.

This way, through explicitly stated quid pro quos and - forward provisions related to reapplication of knowledge acquired and skills developed both over time and across activities the a-- achievement of joint objectives will become more likely and thus developmental spinoffs and stability of ETEC operations strengthened (1).

b) An evolutionary approach applied to ETEC

Quite clearly, the ambivalence supplier-recipient is -- not likely to be rooted out and replaced by genuinely cooperative

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- (1) Only under very restrictive conditions which are seldom verified this kind of provisions may be unnecessary in order to - take full advantage of the learning potential involved in ETEC operations or, at least, to avoid uneven sharing of costs and benefits. The conditions are: (i) suppliers' learning costs - are those strictly necessary to allow them to perform the --- operation successfully; and (ii) the concept of "successful" in this context encompasses a full assimilation by the reci-- pient of all the information and knowledge involved.

actions insofar as there is not an actual transfer of skills and knowledge that strengthens technical capabilities of the recipient. Initial conditions can only be changed if this objective is embodied in ETEC operations.

There is ample reference in the pertinent international literature regarding fading-out type clauses whereby capital suppliers gradually withdraw as capital recipients become increasingly able to run business ventures by themselves. Not so much has been done in the field of ventures where technical and management skills are to be transferred. In actual practice cases where foreign companies that after being granted management contracts perpetuate themselves in that position are not rare.

Most of what has been done so far in this field consists basically of rather formal legislation which is seldom applied.-- Thus, for instance, there are numerous legal stipulations in many developing countries whereby local people must occupy the leading positions in enterprises formed by joint-ventures with foreign -- companies. And this applies irrespective of where these companies are originated. But, in fact, when the unevenness in management - and technical abilities between the parties is important, this -- kind of provisions are inapplicable.

It is therefore important to devise mechanisms aimed at facilitating and encouraging the skill transfer process rather -- than to force the participation of local people in roles they know little or nothing about.



This is precisely what the evolutionary approach to ETEC operations is all about. It suggests that it is possible to specify as part of an ETEC agreement a skill transfer schedule whereby explicit formal and on the job programmes are spelt out in order for personnel of the recipient party to gradually take over positions of increasing degrees of responsibility. After such programmes are completed, the responsibilities involved would be discharged by local personnel under decreasing degrees of supervision. The main point here is that this kind of fading-out clauses should not be embodied in broad pieces of legislation in the guise of general "principles", but be introduced as part and parcel of particular ETEC operations.

Objectives of this kind should be flexible and finely tuned to actual availability of manpower on case by case basis. This may imply to take a stance that may be more ambitious in some sectors or cases than in others according to the qualifications and aptitudes of available personnel.

The implementation of this kind of scheme is one of the key ways to set up networks of interlocutors for ETEC operations that may actually involve reciprocity and a fair share in the benefits by all parties concerned.

c) incentives granted after approval by the country of establishment and the UDEAC authorities include free flow of remittances and national treatment. The UDEAC Code has not been applied since its approval. The failure of the programs for regional industrial development which should have provided the basis for the creation of multinational companies, and the lack of interest or capacity of domestic investors explain the inefficacy of the scheme.

d) Recent initiatives: ECOWAS and CEAO.

- In 1981, the Economic Community of West African States discussed a proposed Protocol on West African Regional Companies prepared by foreign consultants. The project tended to establish a uniform company law slightly adapted from the draft European - Company Law. The status would be granted by the Community organs to any equity joint venture of investors of at least two member states. The concept of national investor included companies controlled by foreign capital. A protocol on investment contracts - provided all kind of incentives and advantages, and established an arbitration facility along the lines of the World Bank ICSID. The proposal failed to obtain approval from the member states and since then no other initiative was reported in this field.

- The Treaty creating the Economic Community of West Africa (CEAO) provided for the adoption of a uniform Statute (Statut type) for pluri-national companies facilitating the participation of several member states in the capital of large enterprises located in the region. The Secretariat of the CEAO requested the - UNCTAD Secretariat to prepare the proposal, which was finished -

in 1980 (+). It consisted of three "sub-statutes" for state-owned plurinational companies, companies with private investors and -- companies with or without private investors, respectively. The - first two were to be created by convention among the member ---- states, using the uniform law proposed for each type, which in-- cluded detailed company law provisions. Trade, tax and other ad- vantages and privileges were granted by the conventions. So far the scheme has not been approved by the ECOWAS Secretariat.

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(+) See UNCTAD, Project RA/74/033. Etude sur le Statut type de Societe plurinationale de la CEAO, presenté par H.T.Adam, - conseiller de la LNUCED, August 1980.

Conclusions: the role of UNIDO

Because the bulk and the most promising areas of ETEU are within the industrial sector, UNIDO has a natural role to play in this field. And because many of the actions needed for promoting ETEC have to be taken at the international, interregional -- level or have significant international connections, the UNIDO's role is strategic.

The discussion above already provides an outline for an action oriented Programme of UNIDO, which should be based on the capacity already existing in the Organization, the strengthening and coordination of some activities and the introduction of a few more services.

The following elements should integrate a Programme of UNIDO in this field:

a) Information

- Setting up a programme of "alive" exchange of commercially useful information on opportunities, markets, technology and financial sources for its utilization by enterprises through adequate national or regional focal points. Although its scope -- would be interregional, it might be necessary to launch an initial phase concentrated on one sector, defined in the way proposed in item 3 above.

- Conducting updated inventories of technological headstarts and potentials in developing countries, with particular emphasis on the existing natural resources and the mobilization

of capacities of capacities of least developing countries.

- Monitoring of the ETEC process (flows, cases and policies) and analysis of main problems and successful experiences.-

b) Technical assistance

- Organization of investment promotion services and Development Finance Corporations in developing countries, specialized on ETEC.

- Support to technical associations of national producers for introducing ETEC activities in their programmes.

- Training activities for public officers, development bankers and public enterprises on ETEC operations.

- Development of handbooks on techniques of organization and negotiation of ETEC projects.

- Analysis of trilateral, multilateral and alternative juridical forms of ETEC.

c) Promotion

- Organization of sectoral meetings of industrial enterprises of home and host developing countries, with particular emphasis on inter-regional collaboration with least developed countries and collaboration among countries at similar levels of development.

- Organization of investment Centers for South-South projects.

d) Policy guidelines

- Elaboration of common approaches to ETEC, focusing on

the "joint learning" and "evolutionary" approach as well as in -  
other aspects of the developmental impact of ETEC.

- Elaboration of guidelines for national governments on  
policies to facilitate and encourage ETEC on a reciprocal basis.

