PLAN OF JOINT ACTION FOR AGRICULTURAL REACTIVATION IN LATIN AMERICA AND THE CARIBBEAN

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PLAN OF JOINT ACTION FOR AGRICULTURAL REACTIVATION IN LATIN AMERICA AND THE CARIBBEAN: THE CASE OF MEXICO

August, 1989

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

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ACKNOWLEDGEMENTS

From its inception, the preparation of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) has consisted of a participatory process to generate and reach consensus on ideas and proposals for joint action, aimed at contributing to agricultural development in the region.

Numerous institutions and people contributed in one way or another to this effort, either through the extensive consultations carried out, or through specific contributions made in the preparation of the different documents which make up the PLANLAC.

Although we are aware that unintentional omissions may be made, we would like to thank all of those who have contributed in some way to this effort.

This document benefitted from the valuable input of personnel from the Secretariat of Agriculture and Hydraulic Resources, other members of the PLANLAC Advisory Commission in Mexico, and technical staff from the IICA Office in Mexico. Special mention should be made of the work of Victor Manuel del Angel, Carlos Vidali and Fernando Rello in drawing up the document.

Those with overall responsibility for the preparation of the PLANLAC were Felix M. Cirio, who served as coordinator of the Plan, and a working group made up of C. Luiselli, F. Jordan, H. Mussman, C. Pomareda, R. Quiros, E. Trigo, D. Londoño, and F. Dall'Acqua. Assistance was also provided by an International Advisory Commission consisting of R. Campbell, F. Homem de Melo, D. Ibarra, R. Junguito, A. MacIntyre, M. Petit, E. Schuh, L. Reca and M. Urrutia.

EXECUTIVE SUMMARY

A. PROBLEMS OF AGRICULTURE

Mexico is experiencing distressing stagnation in agriculture and very pronounced social deficiencies in its rural areas. One of the first symptoms of agricultural problems is a drop in farm production and its share of GDP. In the case of Mexico, this trend is accelerated, and parallel intrasectoral and intersectoral adjustments that are essential to maintaining economic and social balance have not been made. This is the reason for agriculture's declining capacity to transfer resources to the rest of the nation's economy and its reduced contribution to the domestic supply of basic foodstuffs, particularly corn, beans, rice and wheat. This is due mainly to the expansion of animal feed crops into areas where staple crops had traditionally been grown.

Lack of coordination of sectoral growth is another important factor to be taken into consideration. Agroindustry is aimed basically at supplying the domestic market, while the inputs and capital goods it requires essentially come from abroad. At the same time, traditional agriculture has become decapitalized, largely because of the excessive economic disadvantages to which it has been subjected through unfavorable price ratios with the rest of the national and the international economy. Furthermore, the subsidies the State has been granting since the past decade have failed to offset these disadvantages.

Widespread unemployment and underemployment are exacerbated by the swiftness of urbanization and the economy's inability to generate alternative and permanent jobs. This has depressed real wages in the countryside and the cities and has limited agriculture's potential to fulfill its role as a catalyst in economic growth.

These problems should also be viewed from the perspective of how they interact with sectoral and macroeconomic policies. Obstacles being confronted in this regard have to do with problems such as the marginal position given to agriculture in current development models, the adverse impact of macroeconomic policies on agriculture, the separation between overall and sectoral decision-making bodies, the incompatibility and contradictory effects of economic policy instruments, and the low capacity of farmers to negotiate agreements with the State.

In the field of agricultural policy, the sheer number and diversity of producers make it essential to seek institutional systems that will coordinate macroeconomic and sectoral policy instruments to form a single strategy which, on the basis of greater social consensus, will link agricultural planning proposals to the needs and demands of the extremely diverse groups that coexist in rural areas.

B. STRATEGIC GUIDELINES FOR AGRICULTURAL DEVELOPMENT

1. Internal Aspects

Reactivation of the agricultural sector is a prerequisite for strengthening the national economy and, furthermore, it demands a revamping of the overall economic policy to restore its strategic nature as the dynamic backbone of development. The major objectives of achieving food sovereignty and eradicating dire poverty also demand reconsideration of the role of agricultural development, the relative weight of the sector within the economic system as a whole, and the nature of its ties with the other sectors of the economy. Reactivation of the sector hinges on recognition of the existence of a dual or polarized agrarian structure, which prevails in the case of Mexico and in other Latin American countries.

The essential problem lies in deactivating the concentrating mechanisms of this dual structure agriculture and, at the same time, creating the necessary socioeconomic conditions to incorporate into development large sectors of small farmers who have until now remained on the sidelines of progress. This will require a number of structural changes, whose basic elements would be:

- An economic, agricultural and technological policy that is consistent with the goals of making the small farm sector more dynamic in rain-fed areas and in the agricultural sector as a whole; and that will generate real opportunities for greater employment and income in urban and rural sectors, while at the same time conserving natural resources. Policies to combat extreme poverty lie at the center of this effort.

- A set of institutional reforms dealing with the organization and operation of the main governmental bodies linked to the sector.

- Far-reaching political changes that will work to the benefit of small farmers by altering regional power structures.

- Selectee measures to directly address the serious deficiencies in food, health, education and housing conditions that afflict a large number of rural communities in the country.

2. The International Side of Agricultural Development

The second great incentive for the strategy to reactivate the agricultural sector is to be found in the international sphere. In Mexico, agricultural and rural development plans and programs have traditionally been conceived from a national standpoint, without including the influences of external variables in the analysis. This omission has introduced significant biases that affect issues from the definition of problems through proposals for operation.

For this reason, a redefinition of the development strategy for the sector cannot be made without taking into consideration the new parameters of the international scene.

Therein lies the importance of Mexico being strongly linked to the Plan of Joint Action for Agricultural Reactivation.

Two areas are important in regard to external issues:

Foreign agricultural trade

Expansion and diversification of Mexican agroexports should include the possibility of economic and trade integration with the rest of Latin America. Increasing regional trade in food and agricultural commodities and the economic complementarity of our countries in this sector are factors of utmost importance for reactivating overall economic activity.

The similarity of conditions among the cooperating countries of the hemisphere also offers the possibility of sharing in common activities of mutual or collective benefit. It also allows the exchange and transfer of highly compatible human, material and technical resources.

Owing to the size of its market, Mexico could also be a major buyer of grains and oilseeds from the southern part of Latin American and the Caribbean region (LAC). Putting this powerful reactivating mechanism into operation requires, among other measures, the establishment of information systems on markets and trade opportunities, mechanisms to promote agricultural trade such as through barter, compensated trade and regional trade agreements, the development of regional enterprises that promote agricultural trade and others.

Scientific and Technical Cooperation

Specific strategies in this area should focus on achieving a suitable insertion of the Mexican agricultural and forestry sector into the international technological system. This will require developing a number of measures to:

- Diversify and intensify international cooperation relations, particularly with Latin America and the Caribbean.

- Modernize and adapt internal and external cooperation mechanisms and promote direct links among producers, entrepreneurs and research centers.

- Improve support mechanisms in order to achieve food security, giving priority to support requirements for developing the rural areas and the small-farm economy.

- Special emphasis should be given to the selective and strategic development of biotechnology.

- Areas identified for joint actions.

C. BASIC JOINT ACTION PROGRAMS BETWEEN MEXICO, THE REST OF LATIN AMERICA AND THE CARIBBEAN

1. Participation in Cooperative Agricultural Research Programs

This effort will have reciprocal advantages if it takes place in a framework of concerted actions with other countries, which is the reason why Mexico is seeking to interact systematically with the multinational programs that operate in the Andean subregion (PROCIANDINO), in the Southern Cone (PROCISUR) and, in the future, in the area of Central America (PROCICENTRAL). The aim is to institutionalize technical cooperation mechanisms, and as us the case for the other participating countries, in order to share and take advantage of the technology available in each of them, and from international centers. At the same time, it will work to strengthen the entities and programs involved in terms of the scientific capacity of their human resources, the setting of priority to their efforts and their research capacity. Some priority researcg areas in Mexico include the development of technologies for the cultivation of corn and beans, post-harvest technology for staple grains, and seed technology of agricultural and forestry interest.

2. Participation in Cooperative Biotechnology Program

The summ of efforts, the development of areas of excellence and the anticipation of the arrival of this technological paradigm, based on its opportunities and challenges for Latin America, are of strategic importance in this field.

Specific joint action projects in this area should take into account the following priorities: genetic engineering research aimed at improving the seeds of principal crops; patent policies; promotion of joint ventures; strengthening cores of technological management.

3. Program to Develop Mexico's Agricultural Trade with the Rest of Latin America and the Caribbean

Mexico is by far the principal food importer in Latin America. At the same time, it is an important exporter of fruits, vegetables, coffee and tropical products. Almost all of this trade takes place with North America and other countries of the Organization for Economic Cooperation and Development (OECD). It would be a great incentive for agricultural reactivation in the region if greater trade flows between Mexico and the rest of the countries of Latin America and the Caribbean could be created. This is completely feasible in terms of the make up of supply and demand. In the foreseeable future, Mexico will import significant amounts of grains, oilseeds and dairy products, and Latin America and the Caribbean can supply precisely such products. Projects to boost Agricultural trade should be developed in three basic trade circuits.

The first would be the Central American area (countries of the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA), where Mexico maintains a high surplus in its overall trade balance and where it has offered to boost its imports. The trade project should seek to use the partial scope

agreements that have already been signed among these countries (and perhaps add more), and to strengthen and improve financial mechanisms made available by the Central American Bank for Economic Integration (BCIE), and other financial vehicles. The Inter-institutional Group for the Agricultural Sector (GISA), would be the most suitable forum in which to move forward in this both feasible and strategic project.

The second circuit would involve trade with the Caribbean and would operate in a fashion similar to that described above, although it would perhaps be more limited. Fortunately, in this case also, Mexico participates in the Caribbean Development Bank (CDB). Complementary mechanisms for trade information and financing would have to be explored.

The third would be a project to encourage trade with the southern part of the hemisphere - notably with Brazil and Argentina. This case begin on a more modest level, since there are no existing mechanisms for information and financing. Imaginative schemes such as the use of the external debt for payments, compensated exchanges, and so forth, could be considered. Mexico can be an important trading partner of the large countries of South America, but it is essential to find expeditious mechanisms for trade agreements and financing. Obviously, the participation of the Latin American Association for Integration (ALADI) would be indispensable.

D. OTHER POSSIBLE AREAS OF JOINT AGREEMENT BETWEEN MEXICO AND THE REST OF LATIN AMERICA AND THE CARIBBEAN

The following are three possible areas of additional work for joint actions between Mexico and other LAC countries:

1. Cooperative Plant Health Program

Plant health has traditionally been an area of important initiatives for joint action among countries. Some specific areas that would require regional or subregional agreement are mentioned below:

Identification of the agents that cause plant health problems; integrated management of coffee rust and coffee berry borer pests; integrated fruit fly management and integrated management of phytosanitary problems in fruit crops and in horticultural and ornamental products for export; phytosanitation in stored grains; sanitation in tropical forestry plantations; implementation and application of national quarantine laws; implementation and application of international quarantines measures (information and statistics, staff training for international inspection).

2. Cooperative Program for Livestock Research *

Priority areas that have been identified for this cooperative program are: grassland management, forage (exchange of germplasm from tropical areas), animal nutrition, dairy production (tropical conditions), and in general, livestock production for tropical conditions.

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* Consideration should be given to the advisability of meshing this Program with A.1 (Cooperative Research Program).

3. Cooperative Animal Health Program

Some of the areas that would be appropriate for regional or subregional action are: measures to combat ticks and bovine tuberculosis for export beef, sanitary conditions for livestock and for swine products, sanitary management in poultry raising, implementation and application of national quarantine laws.

4. Cooperative Forestry Sector Program

The basic guidelines of a cooperation program for the forestry sector should give priority to the following actions: reforestation and planting of rapid-growth species in the tropics for paper manufacturing; optimum use of land (agroforestry techniques, watershed management plans); forestry protection, promotion of the cultivation of forestry resources, efficient development of the forestry industry, promotion of financing for forestry activities, incorporation and development of owners and holders of forests and forests into production, processing and marketing processes, establishment of plantations and management of forestry resources for the production of fuel, all within the framework of policies for sustainable ecosystems.

E. REACHING AGREEMENT ON ACTIONS TO FINANCE AGRICULTURAL AND AGROINDUSTRIAL PROJECTS

Agreement of San Jose

In order to support regional processes to integrate and complement among the countries of the Central American and Caribbean area, within the framework of the peace accords of the region, the Government of Mexico signed the Agreement of San José in 1980. The Government of Venezuela also signed this agreement.

Under this mechanism, operated through the Central American Bank for Economic Integration (BCIE), Mexico channels resources into the development of the countries of the region through financial investment projects aimed at exploiting energy resources, using natural resources; developing basic infrastructure and food production, generating exports to the Mexican market, and conducting preinvestment studies.

Eighty percent of the financing for the projects goes to the public sector of BCIE countries and the private sector receives the remaining 20%. Terms are for up to 10 or 15 years with a three- or four-year grace period, respectively. They carry a 6% interest rate on outstanding balances, which the Government may reduce when it considers it advisable. This is a suitable mechanism that should be fine-tuned to expedite its use in joint action projects within the agricultural and agroindustrial sector.

I. INTRODUCTION

The Ninth Inter-American Conference of Ministers of Agriculture - a specialized conference of the Inter-American System, convened by the Organization of American States (OAS), and held in Ottawa, Canada in August of 1987 - in its Recommendation No. 10, charged IICA with "developing, in collaboration with member countries and the other specialized agencies, a strategic plan of joint action in support of agricultural reactivation and economic development in Latin America and the Caribbean." This resolution also received the support of the Seventeenth General Assembly of the OAS, in October of 1987; the Plan will also be presented to the Inter-American Board of Agriculture during its regular meeting, to be held in 1989. 1/

In compliance with this mandate, the Inter-American Institute for Cooperation on Agriculture (IICA) has proposed and reached agreement on a broad mechanism of consultation and participation for involving interested member countries, regional institutions, and technical cooperation and financial organizations in drawing up the Plan. 2/

Included in the preparation of the overall Plan is the development of "joint strategies for agricultural reactivation" for each of the four subregions covered by the Plan (Central, Caribbean, Andean and Southern), plus a special document each for Mexico and Haiti in order to fully respond to the

specific dimension, structural peculiarities and geographical location of these countries. These "strategies" provide a framework for consensus in key areas which are to be the focus of joint actions taken by the countries and subregions on behalf of agricultural development. They also set forth joint actions (programs, projects, etc.) in priority areas and institutional and financial mechanisms for implementing the Plan.

These organizational guidelines for the development of the Plan of Joint Action were approved by the Executive Committee of IICA at its Eighth Regular Meeting held in San Jose, Costa Rica, from August 1-4, 1988, as well as by the ministers and vice ministers of agriculture at the meetings of their subregional fora: Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican (CORECA), the Board of Cartagena Agreement (JUNTA) and the Caribbean Common Market (CARICOM).

1/ The working documents and the declaration and recommendations of the Ninth ICMA may be found in: "Reactivating Agriculture: A Strategy for Development." IICA, San Jose, 1987.

2/ See: "Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. Guidelines for Preparation," No. 1. IICA, June 1988.

In the case of Mexico, in addition to its participation in the CORECA forum, ad hoc consultation meetings were held with Mexican government authorities and experts, at which time the priorities of the country for the sector were determined vis-à-vis the rest of the hemisphere, and suggestions were made the possible operations under PLANLAC.

It is evident that, given the unique characteristics of Mexico, although hemispheric projects offer the most interesting prospects for cooperation and joint actions, there are also other areas for cooperation.

This document provides a succinct analysis of the agricultural problems of Mexico and puts forth general suggestions on possible solutions involving cooperation and exchanges with the countries of the hemisphere. It indicates general areas of cooperation as well as very specific areas in which Mexico can initiate its projects within PLANLAC.

II. FRAME OF REFERENCE

A. TRENDS IN THE WORLD ECONOMY

So far, during the 1980s, Mexico has been confronting an extremely unfavorable external economic situation which, in conjunction with longstanding, accumulated domestic factors, has fueled an unprecedented economic crisis. In fact, the world economy during this period of time has been characterized by slow dynamics in production and trade; by the rapid development of technology, in addition to the maturing of highly productive projects which have worked in conjunction with demand contracted by the effects of recession and adjustment policies to produce a surplus in the supply of goods; by the generalized response of the industrialized countries in terms of making their protectionist practices stronger and more sophisticated; by the sharp drop in the international prices of primary goods to the lowest levels in the past 50 years; by high rates of inflation and unemployment; by monetary instability and high international interest rates in real terms; by the crisis of the foreign debt of the developing countries (DCs), the boom reached in speculation, and the financial apparatus rising above the productive apparatus.

After the strong recession experienced in the industrialized countries between 1981 and 1982, their economies began to recover slowly but steadily, and in 1984 and 1988 reached growth rates higher than the average rate for the 1970s (3.3%), but without attaining the average rate for the 1960s (5.7%). A similar occurrence may be seen in the DCs, with the exception of the countries of Southeast Asia, although their growth has been slower, particularly when compared to the rate of the 1970s (5.7%); and, in 1988, the expected pull of the industrialized economies attributed to them by the so-called "locomotive theory" had not yet been felt.

REAL GDP GROWTH

AVERAGE	1970-79	1980	1982	1984	1986	1988 p/
World	4.1	2.2	0.5	4.5	3.2	3.7
Indust. Countries	3.3	1.4	-0.3	5.0	2.7	3.9
Developing Countries	5.7	3.4	1.7	4.0	4.2	3.6
- Asia	5.4	5.5	5.2	7.8	6.4	7.3
- Lat. America	5.7	6.0	-1.1	3.5	3.9	1.4
- Net Oil-Exporting Countries	n.a.	n.a.	1.0	3.6	-1.3	1.5

p/ Preliminary.

SOURCE: IMF World Economic Outlook, Washington, D.C. and OECD Economic Outlook, October, 1988.

The data on the growth in the value of developing countries' imports during 1987, in contrast with the drop in physical terms, demonstrate the deterioration in their terms of trade. Nonetheless, the order to increase exports at all costs and restrict imports continues, in order to save foreign exchange for servicing the foreign debt and confront the reduction in the net flow of capital toward them.

INTERNATIONAL TRADE IN COMMODITIES
(Annual growth rate)

	1982	1984	1986	1987e/	1988e/
World Trade					
Volume	-2.0	8.7	4.5	5.8	7.5
Unit value in SDR	2.1	1.8	-9.3	-0.2	1.7
Terms of Trade 1/					
Indust. C.	1.9	0.2	8.8	0.5	1.2
DCs	-0.2	-1.7	-19.6	3.1	-2.3
Oil-Exp. DCs	0.7	0.7	-48.6	12.3	-14.2

e/ Estimated.

1/ Based on unit values.

SOURCE: IMF World Economic Outlook, October 1988.

Devaluation of the dollar, in turn, resulted in rising prices for some of the commodities marketed internationally. Although it should be noted that these increases were greater for manufactured goods than for primary goods, the prices of primary goods rose as a result of circumstances such as natural disasters, as occurred in 1986 when the droughts in northwestern Brazil and the frost in some regions of Florida caused the loss of a large part of the coffee and vegetable crops, major agroexports of Mexico, and consequently pushed up their prices to the benefit of Mexico. The droughts in 1988, however, not only affected national production of staple grains, but world production as well, which raised their international prices and, consequently, the import bill for these foodstuffs.

WORLD PRODUCTION AND STOCKS OF CEREALS
(Millions of tons)

	1986	1987	1988 1/	1989 1/
Production				
USA	315.8	278.7	192.9	
EEC	155.8	156.3	165.0	
USSR	202.2	201.4	195.0	
MEXICO	22.9	23.6	22.1	
WORLD TOTAL	1,862.8	1,797.2	1,727.6	
Stocks				
Advanced Countries	287.8	316.5	283.1	171.5
Dev. Countries	131.9	131.9	117.0	112.0
WORLD TOTAL	419.8	447.	400.1	283.4
As % of Consumption	.25	.26	.24	.16

1/ Forecasts up to September 1988.

SOURCE: FAO, Food Outlook, October 1988.

In this context, careful consideration should be given to the United States proposal, made during the present GATT round of negotiations, to eliminate, in agreement with the main exporters, all subsidies and support for the production and export of agricultural commodities, as a measure to lighten the burden they represent for its federal budget; this burden is estimated at approximately 30 billion dollars for 1988, a figure equivalent to its total agroexports for that year. The proposal is also intended to enable the United States to compete on the world market on the basis of its technological progress, especially in biotechnology, a field in which it is at the forefront. In practice, this proposal contrasts with a number of barriers blocking access to its market, which are characterized by their being applied at random and in a discretionary manner, but most of all by the political clout of the agents whose interests they protect, making it all but impossible to do away with them.

EXPORT PRICES OF CEREALS AND SOYBEANS

	1987	1988
WHEAT:		
No. 2 Hard winter (ord. prot.) 1/	114	163
No. 1 Hard winter (ord. prot.) 2/	112	162
No. 2 USA YELLOW CORN 2/	73	121
No. 2 USA SORGHUM 2/	70	111
THAILAND RICE 3/	263	315
No. 1 USA YELLOW SOYBEAN 2/	202	317

1/ Export prices, f.o.b. USA Gulf.
2/ Export prices before shipping, USA Gulf.
3/ 100% second quality white rice. f.o.b. Bangkok.
SOURCE: International Trade Board, USDA, Trade Board of Thailand.

It is no exaggeration to say that financial and technological limits are now what determine the positions of the countries in their economic and trade confrontations, replacing a framework of ideological confrontation. The bipolarity that characterized the postwar international system has evolved since the USA lost its military and economic hegemony with the rising of Europe and Japan as new powers, with the emergence of the NICs, with the forming of economic blocs such as the EEC and its former colonies (Convention of Lomé), with the initiative of the Caribbean Basin or the Pacific Basin and, more recently, with the greater economic, and especially political, openness of the USSR and the more hesitant openness of China.

In this new climate, the situation of the developing countries has become more complex; the trade confrontations of the advanced countries have displaced the developing countries from markets for primary commodities, which comprise their basic export items and previously were almost exclusively theirs. The confrontations have also caused serious deterioration in trade relations concerning such commodities, which has even further weakened the role that these goods played in alleviating structural capital deficiencies. In parallel to obstacles blocking the export expansion of the developing countries, there is also pressure from the international financial system for them to obtain a surplus in their trade balances to enable them to meet their financial commitments, which has been achieved at the expense of a systematic reduction in their imports. This, then, closes the circle that closely interrelates finances and trade and displaces the final product, as may be seen in the case of Latin America, whose external debt now amounts to 401 billion dollars. For the seventh consecutive year, the service paid has been greater than what was received; in 1988 alone, these payments reached almost 30 billion dollars.

The technological revolution has become one of the main limiting factors to the development of the Latin American countries by causing radical changes in the world productive structures that have affected the fields suitable for specialization in these countries. The large investments required for research, the training of human resources and industrial conversion, which are indispensable for competing on the international market, are incompatible with their capital insufficiencies. Thus, the lack of capital and technology confronting the region drastically limits means for its economic reactivation and its possibilities for autonomous development. In these circumstances, it is paradoxical that the region continues servicing the debt, thereby placing it above these priorities and the social well-being of the region.

For the countries of Latin America, development options are becoming more limited, since the first thing that must be recognized is that we are in the presence of a process in which the major economic forces are dominant and are increasingly deteriorating the possibilities for autonomous development. What is fundamental is that, although it is impossible to withdraw from international constraints, the response cannot be limited to support channeled from abroad to the detriment of the domestic situation; such support must be coordinated in a balanced manner.

From this viewpoint, what is needed is a strategy based on an energetic foreign policy which will expand room for negotiation and, at the same time, be domestically complemented with strengthening of the nation's productive plant. The first means, which will be dealt with in this Plan, implies diversifying relations with advanced countries to attenuate their degree of influence, as well as moving forward toward the regional integration of Latin America by overcoming natural and imposed obstacles, in order to form a common front against the offensive of the countries of the North.

B. MACROECONOMIC POLICIES AND THE AGRICULTURAL SECTOR

1. The importance and general problems of agriculture

This study analyzes and appraises the potentials of the agricultural and livestock sector (hereinafter referred to as agriculture) for its own development and for its contribution to Mexico's economy as a whole. It is then a question of making progress in the most precise diagnoses possible of the fundamental problems of agriculture and their relation to the rest of the economy and, on that basis, defining strategy guidelines for its development, all within the cooperation framework of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean.

From the standpoint of agriculture making a substantive contribution to the reactivation of Mexico's economy, it must be remembered that the sector has contributed significantly to the industrialization and economic development achieved by the country. Up to the mid-1960s, the agricultural sector satisfactorily fulfilled its role as supplier of inexpensive and sufficient foodstuffs to the population of the country, of raw materials for industry, of foreign exchange to sustain industrial growth and of surpluses that provided support for diversification of the

economy and for industrial development to substitute imports; it also created jobs and provided cheap manpower to support the development of other economic activities. Nevertheless, since the 1970s, the agricultural sector has showed greater inability to continue contributing to the degree and under the conditions that it previously did and to meet the current needs of Mexican society.

One of the prime characteristics of this new situation is the drop in the agricultural sector's share of gross domestic product (GDP); in 1940, the sector contributed 19.4% of total GDP; in 1970, only 11.6%; and, in 1986, it did not reach 10%. (Table 1 of the annex).

Although it is true that this reflects a loss of importance of the agricultural sector in the context of a more diverse and complex economy, it would be a mistake to think that it has become a sector of secondary importance, since it continues being highly significant within the intersectoral relations that produce national wealth and it performs important functions in the key fields of generating foreign exchange, jobs and, most important, food supply.

Agriculture increasingly overlaps interindustrial relations. Input sales to other industries represents 56% of the production value of the primary sector (agriculture, livestock , fisheries and forestry exploitation), according to the 1980 input product matrix. The primary sector's role as a supplier of national industry is particularly important in the case of the food, beverage and tobacco industry, of the wood industry and of the textile, garment and leather industry, since these industries purchase 50%, 27% and 8%, respectively, of their domestic inputs from the primary sector. As a whole, the primary sector sells the manufacturing industry one third of the domestic inputs that it consumes, which reflects the important role that it still plays. Furthermore, the purchase of industrial articles by agriculture is increasing and leaves no room for doubt concerning the weight of this sector in interindustrial relations and the significance that agricultural reactivation would have on overall supply and demand.

Similarly, in the field of employment, agriculture continues providing jobs to a large part of the economically active population, even though the development process has also lost weight in this field. Currently, one third of the population is working in the agricultural sector, which is still a significant proportion if we consider potential increases in productivity and rural income that would generate the incorporation of this manpower into activities with renovated technology and if we take into account plans to attack poverty and inequality, since most of the poor live in rural areas.

Above and beyond the factors mentioned, the priority of agriculture is based, first and foremost, on the goal of food sovereignty, since it is a strategic goal of national security for any country in a context in which the instability of international prices and stocks of basic grains, on the one hand, and domestic insufficiency of foreign exchange, on the other, make food supply from abroad uncertain.

Foreseeable, changes in the size, rate, distribution and structures of the population by the year 2000, constitute limits for the future development of agriculture, because of the need to ensure supplies of agricultural origin to a society of approximately 104 million people, mostly urban (slightly more than 75 million) with more advanced degrees of industrialization and much more diversified demands. But possible contributions from agriculture will not be forthcoming without reactivation of the sector itself to enable it to overcome its current stagnation. This requires the formulation of strategies to correct and boost the sector.

The drop in the agricultural sector's share of GDP, a trend present in practically all the world's economies, generally indicates the emergence and progress of other sectors, and has become considered a normal and even positive situation. Nevertheless, in the case of Mexico, this trend is occurring in an accelerated manner, without parallel intrasectoral and intersectoral adjustments that must take place in order to maintain economic and social balance.

A second characteristic refers to agriculture's decreasing capacity to transfer resources to the rest of the nation's economy. What was once a strategic activity that provided support for industrializing efforts is now facing difficulties that prevent it from continuing to make net contributions and, on the contrary, force it to request resources from other sectors to surmount the crisis afflicting it. In the 1960s, the sector generated annual net foreign exchange for some 300 to 400 million dollars, in spite of the dynamics of the sector's imports which, between 1971 and 1985, grew 17-fold, while exports only doubled, causing, by the mid-1970s, a notable reduction in its capacity to generate foreign exchange. The consequences were felt in the 1980s when the agricultural trade balance showed considerable deficits on the order of 500 million dollars a year. When that occurred, agriculture stopped contributing foreign exchange at a time when it was urgently needed. Nevertheless, economic reactivation plans assign agriculture a position of the first order, owing to its participation in the current and potential generation of foreign exchange.

The third salient factor is the reduced contribution of agriculture to the domestic supply of basic foodstuffs. To a large extent, this has been caused by advances made in crops for animal feed on areas traditionally dedicated to the cultivation of basic foodstuffs, a situation which arose during the second half of the 1960s, demonstrating the deep extent of the crisis confronting agriculture and a cause for losses in food self-sufficiency, which, with some exceptions, continue up to the present time. The above situation has resulted in basic food production below the national population growth rate, which means a reduction in per capita food production. During the 1983-1987 period, the situation became more serious, since crops such as sorghum and safflower, in contrast to a decade earlier, also fell into stagnation and increased pressure on the sector's already deteriorated trade balance.

Imports for domestic supply reflect Mexico's degree of food dependence. In the case of corn, which in the mid-1960s was the sector's top export commodity, massive imports began in the 1970s and, at the present time,

are equivalent to approximately 20% of the nation's production. Bean imports, which show erratic behavior, began in the 1950s, although it was not until the first half of the 1980s when imports increased sharply and even reached an amount equivalent to between 20% and 35% of national consumption; In spite of more dynamic production, wheat imports have risen in recent years. Rice is the only crop for which self-sufficiency has been achieved.

Lack of coordination in the growth of the sector is the fourth factor that hinders it from continuing to work toward Mexico's economic growth. Agroindustrial development has been another obstacle to the degree that its production is aimed basically at supplying the domestic market, while its requirements for inputs and capital goods must be met essentially from abroad. It is true that raw material imports are increasingly important to many companies and entire production branches; these imports, in addition to the imports of inputs and agricultural equipment, increase the trade deficit in the agricultural balance, which in 1985 amounted to more than 2 billion dollars.

In contrast to export agriculture and particularly intermediate crops whose profitability has been ensured, traditional agriculture has become decapitalized, to a large extent because of the excessive economic burden to which is has been subjected through an unfavorable price ratio with the rest of the national and international economy, and the subsidies granted by the State since the past decade have not compensated for this situation, but have accentuated the structural heterogeneity of the sector which, at times, is masked by its strength to withstand the onslaught of the crisis.

The sixth factor is the expansion of rural unemployment and underemployment, which are being worsened by acceleration in urbanization and by the economy's inability to generate alternative and permanent jobs, which has contributed to the depression of real wages in the countryside and in cities. In 1960, the population employed in primary activities was 6.1 million individuals, equivalent to 54.2% of Mexico's employed population, while in 1970, this figure dropped to 5.1 million, equal to 39.4% of the total employed population. Population growth from 1964-1966 to 1983-1984 grew by 2.6%, while effective agricultural employment only grew at a rate of 0.2%. This drop in agricultural employment was caused, among other factors, by lack of growth in the agricultural frontier, by increasing mechanization and use of tractors in some cases and by fewer investments in infrastructure works and highway and road construction.

The reduction in the primary sector's share of the nation's total economically active population (EAP), caused by urbanization and by the precariousness of its earnings, is the seventh factor that limits the sector's potential to continue growing at previous rates. In 1950, its EAP represented 58.3% of the national total; and in 1985, only 24.4%. According to projections for the year 2000, this proportion will drop even more and reach 18.3%.

It should be noted that slightly more than one third of the 5.7 million people who comprised the EAP of the agricultural sector in 1980 did not

receive earnings and nearly half of the remainder obtained earnings below the legal minimum wage.

The average yearly wage for a person working in the agricultural sector is far below that in the rest of the economy, and all factors indicate that this trend will continue. In fact, the average yearly wage in the agricultural sector in 1970 was equivalent to 27% of the general average wage in the economy. In 1985, the ratio was even more unfavorable, since the percentage fell to 21%, which is even more serious than it appears, since it occurred during a period of generalized and pronounced losses in the purchasing power of wages.

This downward trend in wage levels has curtailed the demand for food commodities, which account for a significant part of the expenses of 70% of the families that receive incomes equal to or less than two minimum wages.

The demand for basic grains such as corn, beans, rice and wheat, has been affected significantly and national consumption of these grains has apparently decreased during this decade. In 1981, almost 36 million tons were consumed in the country; in 1987, however, consumption dropped 14.7%, to 30.7 million tons. This reduction even affected human consumption of basic grains, which dropped from 19.8 to 17.5 million tons, equivalent to a decrease of 11.6%.

Although the above-mentioned factors are indicative of the crisis being experienced in the agricultural sector, which has prevented it from continuing to boost economic growth through the direct transfer of resources, they have not eliminated agriculture's strategic role in the country's current and future development. It should be borne in mind that obsolescence of the import-substitution model was caused more by the industrial plant's inability to adapt to the needs of a growing and more international economy than by agriculture's incapability to continue sustaining the economy with its foreign exchange and inexpensive inputs.

Reactivation of the agricultural sector is a prerequisite for strengthening the nation's economy and, furthermore, requires revamping the overall economic policy to reinstate its strategic nature as a dynamic axis for development. This is a fundamental premise that applies to the entire study, together with another premise that makes agricultural reactivation contingent on recognition of the dual or polarized agrarian structure that prevails in Mexico and other Latin American countries, that is, an agricultural sector in which there are, in general terms, two types of production units clearly differentiated in their technical-production development, in their participation in the market economies and in their different internal operation logistics. Thus, the starting point of any reactivation policy is knowledge of this structural nature of the agricultural sector and of the limitations that it places on any agricultural modernization program.

A summary interpretation of these premises is that reactivation of the agricultural sector requires structural changes that go beyond circumstantial modifications in agricultural development policies. This viewpoint is the result of evidence obtained from reviewing agricultural

development policies of different periods in which they do not prove to be an essential factor in explaining the actual patterns of agricultural development. That is, they do not clearly indicate a direct link between policy to regulate agricultural development and actual development directed by the guidelines of those regulations. What is detected, in contrast, is a situation in which agricultural policy is adapted to the trends of agricultural development rather than regulating it; the different patterns of agricultural policies are simply concrete expressions of that adjustment or adaptation.

If these observations are correct, they verify two important aspects: first, that agricultural development in Mexico, as in other Latin American countries, has been dominated by structural factors of the sector itself, which the policies implemented have consolidated rather than reversed; and second, that consolidation of these factors has resulted in a dual agricultural structure which, as has been noted, can only be surmounted through the implementation of a structural change policy that counteracts rather than consolidates these trends in agricultural development.

Structural factors are related to the production and consumption patterns that have been adopted in Mexico and in most of the countries of the region, which, briefly expressed, follow a process whose trends are:

a) Strong expansion of extensive bovine livestock raising to meet the demands of limited domestic groups in the population with medium and high incomes and of the foreign market. This process takes place at the expense of actual and potential arable lands, and consequently leads to insufficient expansion and even contraction in the production of consumer goods for the majority of the population.

b) Agroindustrial development aimed at industrial capital enterprises, many of which are transnational, and in response to their demand for inputs, distortion in the composition of crops, which results in a structure that favors agroindustrial commodities to the detriment of the cultivation of basic commodities and even export goods.

c) Urbanization that implies more homogeneous diets, with expansion in the consumption of products such as wheat, even in countries where it is not produced, displacing native products. These phenomena, together with those cited above, cause strong food dependence.

Thus, the expansion of extensive bovine livestock raising, transnationalized agroindustrial development and urbanization are the main structural causes of the polarization dual agricultural structure. On the one hand, the sector that supplies agroindustrial demands was greatly modernized and demand became dependent on the technology of the advanced countries, while the balanced food industry, through its demand for animal feed grains, exerted strong pressure on the food system by transforming the pattern of crops and food dependence. On the other hand, production of popular consumer goods was relegated to poor quality lands with traditional production techniques and a great shortage of financial and technical resources.

2. Macroeconomic policy and agricultural development

Policies implemented in different periods have not reversed these trends, principally because agriculture has not been considered a dynamic sector for national economic reactivation and, instead, has in most cases been subordinated to a complementary role in different models and national development plans. It should be noted that this complementary role of agriculture was functional up to the mid-1960s but, since that time, has become a true obstacle to Mexico's economic accumulation and expansion.

Interrelations between macroeconomic policy and agriculture and the existence of a clearly differentiated and heterogeneous agrarian structure are essential factors that every agricultural reactivation plan should place at the core of its analysis. An interpretation of their evolution and their effects on the main variables in agriculture are presented below. From this historical account, some conclusions may be drawn that will be of use in approaching the problem of the heterogeneity of the agrarian structure and completing our diagnosis of the main agricultural problems and relations.

The links between the evolution of macroeconomic policy and agricultural growth will be analyzed on the basis of the following central ideas:

- Macroeconomic policy has been defined outside of agriculture, first, on the basis of requirements for boosting industrial expansion at its different stages, and second, on the basis of the international monetary, financial and trade sphere, which has progressively gained preference in plans that define macroeconomic development objectives;

- Consequently, the design of macroeconomic policy has responded to development models in which agriculture has been relegated to a complementary plane and has not been considered a central axis for development, regardless of whether the resulting macroeconomic context has been favorable or unfavorable to agricultural reactivation;

- Against the backdrop of this situation, two characteristic aspects of agricultural development stand out: on the one hand, it has been dominated by its own inertia, that is, by structural factors associated with production and consumption patterns followed in the country and, to a large extent, furthered by hegemonic capital; on the other hand, macroeconomic policies, more than reversing, have adjusted these structural trends. Thus, different types of macroeconomic policies are different expressions of this adjustment in all the periods analyzed and, in this manner, macroeconomic policy has become one of the main factors consolidating structural trends within the dual nature of the sector.

In the light of the macroeconomic policies followed in Mexico, the evolution of agricultural development indicates marginalization of agriculture and failure to recognize its dual structure. In the four periods analyzed, it may be seen that the axes of development strategies are defined outside of agriculture. Regardless of whether the framework of macroeconomic policies turn out to be favorable or unfavorable to the

agricultural sector, the privileged actors in the development strategies followed in Mexico since the 1940s have been principally industry and its productive expansion (of easily substituted or nondurable commodities and intermediate and capital goods, depending on the period in question).

Thus, in the first period, which goes from 1940 to 1955, a favorable macroeconomic context was encouraged, since the goals of industrial expansion were relatively consistent with those of agricultural development. The import substitution process promoted on the basis of the industry of nondurable consumer goods increased, directly and indirectly, the demand for agricultural goods (as inputs or as foodstuffs). In this context, agricultural prices rose more than those of other goods, public investment expanded significantly and agrarian redistribution continued, factors, which, taken as a whole, triggered agricultural expansion during this period. In addition, the positive impact of the external sector helped to form the well-known "virtuous circle" of operations between agriculture and industry, with agriculture providing the foreign exchange needed for industrial expansion.

In contrast, during the period of so-called "stabilizing development" from 1955 to 1972, macroeconomic policies exerted a negative influence on the sector's growth. The new strategy aimed at achieving price stability and fiscal balances without discouraging industrial production, drastically modified the previous macroeconomic panorama: basic basket food prices were the most affected and grew much less than those of other goods (an estimated lag of 19% in relation to the implicit GDP deflater); although public investment continued growing, it was insufficient to offset the drop in private investment, and overvaluation of the peso, which had prevailed since the previous period so as to lower the cost of acquiring capital goods for Mexican industry, also had a negative impact on agricultural production. The interplay of these factors disrupted the "virtuous circle" of agriculture and industry and the crisis in the agricultural sector began to become apparent both in the loss of food self-sufficiency and in the drastic drop in its net contribution of foreign exchange.

During the period from 1973 to 1982, the growth with stability strategy was replaced with an expansion policy based on a rapid increase in spending and public investment through monetary financing and domestic and foreign indebtedness. These policies granted agriculture a priority position: net public investment was slightly more than 20% of the sector's product, while in the preceding period it had only amounted to 10%; growth in subsidies was spectacular, both through loans and through public sector prices and rates; furthermore, the organization of rural producers was encouraged; the distribution of high-quality land was accelerated and new institutions for rural support were established. In spite of the sizable transfer of resources mobilized through these factors, dynamic growth of the sector was not forthcoming.

The main causes of these results are twofold: macroeconomic policies and the dual agricultural structure. In the former, it should be stressed that the crucial importance of prices as tools for the sector's reactivation lies above other factors. The evolution of prices during this period was erratic, but on the average showed a reduction of 3.4% for

1972-1982 (in foodstuffs such as corn and beans the decrease was 16% and 23%, respectively), which leads to the assumption that this variable in the macroeconomic sphere was the main factor responsible for the sector's poor production response and, furthermore, this direct correlation between price recovery ad production response is evident in the four periods under analysis.

Nonetheless, it is important to note that the evidence also shows that Mexican agricultural problems are not limited nor solved exclusively in the sphere of prices. Here the obstacle of the dual agrarian structure, which greatly constrains the efficiency of an agricultural policy based only on subsidies and public investment, takes on greater importance. In accordance with experience gained in this period, indiscriminate subsidies form the strategy that most favors the concentration of government benefits and supports; a strategy based on indiscriminate transfers can only lead to greater polarization.

Just as an agricultural development strategy cannot be based solely on indiscriminate subsidies, neither can it be limited to price recovery as the only basis for reactivation. This is a fundamental element in the analysis of the fourth and final period from 1983 to 1987, in which stabilization policies were put into practice and in which, counter to common claims, some macroeconomic variables can be identified as factors that favored agricultural reactivation.

During the period from 1983 to 1987, a stabilization strategy was adopted in response to the expansion policy of the preceding period during which a macroeconomic context that was, in principle, completely adverse to agriculture, had arisen. The purpose was to combat inflation and, consequently, excessive overall demand had to be held back through traditional measures to drastically reduce public spending and government investment, eliminate subsidies and establish limits on demands for wage increases. These factors, as a whole, translated into a strong contraction in the amount of resources earmarked for agricultural support and incentive policy: reduced public spending affected the agricultural sector most of all, credit increased at rates below those in the past, financial subsidies were eliminated, interests rates were bought into line with the cost of attracting deposits and the prices of inputs provided by the public sector were raised.

At the same time, peso overvaluation policies were done away with and international trade was deregulated, measures which were considered necessary to correct trade imbalances and problems of overprotection. In general, there was a consensus that greater trade openness and adjustment in public finances would affect agriculture negatively, because it is a sector of the economy that depends heavily on public investment, credit and subsidies, and because of the existence of a significant traditional sector of producers who would be unable to cope with foreign competition. Nevertheless, evaluation of results on the whole has not yet been so negative.

In terms of GDP growth, the sector's performance has been modest but better than that of the economy. GDP growth from 1982 to 1986 was negative (-0.7% annually), while growth rates of the agricultural and

livestock sector were positive (1.7% and 2.0%), though below population growth. In any case, Mexican agriculture has been unable to overcome its stagnation. This relatively acyclical behavior of the sector brings up different elements for evaluation in this period.

In the first place, the inertia and acyclical nature of agriculture is closely associated with the inelastic nature of the aggregate demand for food in relation to the drop in income, which, to a certain extent, reduces the negative influence of stabilization policies on food production. Although the productive behavior of the sector is important, it cannot be explained or determined solely on the basis of demand factors; consequently the determining factors in production and supply dynamics must be explored in greater depth. They are just as closely linked to macroeconomic variables of profitability as they are to differentiated responses to address the heterogeneity of rural producers.

Thus, the profitability of agroexports was notably favored by the maintenance of undervalued parities established by the new trade and exchange policy; although recovery was not widespread, it was because of the protectionism of the importing countries and certain inflexibilities in the sector. Furthermore, agribusiness commodities, such as sorghum, soybeans, rice and wheat, increased their profitability owing to hikes in their relative prices and to decreases in real wages,thus offsetting increases in input prices and in interest rates. Otherwise, these products and export commodities as a whole were not affected by the cutback in credit, since they are not highly dependent on such credit.

The situation is different for typical campesino crops. On the one hand, they did not benefit from the reduction in real wages, while the effects of the devaluation were counteracted with the price policy. On the other hand, with the exception of corn, reductions in financial support were particularly severe for these products. Here, the operation of dual structure elements in the sector are clear: in spite of the depressed level of their profitability rates, the production of basic grains was maintained because it was carried out by a campesino economy with an operation rationale different from that of agribusiness.

From the results obtained in evaluating this period, conclusions may be drawn that clearly show the complexity of the problems of Mexican agriculture. As presented above, the following elements may be underlined:

- The acyclical nature and relatively favorable performance of the sector as whole, shows that the agricultural crisis is not entirely a generalized situation, but rather exists predominantly in the subsector of the campesino economy that produces basic grains.

- It is impossible to generalize the fundamental problems of agriculture because of the diverse situations it presents; consequently, the effects of stabilization policies have been dissimilar and even contradictory. The final results of these effects depends on the weight of favorable instruments in relation to those that work against the sector.

- From recent experience in the country, a final judgement on the results of these effects cannot be made; if the judgement is on the sector as a whole, the results have been slightly positive, but if the composition of producers is taken into account, the outcome is favorable for agribusiness and unfavorable for most of the campesino subsector.

- The results obtained cannot be judged solely by circumstantial and short-term responses. Economic and social factors, which are associated with structural change and are essential to agricultural reactivation, must be incorporated into the results.

- From this standpoint, the final effects of stabilization policies are totally adverse for agriculture, since they imply setbacks in its development by contributing to the spread of intrarural inequality and to the consolidation of polarized or dual structured agriculture; that is, they contribute to exacerbation of precisely the problem that efforts are being made to solve.

Economic and social repercussions are numerous. Not only did agribusiness benefit much more than campesino agriculture, but the major losers were agricultural wage earners and the poorest campesinos who work during a large part of the year as day workers and comprise at least half of rural inhabitants. The polarized agrarian structure, which is the result of the Mexican agricultural growth model, provides the explanation for the unequal and exclusive effects of the stabilization policy.

Another aspect of the stabilization package, which undoubtedly had an important influence on the dynamics of food production, is the significant decrease in the income of most families, owing to the wage constraint policy which has, in fact, made the basic food basket more expensive. In 1982, a four-member family had to dedicate 34% of its income to acquiring this food basket; this figure rose to 52% in 1986. Although the inelastic nature of food demand has already been mentioned, it may also be said that the wage constraints reached in the country were so great that overall food demand had a significant impact on this variable.

III. CHARACTERISTICS OF THE DUAL PATTERN IN AGRICULTURAL DEVELOPMENT

As was seen in the analysis in the previous chapter, the problems caused by the dual agricultural pattern are not limited to social injustice and unequal distribution of wealth and rural income, but are also expressed in the difficult and contradictory development planning of the sector. Economic and agricultural policy tools do not work in the same way, or produce the same results in a dual agricultural structure as in a more homogeneous one.

Thus, the design of an overall strategic framework and, especially the precise definition of policies and measures to promote the agricultural economy, demand not only recognition of the sector's dual structure, but also an evaluation that specifies the exact dimension of this phenomenon. The viability of an agricultural reactivation strategy drops notably or loses its effectiveness equally by overestimating or by underestimating the extent of this dual structure. Consequently, in this chapter an attempt is made to describe, insofar as information allows, the dimensions of the dual structure of Mexican agriculture in the principal areas in which this phenomenon appears, and its principal causes.

A. AGRARIAN STRUCTURE AND AGRICULTURAL PRODUCTION: ORIGINS OF POLARIZATION

The separation between agrarian and agricultural policies is commonly pointed out to indicate that agrarian reform in the country did not keep pace with the redistribution of land, water, access to capital, inputs and the creation of infrastructure, nor did it promote the bases for suitable ejido organization for production. Consequently, the agrarian reform process followed is largely responsible for the accentuated polarization of the sector, of its productive resources and of the production and income generated in the different rural strata or social groups.

A preliminary indicator of this phenomenon is the weight of production in the different forms of agrarian land tenure. According to 1970 census information (more recent information is not available), the two principal forms of tenure, the ejido and both large and small private property, add up to a total of 3,200,000 production units. Although ejido parcels make up 70% of the total production units, the remaining 30%, consisting of private property, generated 57% of the total value of agricultural, livestock and forestry production.

It is obvious that these results are intertwined with different factors linked to the quality of land which, together with investments in infrastructure projects and productive organization, determine agricultural productivity and, furthermore, the commercial value of the goods that are produced. These factors, as a whole, have been favorable to the business sector and unfavorable to the campesino sector.

According to studies conducted, polarization can be summarized in three large social groups in rural areas: the group comprising infrasubsistence and subsistence properties that are unable to meet family needs or ensure their productiveness, which forces them to sell their labor outside the property; family properties that are able to meet their needs and make their labor productive; and finally, medium and large multifamily

properties that require and hire salaried workers. On the basis of this stratification of the aforementioned study, conducted in 1970, the following characteristics are outstanding:

- Infrasubsistence and subsistence properties, which number 2,491,000 and represent 78% of the total, only account for 15% of the value of agricultural production. It should be noted that three fourths of the ejido system falls within this category, that is, 77% of redistributed lands are located on this type of property.

- Family properties, which number 383,000 and represent 12% of the total, account for 15% of agricultural production. This category, together with the first group, includes 88% of the total ejido units and 90% of the all agricultural production units.

- Medium and large multifamily properties number 310,000 and represent 10% of the total properties; their production amounts to 70% of the total value of agricultural production. The establishment of a group in the countryside formed by 290,000 medium-sized multifamily properties, 82% of which are ejido parcels, warrants special note. It may be assumed that this is where the largest amount of ejido leasing takes place.

Apart from the unique features of private or ejido property and the level of its use, the presence and evolution of these groups present different characteristics. The first group, which is deteriorating, is made up of semiproletariat campesinos: from 1950 to 1970, the number of properties in this group increased from 2 to 2.5 million, but its relative weight fell from 81% to 78% of the total, while its production share fell from 23% to 15%, all of which occurred together with a progressively increasing trend in the number of day workers.

The category of family properties, which represents a campesino family economic group that is apparently stable in its economic relations, decreased from 424,000 to 382,000 during the same years of reference, which may have been caused by their moving up to the next strata by increasing their production or, in other cases, by their moving down to the lower strata as a result of division caused by population pressures. Their relative proportion dropped from 18% to 12% and, their contribution to production fell more drastically from 41% to 15%. The weakening of this intermediate strata demonstrates the rapidness of concentration in income production which occurred principally in the 1960s.

Another aspect of this concentration process may be verified in the evolution of the last group formed by medium and large properties. This is an expanding group that may be described as a rural business sector where the number of properties (which do not always strictly correspond to production units) increased from 15,000 to 310,000, that is, from 1% to 10% of total properties and its share in production jumped from 36% to 70%.

Within this last group, it should be noted that the greatest growth occurred in medium-sized properties, which over these 20 years rose from 16,000 to 290,000 and are, for the most part, ejido parcels. Furthermore,

in terms of production value at constant prices, this group rose tenfold, so that its relative share increased from 10% to 40%. The increase in agricultural production may be explained by the expansion of the agricultural frontier and basically by public investment in irrigation projects in the north and northwest of the country.

From the evidence of these indicators, it may be concluded that the situation prevailing in the countryside after 70 years of agrarian reform is a deeply polarized and unequal property and production structure. The characteristics of this structure, are not only evident in the differing production shares of different types of land tenure, but also in the distribution of production factors and resources available, as well as in their distorting effects on the pattern of crops and food self-sufficiency, and their linkage with the different sectors of the economy, all questions which will be discussed below.

B. CROP STRUCTURE AND FOOD DEPENDENCE

Crop composition is a clear indicator of great imbalances in the agricultural food sector, that is, of the relations between agriculture and agroindustry, as well as relations with the rest of the productive sector linked to its economic expansion.

As has been indicated, these dynamics have been dominated by transnationalized agroindustrialization, with technological and consumption patterns foreign to the economic and social conditions of the country, to its development possibilities and to the availability of natural resources, all of which, together with the rapidness of urbanization, has resulted in growing food dependence.

Polarization of agriculture is not only the result of these processes, but at the same time is a factor which explains these imbalances and the higher rates of food dependence. This is true because of the production specialization that prevails, in principle, between private and ejido production units, but particularly between subsistence (including infrasubsistence units) and family units, which may be grouped together as small producers, with the agribusiness sectors of the countryside that have been mentioned previously.

Thus, the production of ejido units, which comprise 90% of the first group of small producers, contribute as a whole 43% of the agricultural product. The ejido units' minority share is of strategic importance, since it represents most of the basic commodities: 64% of the corn (70%, if private small landholdings - minifundios - are included), 65% of the beans, 66% of the rice, 80% of the sesame seed, 63% of safflower, 50% of peanuts, 61% of the rye, 51% of green chile and 72% of the sugar cane, principally. In turn, the group of private properties larger than five hectares includes most of the highly profitable commercial and export crops such as wheat (67%), soybeans (76%), cotton (53%), alfalfa (51%), sorghum (59%), tomatoes (80%), avocados (70%), oranges (60%) and grapes (88%). Most of these crops are irrigated.

In these indicators, it is important to note that the basic goods whose production is important to making Mexico self-sufficiency in food depend

precisely on units whose production organization and techniques lag farthest behind. Furthermore, the food security that could be achieved through a suitable balance in the agricultural sector's foreign trade is not foreseeable in the evolution of crop patterns.

Between 1965 and 1980, the evolution of the harvested area of different types of crops showed unique behavior: while the harvested area of industrial products in 1980 rose 267% over that of 1965, the area dedicated to the production of basic commodities fell 15% and that dedicated to export production dropped 30%.

In 1985, in comparison to the previous 30 years, these trends led to the area harvested for exports dropping from 14% to only 4% of the national harvested area; the area of basic commodities also fell from 72% to 52%, while the harvested area for industrial goods rose from 8% to 22% of the harvested area during this period of time.

These changes in structure are closely linked to the principal deficits in food production, and to the contribution of the agrofood sector (agriculture and agroindustries) to our country's foreign trade deficit. Modifications in the crop patterns, closely associated with the direct and indirect expansion of livestock raising in agriculture has brought about the replacement of beans and corn by sorghum and soybeans in almost the entire country and particularly in the Comarca Lagunera and Tamaulipas. In 1985, agriculture, livestock, forestry and associated agroindustry imports, all together, amounted to 2 billion 888 million dollars, 50% of which were absorbed by the livestock complex alone; and these imports accounted for 20% of Mexico's total imports that year. It should be noted that the agriculture and forestry sector sometimes show a positive foreign trade balance, since agricultural, forestry and agroindustrial inputs are not included. The truth of the matter is that agriculture, and particularly its livestock sector, is not only unable to meet the country's food demands, but also causes an external imbalance that seriously burdens Mexico's economy.

C. TECHNOLOGICAL CONCENTRATION AND PRODUCTION RESOURCES. DECAPITALIZATION OF CAMPESINO AGRICULTURE

The concentrated distribution of technological and production resources is another of the expressions of the dual structure of agriculture. Resources available in each of the forms of land tenure, private or ejido, maintain a different distribution of the different production factors. According to the 1970 census, the principal characteristics of this distribution are as follows:

- Ejido properties, as a whole, comprise 70% of the total and the remaining 30% are private properties. As far as total capital invested in the properties, with the exception of the value of the land, these proportions are inverted, with the private sector receiving 73% of the total and ejido properties receiving 27%. This distribution is also true in the case of farm machinery.

- The imbalance is slightly less for technological expenses: two thirds of the total are spent for the private sector and the remaining one

third for ejidos. These proportions are inverted for temporary or permanent manpower employed in the countryside; it is 35% for private property and 65% for the ejido sector.

- As regards the use of inputs, 12% of the producers used improved seeds, nearly 25% applied fertilizers and approximately 11% used pesticides. These proportions tend to rise as the size of the properties increases.

These data, although at a highly aggregate level, confirm the concentration of capital, machinery and technology in the private sector. It is assumed that the tendency toward concentration has not been substantially modified, except that concentration is now mixed with production stagnation, which accentuates the problem and defines the fundamental aspect of the crisis in the agricultural sector. Even though information is not available to specify its magnitude, it may be deduced from overall indicators, which will be presented below, that the gap between traditional rural producers and rural agribusiness has widened, so that efforts to revitalize the sector are increasingly reduced, owing to this situation.

Preliminary evidence for this assertion are the poor results obtained, in spite of the significant amounts of resources channeled into the countryside through expansionist policies in the 1970s, which were reviewed in the previous chapter. Now, limiting considerations to an analysis of the behavior of investment and its components, as well as the use of the package of technological inputs, we can arrive at similar results: concentration and consolidation of the agribusiness sectors of the countryside and parallel decapitalization of rural campesino producers.

D. CAPITAL FORMATION IN THE COUNTRYSIDE

The behavior of investment and consequently of capital formation in the agricultural sector were irregular with a downward trend from 1960 to 1984. It rose from an initial gross value of 22.4 billion pesos at 1977 prices to 60 billion pesos on the average between 1975 and 1982, and then dropped to nearly half that average in the final years analyzed.

The important point is that the trend throughout this period resulted in agriculture's share in national gross investment dropping from 13.4% to 8%, and its share in overall production also decreased in relative importance.

The correlation between agriculture's relative decrease in gross investment and its reduced share in GDP is clear, although a more detailed breakdown is needed to establish the causes and the impact on its development dynamics. In principle, it is obvious that an effective increase in the productive capacity of any economic activity depends on the amount of net investment obtained for that purpose. In the case of the agricultural sector, this component had been losing importance since the 1960s and continued until it reached a deficit level. At the beginning of the 1960s, the replenishment of capital reached two thirds of gross investment, but, in 1983-1984, the flow of investments reached a

point where they did not even cover accumulated depreciation, that is, net disinvestment was reached with critical repercussions not only for expansion, but even for conservation of the sector's basic infrastructure. The sector had become decapitalized.

Specific areas of decapitalization may be partially identified if the course of investment is broken down by activity subsector. In this regard, it is significant that between 1960 and 1973, a period in which decapitalization trends were pronounced,* net livestock investment was greater than agricultural investment during all the years, even though agricultural production was 25% greater than livestock production. In contrast, agriculture during this period initiated its path of negative net investment rates, followed by relative recovery at the end of the 1960s and a drastic drop in the 1980s.

As already indicated, the relative recovery in agricultural investments in the 1970s and the first two years of the 1980s did not provoke any significant response, because of the components toward which investment was preferentially directed, its links to problems concerning the structure of the sector and, obviously, investment maturation processes.

In relation to the first factor, it should be noted that, while public investment in the period from 1952 to 1958 continued to focus on large irrigation works in the north and northeast of the country, during the following six-year period from 1958 to 1964, there was a strong contraction in public investment in the sector, which particularly affected irrigation works, which, to this day, has not recovered. This is clearly shown in changes in the agricultural capital structure, which undoubtedly reduced its production potential: irrigation works, which amounted to 75% of agricultural capital, depreciated in 1960, fell to 50% of existing capital reserves in 1984, while mechanization boomed, particularly in the mid-1970s, and reached one third of agricultural capital in the year referred to.

In parallel, livestock capital maintained support in the value of livestock numbers and in a stable rate in the construction of wire fencing, stables and buildings, from which it may be inferred that expansion was principally in extensive livestock raising. Thus, livestock numbers, machinery and equipment, and irrigation facilities accounted for more than 90% of capital formation in the sector, which means that they gained ground in this share of overall installed capital in the countryside at the expense of items such as irrigated areas and plantations that have a direct influence on the expansion of production coverage.

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* Years recognized as the period of guarantee price freezes and a related downward trend of irregular growth in agricultural investment in which replenishment amounts increasingly absorbed greater production.

This composition of capital stock and its evaluation, linked to some partial indexes of mechanization, shows that decapitalization of the sector did not affect commercial agriculture, but, on the contrary, suggests a process in which the counterpart to capitalization, concentrated in commercial producers, was proportional decapitalization of campesino agricultural. Furthermore, the decline in the use of labor is concomitant with the growing weight of capital in agricultural production operations:

- There was an increase of 46% in capital invested per unit of land between 1960 and 1980, while capital for labor only rose 23.5%;

- This form of accumulation aimed at displacing labor may also be verified in the increase of 25% in the provision of capital per active person between 1960 and 1984;

- In the livestock subsector, these rates are relatively low; from 1970 to 1980, the subsector raised its invested capital by 42%, and focused it on the reproduction of beef cattle and, to a lesser extent, on swine and poultry. This lower rate and the predominant share of cattle numbers once again shows that livestock expansion was preferentially extensive.

The trends to expand livestock raising within agriculture may also be verified in the use of inputs in the agricultural sector, which showed an annual average growth of 7% between 1960 and 1984, in which livestock inputs had greater weight. In the period referred to, the use of inputs in agriculture showed a growth rate of 5.1%, while those used in livestock raising grew by 11.4%.

It should be noted that the use of inputs is closely linked to the different development policies implemented in the sector. In the context of the green revolution, dynamic growth may be observed from 1960 to the mid-1970s but, from that time on, it slowed down until it fell sharply in 1982 at a negative rate of 4.7% with the agricultural sector being most affected by a plunge of 7%. As was said in the previous chapter, adjustment policies meant a break with the traditional supports of subsidy policies for this production activity, whose most severe effects were felt more in agriculture than in livestock and, in particular, in the campesino producer sector, where the use of technological inputs depends on subsidies and related assistance, as well as promotion policies.

In summary, the accumulation process in the countryside has maintained growing trends toward the concentration of land (under forms of lease) and particularly of production and technological resources. At the same time, a progressive decapitalization process that only affects the campesino and is linked to the expansion of the business sector is becoming apparent. On the one hand, this process accentuates the heterogeneity of agriculture and, on the other, it imposes limits on expansion in the coverage of production and generation of jobs, because of the incorporation of capital-intensive production methods in agribusiness. This situation is becoming more acute through stabilization policies by depressing the consumption of inputs and, in general, the productive use of land, which

results in stagnation in productivity rates and the production coverage of campesino agriculture, which is not offset in the agribusiness sector.

E. SOCIOECONOMIC REPERCUSSIONS

1. Employment

The principal socioeconomic repercussions of polarized development on agriculture are its inability both to meet the demand for food and, most of all, to contribute to satisfying the growing demand for jobs resulting from accelerated population growth and, owing to unique structural characteristics, even greater growth in the economically active population (EAP).

In comparison with the other sectors, primary activities have lost importance in the number of jobs they provide. In 1960, the population occupied in the sector was 6.1 million people, a figure equivalent to 54.2% of the employed population in the country. By 1970, occupation dropped to 5.1 million and the sector's relative share fell to 39.4%.

The structural incapacity of the agricultural sector to generate the number of jobs required by the population is evident in the 1964-1966/1983-1984 period in which population growth rose by 2.6%, while effective agricultural employment generated during the same period grew only 0.2%. Owing to the low rate of jobs created, the sector has displaced many inhabitants who have gone to swell the ranks of the already seriously crowded cities, as may be seen in the differential growth by sector, previously cited.

Some of the factors responsible for the drop in employment in the sector are: expansion of the agricultural frontier was not significant during this second period; increasing mechanization and the use of tractors in the cultivation of some crops displaced labor; investment in infrastructure works tended to fall; and manpower that had traditionally sought jobs in cities of the United States encountered an increasingly contracted job market. At the same time, the number of salaried day workers increased from 1.6 million people in 1950 to 2.5 million in 1970 and 4.5 million in 1980, a figure that represented 79% of the agricultural EAP in the final year.

In addition to the problem of open unemployment being faced in agriculture, there is a high rate of underemployment, which may be explained in part by the short harvest seasons of crops. According to direct results of field research conducted by the International Fund for Agricultural Development (IFAD) and Banco Nacional de Crédito Rural (BANRURAL) in 1977, it was found that the average number of days worked per month in agriculture was only 14, a fact that demonstrates not only the problem of unemployment but also of underemployment, which affects most of the rural population. Furthermore, of the 240 days of the year considered working days, day workers are employed only 171 days, which is only slightly more than 70% of the total.

2. Income, wages and rural poverty

According to the figures of the National Institute of Statistics, Geography and Information Services of the Secretariat of Programming and Budget (INEGI-SPP), a greater share of the "remunerations of wage earners," amounting to 43.5%, was registered in 1976. From 1976 to 1985, however, its share dropped to 32.2%, a figure which represents the lower percentage participation of wage earners in the national disposable income from 1970 to 1985. The minimum wage fell in real terms by 46% from 1978 to 1987, which shows wage levels below those of 1966, 22 years earlier.

The effects on the demand for basic grains such as corn, beans, rice and wheat has been significant, and their apparent national consumption fell during this decade. In 1981, almost 36.1 million tons were consumed; in 1987, however, this consumption fell 14.7% to 30.7 million tons. This reduction included the consumption of basic grains for human consumption, which fell from 19.8 to 17.5 million tons, a fall of 11.6%.

During the 1981-1982/1985-1986 period, per capita beef consumption dropped from 15.8 to 11.6 kilograms per year, an average decrease of 26.6%; pork consumption fell from 18.4 to 12.8 kilograms, 30.4% less; consumption of milk dropped 12.7%; fish, 29.4%; corn, 6.2%; beans, 28.1%; oranges, 13.5%; bananas, 28.4%; and sorghum, 11.9%.

The National Program for Comprehensive Rural Development states that in 1979 there were 19 million people (12 million in rural areas and 6 million in urban areas) who presented serious calorie-protein deficiencies. The situation has possibly grown worse because of the effects of the economic crisis afflicting the country.

Some degree of undernutrition is present in 74% of the population. In the rural population, minors show a high degree of undernutrition, which amounts to a calorie-protein deficiency of 60%. This deficiency is 50% in the adult population.

According to the ECLAC definition of poverty and extreme poverty, in 1970 there were 17.4 million inhabitants living in poverty in Mexico and 6.1 million living in extreme poverty. Of the poor, 61% lived in rural areas, while 67% of the extremely poor lived in rural areas. As may be seen, the number of poor and extremely poor amounted to 14.7 million inhabitants in rural areas, which is equivalent to saying that, to some degree, 74% of the rural population lacked minimum food and well-being goods and services.

According to FAO estimates, in 1980, the rural population grew 17% and amounted to 23.3 million people. The poor rural population grew 50% while the extremely poor grew 49%, reaching 15.9 and 6.1 million people respectively, which means that together they amount to 22 million, a figure equivalent to 94% of the total rural population in 1980.

These figures on the poor and extremely poor are alarming in themselves, since a large proportion of the rural population falls within the lowest levels of food and social well-being. Although in education matters, literacy rates are higher than population growth, 58.1% of the total

illiterate population, which numbered 6.5 million people in 1980, live in rural areas. As regards housing, the number of inhabitants per housing unit was 5.4 in 1960, 5.8 in 1970 and 5.5 in 1980. Availability of services are evident in the following data: in 1960, 67.7% of total housing units did not have running water; in 1980, the figure dropped to 28.4%. In 1960, only 28.9% had drainage, while in 1980 this figure rose to 51%, and the number of housing units with electricity reached 75% that same year.

F. THE INSTITUTIONAL FRAMEWORK OF AGRICULTURAL DEVELOPMENT

Together with structural and objective obstacles to agricultural development and its interacting relationship with sectoral and macroeconomic policies, a number of problems that may be referred to as political and institutional and are also of significant importance in the dynamics of the sector, need to be separated for analysis. In the case of Mexico, this aspect of a diagnostic study is indispensable, because of the State's great involvement in agriculture, which has strong historic roots that will not be discussed here, although it is important to mention the phenomenon in order to give an idea of the magnitude of the problem.

The obstacles being confronted in this regard are not minor and are linked to problems concerning the marginalization of agriculture in the development models, the negative impact of macroeconomic policies on agriculture, the separation between overall decision-making bodies and sectoral decision-making bodies, the incompatibility and contradictory effects of economic policy instruments, the poor response of rural producers and weakness in reaching agreements with the State, among others. Thus, basic clarity and consensus is needed concerning development priorities, which calls for a review of the task of leadership, that is, the process of analysis, consultancy and decision-making which, as will be seen further on, currently reflects problems of coordination, timeliness and workability in the institutional systems.

In the field of agricultural policy, the abundance and heterogeneity of production agents makes the search for basic consensus unavoidable, demands institutional systems that coordinate both macroeconomic and sectoral policy instruments and, on the basis of consensus, link the proposals of the authorities in charge of agricultural planning with the needs and demands of the different groups that coexist in rural and related spheres.

In synthesis, the institutional problems can be divided into the following categories:

Problems of dual structure

Mexican agriculture expresses itself faithfully in the case of bureaucratic, dual structure agriculture, which is characteristic of countries where State involvement is strong.

The Mexican State, instead of supporting the economic and political strengthening of campesino organizations, an essential ingredient in any

strong agriculture, decided to become the tutor and director of ejido agriculture. To that end, it created large and costly agricultural regulation apparatuses which, in practice, have been replacing small producers in the management of rural production.

The problem of polarization is that, once it is consolidated, it becomes extremely difficult to implement reactivation policies that can mobilize a significant part of the sector and create the economic multiplication mechanisms observed in agriculture in process of development. In countries with more homogeneous economic structures, trade-offs between the economic sectors are established, but these lose their power when heterogeneous and unequal production structures prevail. For example, the creation and expansion of technology in dual structured agriculture is aimed at the modern subsector, while new technology for rain-fed or tropical agriculture is almost nonexistent. Thus, the agriculture-industry relation never becomes a growth factor for agriculture.

The dual structure also creates adverse situations in the field of organization for production and union defense. In the less-advanced subsector, dispersion and disintegration among campesinos prevails. This has a negative impact on the management capacity of agricultural production projects and on the capacity to defend the economic surplus generated. This is a challenge that recent policies of the Mexican Government are now trying to meet by promoting concerted agreement as the basis for its agricultural development policy. The problems stemming from the dual structure give rise to difficult and contradictory planning of the sector's development. Economic and agricultural policy instruments do not function in the same way nor produce the same effectiveness in a dual agricultural system as in a more homogeneous one.

The fact that price policy design has different effects on the different types of producers at the opposite ends of the technological continuum is inescapable. At what technological level should official guarantee prices be fixed? At the lowest price level for business production costs in order to reduce the price of foodstuffs in the cities but, at the same time, reduce campesino income? Or rather at a higher quotation to guarantee campesinos sufficient earnings, but contribute to inflation and to the excessive earnings of more modernized farm producers? Similar questions could be posed in the field of subsidies, agricultural interest rates and agricultural input prices.

In summary, the problem of rural polarity lies at the core of development planning and demands specific policies based on a thorough knowledge of the heterogeneity of agriculture. Thus, as this situation becomes more acute, it turns into a source of increasingly pronounced conflicts and contradictions between the key actors in the management of agricultural development.

Absence of basic consensus

A recent study based on a survey of the perception of the different key actors (farmers, agricultural leaders, officials and technicians of the agricultural sector and, fundamentally, officials of similar sectors) who participate in agricultural development management concerning topics that

revolve around the role of agriculture in national development, provided interesting results on consensus:

- It was found that diversity of perception among the actors is more the rule than the exception, and that these differences arise not only between key actors who participate in different spheres, but also among those who share the same areas. Furthermore, it was found that, although there is wide consensus regarding the important role of the agricultural sector, on the one hand, it is not always precisely known what the basic elements that define that role are and, on the other, there is not equal agreement whether that role is subordinate or not.

- It is not possible to determine a single pattern of differences in perception; that is, beyond the position and sphere of participation as being the final or only determining factor for such perceptions, it seems clear that this diversity presents confusion and/or lack of knowledge concerning both the sector and its relations with the rest of the economy and with the different policy levels.

- The differences in perception that arise between actors who participate in the same positions is undoubtedly one of the most unfortunate limitations, since they generally cause rifts between the key actors in the same sector, which make it more vulnerable than other related sectors. It should be pointed out, however, that the differences in perception between different key actors are not necessarily harmful to the tasks of management, but, to the contrary, can contribute favorably, as long as there are mechanisms through which differences can be overcome and thereby enrich discussion in decision-making. The problem arises when differences cannot be surmounted.

- The differences or agreement in perception on the part of the key actors belonging to the same sector are important in themselves, but they are insufficient for good management; when perceptions agree on points that differ from the actual situation or when they weaken the negotiation power of the agricultural sector, the results are negative. Separation of sectoral and macroeconomic decision-making bodies.

Here, it is important to note the different perceptions of the key actors concerning the influence of the macroeconomic policy, and adjustment programs that embody it, on the reactivation and development of agriculture, as well as on the effectiveness of the mechanisms used to define, implement and adjust such reactivation and development.

As pointed out in the analysis of stabilization policies in chapter 2, the problem refers to the instruments that regulate the economy and that influence agriculture being outside of the agricultural policy sphere. Exchange and foreign trade policies, fiscal and monetary policy, subsidy policy and others that have a great impact on agricultural production are defined on the basis of macroeconomic considerations that scarcely take into account the problems of the agricultural sector.

It is no exaggeration to say that the true ministers of agriculture are now the heads of the ministries of finance or of trade or of the central banks. The analysis of the key sectors is aimed at clarifying this situation and proposing bases that will improve the capacity for analysis, consultancy and concerted decision-making within the public sector and with the different social forces.

The development of this area is based on the confrontation between the formal declarative level of macroeconomic policy and the level of the policy actually implemented, considering its effects on the agricultural sector.

A brief review of the policy at the formal or intentional level reflected in the different spheres, such as the Constitution of the United Mexican States, particularly in recent amendments to Articles 25 and 27, or the macroeconomic policy and sectoral policies expressed in the 1983-1988 National Development Plan, or the specific policies included in the different development programs and even the measures and actions formulated, allows the following conclusions to be drawn:

i. Official discourse recognizes the predominant role of the rural sector in national development and of its contributions to the rest of the economy.

ii. In general terms, there is correspondence and consistency between the different levels of the policy formulated.

Nevertheless, analysis of recent macroeconomic policy has shown that it was unable to have a decisive influence on the sector's recovery and development. On the contrary, even when the economic adjustment policy tended to create restrictive and recessive conditions in practically all economic sectors, some sectors were more affected than others, such as the agricultural sector, which was one of the most affected in almost all the spheres of the macroeconomic policy.

The above considerations demonstrate that, even though the policy formulated granted the agricultural sector a priority role in the national development strategy, the policy implemented treated it in a secondary manner.

Taken as a whole, these perceptions seem to indicate that a large part of the actors believe that readjustment measures are painful and negative in the short term, but necessary and positive for the future. It would seem to be a question of an "unpopular by necessary" policy or a policy of "advisable pruning for the nation," even though most of the key actors expect the economic readjustment measures to translate into a contraction in the sector's activities, a concentration of resources and, to a lesser degree, its causing a greater lack of coordination in agroindustry and benefits to agents outside of the sector.

However, 20%, most of whom were agricultural leaders, believed that this adjustment would stimulate agricultural growth. The group in which the lowest proportion expressed this viewpoint was that of officials of the agricultural sector, which may indicate their greater access to recent estimates in this regard.

The analysis of this situation has demonstrated the existence of an unsuitable relation between agricultural sectoral policy and the macroeconomic policy. On the one hand, the predominance of overall policies aimed basically at establishing balance between the large macroeconomic aggregates, leaving the agricultural sector relegated and in subordinate conditions, contrasts with the declared priority of the sector. On the other hand, the predominance of a macroeconomic policy that penalizes agriculture in relation to other sectors is obvious. The result may be seen in the frustrated efforts to achieve goals that will work toward comprehensive rural development.

Concerted agreement between the State and social forces

The results obtained in this analysis, not only indicate the poor performance of management mechanisms with regard to infrastructure and technical assistance for planning, but are also clear indicators of the weak and widely proclaimed concerted agreement between the State and rural producers. It is obvious that the lack of knowledge on the fundamental problems of agriculture, their imprecision in the measures needed for its reactivation and the short foresight concerning the penalizing effects of the adjustment policies, reflect two equally serious situations: on the one hand, the persistence of a traditional planning system closed, in particular, to the participation of rural producers; and, on the other hand, the weak presence of consolidated producers' organizations, which, aware of their interests as a sector, would offer the technical and political capacity needed to gain acceptance for their alternative projects that effectively respond to their economic and social conditions.

Among the majority of those interviewed, there was consensus in indicating that participation of the actors of the agricultural sector in analysis and decision-making bodies for overall or macroeconomic policy was very reduced and limited, open only to the top leaders of the agricultural sector and, what is more, passive with very little possibility of actual influence on decision-making.

Some specific aspects of the key actors' perceptions make it possible to understand the sector's inability to gain recognition for its interests in relation to other sectors. As mentioned before, nearly half of the actors not only believed that the readjustment policy should be gradually applied to the agricultural sector, but even thought that it should be accelerated. If it is noted that these same actors agreed that the agricultural sector should occupy a place of priority in the process aimed at giving impetus to the economy, and that the adjustment, to a large extent, takes place through cutbacks in spending and particularly in investment, it could be said that these agents do not consider these variables decisive in agricultural reactivation.

IV. RURAL MODERNIZATION STRATEGY: GENERAL ORIENTATION AND LINES OF ACTION

Promotion of agricultural and rural development in Mexico has been a commitment and permanent goal of the governments since the Revolution. First, accelerated agrarian land redistribution and the construction of important hydroagricultural infrastructure works and, later, public action to promote production and productivity have been the major means used in attempts to move toward modernization of the sector.

The diagnostic study of the situation prevailing in the countryside showed significant progress in different activities, regions and producer groups; but it also underlined how much remained to be done, particularly in terms of greater balance in development and in the distribution of benefits. Accumulated deficiencies sometimes take on a distressing human face; production deficiencies harm the sovereignty of the country and lack of democratic participation in the countryside compromises the viability of its development.

The crisis situation being experienced since 1982 has significantly restricted room to maneuver in boosting economic growth. Government policies have been aimed at correcting macroeconomic imbalances as a starting point for the reformulation of development on more firm bases, with the implementation of a number of structural adjustments that have become a heavy burden for most of the population by making social inequalities and conflicts more acute. At the present time, the economic crisis shows evident, though isolated, signs of deficient coordination and even political conflict.

The policies adopted have also shown strong biases against agriculture. In particular, cutbacks and higher costs for financing, greater openness of the economy, the handling of the exchange rate, wage constraints with their accumulated effect on demand, distortions in the general price structure and, especially, severe restrictions in public investment in infrastructure and in government spending to support and stimulate production and productivity have deteriorated capital formation in rural areas, technological modernization, the generation of income and its distribution, employment rates and, most of all, the living conditions of campesinos.

Within institutional activities, significant experience has been gained in the field of planning and operating rural development since the end of the 1960s. Some outstanding examples of comprehensive programs are the Plan for the Use of the Productive Resources of the Rio Balsas Basin, the Contalpa Development Plan, the Program of Public Investment for Rural Development (PIDER), the Program for the Development of Depressed Areas and Marginalized Groups (COPLAMAR), the Mexican Food System (SAM) and the National Program for Comprehensive Rural Development (PRONADRI), which was in force from 1985 to 1988. A great deal of progress has been made conceptually and operationally, but perhaps the most important lesson has been that without mechanisms to gain the effective participation of producers all the way from designing strategies up to their implementation, control and assessment, results may not go beyond good intentions.

In general, the agricultural policies and programs mentioned have, to a greater or lesser degree, suffered from a pronounced vertical structure in which interpretations of the problems, recipes, decisions and resources flow downward from above. In the vast majority of cases, the resources do not belong to the producers and, consequently, they show little interest in their proper use and conservation. Thus, what is traditionally considered an alliance between the State and campesinos in political discourse has been deformed and become a paternalistic relationship, which has opened up considerable room for pretense and corruption.

Campesinos have also learned a great deal in this process. Today they are aware of the political force they acquire when they organize; that they are the ones most familiar with their problems and most able to confront the solutions, that official paternalism, rather than benefitting them, corrupts social relations in the countryside; that the corruption encouraged by local leaders and caciques implies subjugation. In rural society, broad consensus that rejects pretense and tutelage may be perceived; campesino groups demand support to make their lands produce, but support that is not subject to any conditions; they demand respect for their forms of organization, true mechanisms of democratic participation, and they demonstrate their willingness to reach agreements on actions and commitments with the government and with other producers.

The rural development strategy should be reformulated under this framework in order to channel it toward the modernization needed to meet today's challenges.

Regardless of the strategy institutionalized, it must be based on the fact that reactivation of dual structure agricultural requires in-depth reformulation of agricultural policy in order to make the majority sector of campesino producers more dynamic. This sector possesses a significant share of the country's natural resources, it has the capacity to generate an important economic surplus and, through its production and social organizations, which have been tested and strengthened by experience in claiming its rights, particularly over the past 15 years, it is able to play a key role in restructuring the sector.

This does not mean that agroindustry should be left to one side. It is of great importance in relation to the production of agricultural commodities for export and of some goods and industrial inputs for the domestic market; it should therefore continue being developed, but it should be taken into account that reactivation of the sector cannot be based solely on making this segment of agriculture more dynamic. The rural modernization strategy principally implies incorporation of the poorest campesinos into the growth process. It is a question of reducing inequalities and rural poverty, while, at the same time, creating conditions to tap unexploited resources whose mobilization will bring about the most self-sustainable development possible.

The large number of poor campesinos and rural wage earners who have insufficient resources to survive, and receive a large part of their income from selling their labor, calls for the formulation of specific strategies. There is a need for greater access to land and productive resources, for the creation of jobs off their property and in activities

outside of agriculture, and for the strengthening of the household unit's capacity to produce food for its own consumption.

A basic principle of the rural development strategy should be to use all means to strengthen mechanisms to increase rural income and employment, and to make progress in achieving food self-sufficiency in basic grains the major means of achieving this goal, in addition to the political advantages implicit in having national food supply assured.

Making campesino agriculture more dynamic is an indispensable prerequisite for converting the sector into an axis for reactivation of the economy as a whole, since it would significantly expand the market for producing industrial projects. But, prior to serving as a reactivation factor, the agricultural sector must be revitalized, because, if the rationale of dual structure agriculture continues restricting most of the technological progress and products to the segment that is already developed, its influence on reactivation will be limited.

The essential problem lies in deactivating the concentrating mechanisms of dual structure agriculture and creating the socioeconomic conditions needed to incorporate the large sectors of campesinos who have so far been left on the sidelines of rural development. Small-scale campesinos need to agree to economic growth mechanisms in order to gradually promote a more balanced structure in which intersectoral relationships will benefit agriculture.

This incorporation must be relatively rapid and generalized in order to take advantage of mutually reinforcing mechanisms to increase income, jobs and the adoption of new technologies, and to transform the agriculture-industry relationship into a creative and reforming link for both parties, but particularly for agriculture, principally during the first stage. After more than 50 years of agrarian land distribution in Mexico, it is obvious that this action is insufficient to revitalize the agricultural sector as a whole, just as traditional agricultural policy based only on the manipulation of some economic variables, such as prices, credit and public investment, without accompanying them with more structural economic and social reforms, has proved to be inadequate.

There is a need for a number of structural changes whose basic elements would be:

- An economic, agricultural and technological policy that is consistent with the objectives of making campesino agriculture more dynamic in rain-fed areas and the agricultural sector as a whole.

- A set of institutional reforms that will cover the organization and operation of the main governmental bodies linked to the sector to substantially improve the implementation of development policies.

- Far-reaching policy changes that will benefit campesinos through changes in the regional power structures, so as to establish the economic and political authority of the campesinos and allow for true democratic participation of all the members of rural society through their production and social organizations. The essential factor is

the political will to accept campesino mobilization as an indispensable means of achieving economic reactivation.

- Selective measures to directly address serious deficiencies in principally food, health, education and housing, that afflict a large number of rural communities in the country and are unlikely to be solved by any dynamics produced by the reactivation of production.

A. RURAL SOCIAL PARTICIPATION IN NATIONAL LIFE

This participation takes into account renewal of the social pact with agriculture based on the strengthening of the social organization and participatory democracy of the producers and of the rural communities in order to achieve the higher goals of safeguarding food sovereignty and rural social well-being.

It is proposed that the social pact with agriculture be renewed to strengthen the historic State-campesino alliance through the following lines of action: responsibility shared between the State and the producers, greater social participation in the tasks of rural modernization and the modernization of public bodies for agricultural development. Progress along these lines of action will additionally require updating of the legal framework in force to make agrarian and rural legislation consistent with modernization of the countryside.

The responsibility shared between the State and the producers

In accordance with recent demands of rural producers, it would be advisable to transfer functions that are now carried out by official agencies and could feasibly be better performed by producer organizations themselves, and by states and municipalities. The purpose of such transfers would be to make the region the sphere in which actions to support the modernization of the rural sector are generated and implemented, and to have the organizations themselves assume the responsibility of equitably distributing the benefits obtained among their members.

This decentralization of functions would require the adoption of a gradual and organized process based on social consensus as the principal mechanism, taking into account the level of development of the social organizations, the granting of complementary services that would imply new tasks and the training required to efficiently perform the functions to be decentralized. In the case of activities to be decentralized toward the state and municipal governments, the financial and institutional capacity of each entity would also have to be taken into account.

The rural development strategy should recognize the ejido, small property and the community as valid categories within the State-campesino alliance, since these are the predominant forms of land tenure and constitute the essence of the rural population's social will and the way of life.

It is necessary to boost the modernization of the ejido and of communities by developing policies to strengthen them as bodies of campesino representation and transform them into complex units of economic management. Their serving as representatives implies strengthening their political capacity in the democratic exercise of their internal structure,

while their role in economic management refers to increasing their capacity to coordinate productive processes, to optimize the administration of resources, to retain and capitalize surpluses and, in short, to strengthen their autonomy in programming their production goals, in directly managing credit and their own corps of technical assistance in the struggle for better prices for their products and in the direct acquisition of inputs.

Authentic small property needs priority attention in rural development actions, owing to the importance of such production units in reactivating agricultural production and combatting minifundismo (unproductively small landholdings) on the basis of small properties themselves. Concerted action with the small property will have to be based on the associations of small producers, including particularly rural production associations, cooperatives and unions of production associations.

Promotion of social participation would have great impetus in municipalities, which would become rural development promoters with the capacity to plan and implement activities, and to follow up on the activities of governmental bodies and social participants on behalf of the community.

The support of the federal and state governments for municipalities would make it possible to grant them minimum investment resources for production development and for the construction of infrastructure for social well-being: housing, complementary services, education, culture, social security and health. It should be the responsibility of the municipalities to strengthen institutional action, by promoting the solidary work of the community and optimizing the use of resources in these activities.

B. MODERNIZATION OF PUBLIC AGENCIES

Modernization of public agencies will have to be aimed at reducing the heterogeneity of agencies that participate in agriculture, as well as the scattering of powers and functions whose coordination is complex and reduces the efficiency and effectiveness of institutional actions for the development of production and rural social well-being.

To that end, administrative and operational policies that strengthen management capacity in the agricultural public sector should be designed in order to establish greater consistency in the criteria of sectoralization and promote interinstitutional coordination at all levels. In this regard, a basic goal of the modernization of the agricultural public sector should be the prevention of duplication among the agencies and entities of the agricultural sector and improvement of sectoral coordination mechanisms.

Nevertheless, the greatest challenges lie in matters related to the coordination of the agencies that participate in agriculture with those that make overall decisions which, directly or indirectly, affect the modernization of rural development. Consequently, a priority task is to promote suitable sectoral participation, at overall coordination levels, in the analysis and definition of legislative, administrative, economic and social policies, so that these will be consistent with the institutional action strategy for agriculture.

Administrative adaptation, under these terms, is a basic premise that support the development of participatory management, the implementation of broad decentralization of functions and of resource transfers, and the application of a production support and social services policy based on a greater degree of selectivity, in accordance with the type of producers that prevail in each region and community.

Efficient interinstitutional coordination in the support centers could be consolidated through the operation of one or several windows to attend producers near their work area in the fields of agrarian justice, production and productivity development and social well-being. The purpose would be to assist in reducing administrative red tape, expedite attention to the beneficiaries and achieve greater efficiency in responding to campesino demands.

C. MODERNIZATION OF THE LEGAL FRAMEWORK

In accordance with the central proposals of the modernization policy of rural development, a number of reforms, amendments and adaptations to the legal framework that regulates the rural sector need to be promoted to grant legal support to the actions of shared responsibility between the State and the producers, and give impetus to social participation.

In this context, it would be advisable to review the Law of Federal Public Administration and its related regulations in order to readapt and specify the responsibilities and functions of the agencies and entities of the agricultural public sector, to restructure its administrative composition and to link its action to the social and private sectors. The purpose of these adaptations to this instrument would also be to establish norms for the transfer of functions of the central public sector to the state and municipal governments, and to the direct producers.

The transfer process needs to take into account the establishment of norms that will make it possible to decentralize the functions toward agrarian centers, producer organizations, support centers, rural development districts, municipalities and states, in addition to the establishment of special windows to attend producers.

Within the framework of modernization of agrarian reform, greater jurisdictional autonomy of the agrarian commission and of the agrarian consultative corps is proposed, in addition to defining more streamlined and expeditious procedures for agrarian conciliation.

It is also necessary to strengthen regulatory mechanisms for social participation in the tasks of planning, programming operation and evaluation of agricultural activities. In particular, strengthening is recommended in the active and organized participation of the producers on the administrative boards of the rural development districts and the support centers to reduce discretionary management of promotion policies by the agencies of the public sector.

The legal corps of the municipality should also be consolidated in the aspects deemed advisable by the rural development promoter and not only as representative, but as executor.

Improvement of the Law of Agrarian Reform should be aimed at achieving greater precision in the recognition of individual agrarian rights to increase democratic practices in the ejidos and communities and to promote the creation of councils for marketing, credit, technical assistance and social well-being, among other matters, that will function as auxiliary bodies of the ejido commissioner's office.

D. MODERNIZATION OF PRODUCTION ACTIVITIES

Reducing structural imbalances in agriculture implies modernizing and strengthening the campesino economy as a premise for revitalizing agricultural production and productivity, encouraging the sound exploitation of resources and meeting the basic needs of rural social well-being.

In accordance with this proposal, the policy for the modernization of rural development must define guidelines for promoting the reactivation of agricultural production on the basis of sectoral priorities, the strengthening of the production apparatus and of rural marketing, capitalization and reduction of structural imbalances, the evolution of technological processes, the sound exploitation of resources and conservation of natural resources, and the regulation of foreign trade in terms that will guarantee a net surplus of foreign exchange in the agricultural balance.

Capitalization of the rural sector will only be possible to the degree that retention of the sectoral surplus is encouraged, which will be viable by modifying terms of trade with the economy as whole to benefit agriculture. Here, harmonization and direction in the management of the sector's economic policy instruments, particularly of public spending, prices, financing and tax incentives, will be of utmost importance.

At the general level, it is a question of harmonizing the direction and orientation of the macroeconomic instruments that respond to national priorities with the objectives, means and instruments of sectoral economic policy, which should emphatically favor sustained capitalization of rural areas.

As regards the external sector and without detriment to domestic priorities, export goods that provide comparative advantages and have been insufficiently exploited can play an outstanding role in rural capitalization. Thus, it would be advisable to diversify and increase exports, which would help to attenuate the adverse effects of fluctuations in the international market.

Additionally, agricultural food imports must be reduced by strengthening domestic production in accordance with market requirements. The possibility of taking advantage of progress recently made in the rationalization of the external sector, however, should not be ruled out, so that machinery and equipment imports can be used to support capitalization of the countryside at costs below those of the international market.

Implementation of the economic policy for the modernization of rural development implies the establishment of a framework of priorities aimed basically at reactivating capitalization of rural areas, with emphasis on the areas and regions that lag farthest behind economically and socially, and on rural producers with the fewest technological possibilities.

In this regard, the achievement of suitable coordination between the macroeconomic policy and the orientation of sectoral instruments will be of particular importance to eliminating possible biases against agriculture. Consequently, it is highly recommendable that the priorities established at the sectoral level be taken into account, in addition to overall national objectives, in defining the macroeconomic policy.

Thus, the criteria and guidelines of the sectoral economic policy would complement the overall nature of the macroeconomic policies and grant them the necessary specificity through full recognition of the heterogeneity of the agricultural production structure, and of its asymmetry with other sectors and with the international economy.

Another aspect to be taken into consideration refers to the unequal structure of the sectoral markets, whose behavior is differentiated, which means that sectoral instruments should respond to strict criteria of selectivity and effectiveness.

Complementarily and using the associated intersectoral bodies, programming and evaluation mechanisms could be established in the management of the sectoral policy in order to follow up on the effect that the macroeconomic policy has on the sectoral policy and thereby strengthen the frame of reference for decision-making at these two levels.

1. Public Spending

In accordance with the goals of rural capitalization, the agricultural public spending strategy should provide for greater control of budgetary resources based on the adoption of explicit criteria of austerity, discipline and shared responsibility in budget programming and implementation.

Restructuring the budget is considered the basis for modernizing the rural productive apparatus, and consequently it is indispensable to continue rationalizing current expenditures, decentralizing budgetary operations toward regional levels and rationalizing subsidies.

This process would make it possible to free resources to support sectoral priorities and capitalization without generating additional pressure on public finances. In addition to the current expenditures, some operational expense items could be rationalized by promoting the participation of the state and municipal governments, as well as producers, in technical assistance activities, training, organization, mechanization, and other areas.

In the context of shared responsibility, it would be positive to gradually transfer the operation of the agricultural water infrastructure to the producers and to implement programs for the optimization of water used for production purposes. Thus, budgetary resources could be aimed at even greater strengthening of investment expenses to be channeled toward agricultural capitalization.

Some of the outstanding priorities that investment expenditure should address are the conservation of natural resources, attention to comprehensive projects for rain-fed areas, the completion of works under way in preference to the initiation of new projects and the rehabilitation and modernization of irrigated areas.

2. Guarantee prices

The guarantee price policy is of basic importance to improving terms of trade between the rural sector and the economy as a whole, so as to favor rural capitalization and retain part of the surplus generated to benefit rural inhabitants.

Because of its social and economic implications, the guarantee price policy should simultaneously promote both production of and access to the consumption of basic grains (corn, beans, wheat and rice). In the case of other products traditionally subject to this price system, more flexible marketing and market regulation mechanisms could be sought. Thus, it must be stressed that the improvement in the terms of trade between the countryside and the city necessarily implies that guarantee prices for basic crops be established on the basis of criteria that equally benefit consumers and producers.

It is a question of finding a suitable ratio between production costs and consumer prices, so that agricultural production and productivity are encouraged and the producer has resources for adopting new technologies.

It must be recognized that heterogeneity in production costs, in the use of technologies and in the types of producers generates unequal benefits with general guarantee prices. To reduce these imbalances, dialogue and concerted agreement with the producers is proposed, in order to define mechanisms for determining prices that will provide acceptable benefits for the majority of producers and will take into consideration regional production structures and the quality and variety of goods.

3. Rural financing

Rural financing policy must take into account the actions needed to gradually transfer the functions that are currently performed by the credit institutions to the producers.

Credit policy is a key element for the concerted promotion to implement new financing packages and replace loans in kind with liquid resources, and supervised loans with deregulated loans.

For this objective, concerted agreement with the producers is essential, so that they themselves operate farm loans; the introduction of measures to recover the loans granted is also essential.

Application of preferential rates in financing implies criteria of greater selectivity to benefit low-income producers and those that produce basic grains.

In capitalizing rural areas, fixed investment loans must be reactivated for the replacement of machinery, strategic projects to diversify production and technological improvements, preferably giving support to rain-fed areas with production potential.

As regards insurance, its transfer to producers would have immediate effects if based on the degree of development reached by the associative figures, as is the case with self-insurance and mutual insurance, which could operate with an insurance company as a second-floor entity. The purpose of this transfer would be to recover the basic functions of farm insurance for protection against production risks and redistribution of costs implied in insurance.

4. Subsidy policy

It is especially recommended that the policy to subsidize agricultural production be designed with strict criteria of clarity in its use and periods of time, and with a suitable institutional scaffolding.

The basic purpose of this policy should be to motivate agricultural growth, support the production of strategic inputs, encourage industrial processing of the product, lower production costs and, at the same time, protect the purchasing power of rural consumers. That is, it is proposed that subsidies be selectively channeled into different stages of production to lower costs.

For greater precision in its influence on these items, the granting of subsidies should take into account criteria of greater selectivity and their application should be linked to specific productivity goals. In accordance with this proposal, generalized subsidies should be rationalized between production and consumption, so as not to cause greater imbalances in public finances.

5. Technological modernization

Technological modernization in rural areas is indispensable to encourage optimum mobilization of resources with production potential and efficient organization of production processes in the countryside.

The challenge to technological development consists of strengthening production activities on the basis of significant increases in productivity levels, and abandoning horizontal growth plans that imply expansion of production frontiers and the availability of large investment resources.

One of the bases for a long-term technological revolution is the incorporation of biotechnology into agrofood processes. However its development requires maximum effort on the part of the research system in view of the incipient stage of biotechnology at the present time and the lack of coordination in official efforts in this field.

The experience of the advanced countries in this field needs to be taken advantage of to develop new varieties of plants, reduce the time needed for production processes, advance toward substantial increases in yield per hectare and modernize all stages of the food chain.

Biotechnological development will make it possible to consolidate self-sufficiency in basic grains (corn, beans, wheat and rice), bolster the exportable supply of vegetables, fruits and tropical goods, and improve employment and social well-being.

Technological supply could be structured on economic and social criteria, which implies the use of areas with greater production potential and attention to the needs of producers who consume their own goods.

This task requires thorough restructuring of technological research and transfer to rural areas and the active incorporation of those directly benefitted into the processes of technological innovation. Restructuring could include the operation of a subsystem of applied research and technological education with geographical coverage that preferably reaches the state level, which would make it important for the local governments and social and private sectors of each region to participate.

Through long-term financing, research and education institutions would have the capacity to develop their own human and physical infrastructure. In connection with this idea, mechanisms could be created to stimulate investment in the system by the private sector.

6. Employment and productive employment

The strengthening of rural employment is directly linked to modernization of agricultural, forestry and aquiculture production, to the promotion of capitalization and to the development of activities complementary to primary production.

Reactivation of the production of basic grains can become a key factor in generating rural jobs, since corn and beans alone absorb nearly 50% of total farm days worked.

Rural technological development, which includes the use of biotechnology in production innovation processes, could be aimed at increasing production and jobs at the same time.

In view of the limits to agricultural endeavors, there should be promotion for the development of activities underlying the primary economy, whose employment potential is significant, as is the case with artisan work, the network of agricultural services, small rural industry and the development of aquiculture.

Additionally, support for family economic activities and the strengthening of community links would help to meet the employment needs of the poorest producers, of day workers without land and of neighbors on ejidos and in rural communities.

7. Ecological conservation

In order to form a food system that is self-sustainable in the long term, production modernization measures should consider the optimum and sound use of natural resources an essential principle and thereby prevent overexploitation and consequent harm to the nation's ecology.

An enormous ecological restoration campaign is indispensable.

To correct the poor ratio between the use capacity of agricultural land and the capacity currently used, efforts should be made to create development conditions and instruments that will make the organizations themselves progress in the comprehensive use of resources.

Within these activities, the coordinated participation of the State and producer organizations would play an important role as the most suitable form of facing the challenge to achieve full realization of production potential through comprehensive and conservationist exploitation of agriculture, livestock raising and forestry.

8. Strengthening the foreign trade sector

Foreign trade policy has been based on recognition that the participation of Mexico in the international economy is guided by major national objectives.

The preservation and consolidation of food sovereignty should be the guiding rule in agricultural foreign trade policy. This implies the need to consolidate self-sufficiency in corn, beans, wheat and rice to meet the demand of the population; to move forward in substituting imports of basic grains in which Mexico has shortfalls, and to participate actively in international markets where the country has significant comparative advantages, such as vegetables, flowers, fruit, other tropical goods, livestock and beef.

Under these considerations, progress should be made in diversifying markets for goods that have proven their external competitiveness and are produced under conditions of high productivity, since they have the best land, a wide range of infrastructure and equipment, and access to modern technology and credit.

To that end, multilateral forums such as GATT and ALADI should be taken advantage of, and concerted agreements with countries of high import potential, such as Japan and the newly industrializing countries of Southeast Asia, should be strengthened.

To reduce the vulnerability of the export sector, export lines and market orientation needs to be diversified. In this regard, activities should ensure the greatest possible stability for the sector's exports through concerted agreements that harmonize sanitation and quality standards and prevent the discretionary application of trade barriers and other protectionist measures.

To provide incentives for exports, it would be advisable to encourage producers to take advantage of international agreements, as well as marketing mechanisms, quality control standards, classification of goods, forms of presentation, packing and packaging, and information on potential markets.

9. Upgrading rural social well-being

The policy for rural social well-being must be increasingly based on criteria that will allow needs and goods and services to be identified, as well as subjects in society and economic regions that may require priority support in such matters.

This implies greater precision and direction in institutional activities, which will be viable on the basis of administrative decentralization and the establishment of a participatory democratic framework of social agents who benefit from this policy.

It is believed that strengthening the municipality and its bodies will provide the base for participatory planning that incorporates the communities expectations concerning the conception, development, implementation and supervision of measures for social well-being.

Priority should be given to support for campesino women, who are agents of participation and change in rural life, since upgrading the level of nutrition, health and education of their children will ensure sustainable social modernization in the medium and long term. Young people in rural areas, in turn, will need greater options in education, recreation and culture.

To take better advantage of scarce resources and social efforts, an approach should be developed that harmonizes the implementation of different policies to support social well-being with the need for comprehensiveness in solutions, both from the standpoint of recipients and

of contributing institutions. Furthermore, different concepts of well-being that exist in the communities and lie at the core of their ways of life and culture should be given greater respect than standardized criteria of institutional mechanisms and projects.

10. Support for critically poor groups

Care for the critically poor implies giving priority to nutrition, which is the reason that family self-sufficiency should be boosted through programs such as those for minifarms or backyard economy, which will reduce material and financial needs. In addition, support should be given to basic supplies through upgraded social marketing systems, taking advantage of the institutional marketing apparatus.

Modernization of labor law should give consideration to greater protection for rural day workers in connection with wages, job risks, and food, health and education services for seasonal migratory groups.

In the field of health, the coordination of services provided by the health sector in rural areas should be expanded substantially, taking advantage of training local midwives and traditional healers to serve as paramedical staff and using, when feasible, the resources of traditional medicine.

V. THE INTERNATIONAL FRAMEWORK OF PRODUCTION REACTIVATION. PRIORITY AREAS FOR ACTION

The international framework is the second major incentive for the strategy to reactivate production in the agricultural sector. In Mexico, agricultural and rural development plans and programs have traditionally been conceived of from a national standpoint, without including in the analysis influences of any type exerted by external variables. This omission has produced significant biases in the formulation of problems up to operational proposals, since the agricultural sector, far from actually being an isolated subsystem, is closely linked to different international trends that sometimes become major world production processes that imprint their own dynamics on national development processes.

These considerations are taken into account in this chapter, which, through the interaction of these variables, ponders the strengthening of economic and production relations between Mexico and Central and South America, since it is recognized that rural development takes on much greater dimensions in the context of regional integration.

A. INTERNATIONAL AGRICULTURAL TRADE

1. Evolution and trends in the main markets and commodities

International trade in agricultural goods has maintained slow dynamics with real prices below those observed during the Great Depression. Basically, this has been the result of the international economic crisis, the increase in world food production, the generalized adoption of protectionist measures and of policies to subsidize the exports of the industrialized countries, but, most of all, the unfavorable interaction of such policies with financial and macroeconomic policies, in addition to the notable decrease in international demand associated with the recession and with structural and indebtedness problems of the Third World. It is quite likely that international agricultural problems would have fallen even without the subsidy programs of the OECD countries, although the factors pointed out confirmed this situation (Luiselli-Vidali).

After the world food crisis at the beginning of the 1970s, there was a boom in agricultural trade encouraged basically by the corrective measures adopted by the advanced countries and by the increased demand of the developing countries and of some socialist countries that obtained greater earnings from their oil exports and/or through external indebtedness, in addition to the disturbance in the traditional patterns of consumption in other countries caused by transnational agrofood complexes, based on animal protein and vegetable oils that required greater amounts of feed grains and oilseeds. Between 1972 and 1980, the agricultural imports of the developing countries grew by more than 100% and those of the socialist countries by nearly 60%; figures that contrast with the 3% increase in these imports in the advanced countries.

Nevertheless, since the first years of the 1980s, drastic changes have occurred in this situation. The enormous agricultural production obtained on the basis of technological innovation in the great powers began to accumulate with the consequent financial costs for storage, when past

levels of trade transactions dropped. The main causes for the reduction in world demand for food were: a fall of more than 20 dollars a barrel in oil prices, deterioration in the terms of trade of most of the countries that comprised the oil market, loss in the developing countries' access to markets for their exports owing to stronger protectionism of the advanced countries, growth in the food production of different developing countries, and contraction in the domestic and import demand of most countries in order to control inflation and save foreign exchange to meet financial commitments in the case of the developing countries. The world result has been a depression in agricultural trade flows to a greater extent than in manufactured goods, which grew 12% between 1984 and 1987, while agricultural trade grew 1.5% during the same period.

WORLD FOOD IMPORTS
(Millions of metric tons)

	1981/1987	1985/86 P/
Wheat	101.30	84.90
Hard Grains	107.80	83.30
Oilseeds	36.08	34.08

P/ Preliminary

SOURCE: Foreign Agricultural Service, USDA, Washington.

It is no exaggeration to say that the world agricultural crisis goes far beyond the mere sphere of agricultural policy and is situated in the midst of macroeconomic policy itself and the production restructuring process of the world economy. Consequently, its recovery will greatly depend on the possibilities of harmonizing both levels of policy in a concerted manner at the world level, so that they promote economic growth and sustained levels of greater demand.

2. Protectionism, tariffs and technical barriers

The advanced countries, in particular, have adopted a number of neoprotectionist measures in recent years, among which non-tariff barriers (sanitation, domestic consumer taxes, and so forth) have been outstanding and have exacerbated uncertainty in the international market, which caused a notable reduction in the export prospects of the developing countries and in their earnings from this source.

In the GATT Negotiation Groups on Quantity Restrictions and Other Nontariff Measures, more than 1,200 variations have already been identified, including, particularly in relation to agriculture, posted prices, direct subsidies and soft loans for production and export, financial adjustment support for producers, payment in kind, extension and research services and the well-known discretionary application of sanitation measures.

It is widely recognized that agriculture is subject to more para-tariff barriers than manufactured goods, which, to a greater extent, come from the industrialized countries. Although the most recent estimates are based on very rough measurements, owing to the complexity of identifying the indirect effects of variables, such as the exchange rate, on agricultural trade, it may be said that the frequency with which the industrialized countries applied non-tariff barriers rose to 29.7% for agriculture in 1984, while it was only 9.4% for manufactured goods.

Most of the measures mentioned above have a financial cost that can be assumed by the State, by the taxpayers and by the consumers. The source of financing and political force of the different social agents to defend their particular interests in each country provides their authorities with a greater or smaller margin to sustain these protectionist measures.

From this standpoint, the proposal of the United States delegation to completely deregulate the world agricultural market within a maximum of ten years, apart from being intended to expand exports on the basis of its technological superiority in relation to many of its competitors, may also be explained by the need to eliminate the heavy financial burden that farm subsidies have on its fiscal deficit.

The EEC, although it has subsidies similar in size to those of the United States, receives the contribution of at least two thirds of them from its consumers, so maintaining them does not, strictly speaking, represent a burden for their public funds. Furthermore, the traditional famines that have in the past affected their people have created awareness among their inhabitants of the importance of promoting a policy aimed at food self-sufficiency, as a fundamental objective. Thus, in contrast to what happens in the United States, the pressure of the different social agents is for continuing support for the agricultural sector, even in its recent incursion as a food exporter.

The rest of the exporting countries, particularly those of the Cairns group and the Nordic countries, with relatively efficient producers and natural advantages, and with very little public financing capacity, present a lower level of subsidies and these are financed almost completely by consumers. That is why, with some reservations concerning the methodology for determining the amount of subsidies and their coverage of goods, they have no major objections to accepting the United States proposal for the complete deregulation of agricultural trade.

Japan, just as the developing countries that import food, is not opposed to the large exporters continuing to subsidize their agroexports, in view of the benefits they represent for Japan as a net food importer. However, Japan has not rejected the liberation approach and has expressed its backing for a system in which the liberalization process takes into account the sociopolitical factors in each country, particularly with regard to the food self-sufficiency of their peoples. Consequently, Japan is reluctant to do away with its high subsidies which are covered by domestic consumers and used to protect its domestic rice and soybean production from international competition.

In the developing countries that import agricultural goods, there is a paradox in the practical nonexistence of subsidies for the producer, in spite of the basic nature of agricultural activity in their national economies. Subsidies in these countries have a connotation opposite to those in the advanced countries; it is a question of transfers whose cost is assumed almost totally by the producer to benefit the end or industrial consumer. Thus, this mechanism is better classified as being "disprotectionist" for agriculture and is the principal cause of its accumulated deficiencies.

Several Latin American countries have, in the past, had intense antiagriculture biases and have had unfavorable effects on agricultural production in the long term. Thus, beyond the circumstantial benefits that the developing countries obtain through their imports at prices subsidized by the exporters, the reorientation of domestic subsidies is a tool needed to strengthen basic and/or vulnerable areas of their agricultural economy.

3. Multilateral trade negotiations

The participation of the developing countries in the reform leading to the complete liberalization of agricultural trade, as proposed by the United States, even when they would be exempt in the short term, means a loss in their sovereignty to define their rural development policy and the possibility of implementing programs to develop activities within their agricultural sectors. But, even if they do not participate, the elimination of subsidies and support for the production and export of the industrialized countries will have immediate repercussions by raising their import bills, as has, in fact, already occurred in the case of milk and more recently with some basic grains, owing to the previously mentioned crop losses at the world level.

Consequently, although the main difficulties in trading agricultural commodities are concentrated in the exporting countries, most of which are advanced nations, the developing countries, such as Mexico, cannot remain on the sidelines in negotiations, but should assume a much more active role. In this regard, one of its arguments has been that, since its rural development practices do not disrupt world trade in agricultural commodities, it has no reason to participate in the adjustment process proposed, regardless of the form it takes, except to demand compensation on the basis of the adjustment, which could result in terms of greater openness than that of its agroexports.

The unique importance of trade negotiations in the agricultural group, owing to the strategic nature of the goods it includes, both for food security and for the creation of jobs for a large part of the population in most countries, has given rise to the need to establish joint plans in the importing countries to emphasize their individual financial and development interests and, most of all, their strategic food security objectives.

Thus, the exporting countries should recognize that the structural weakness of the agricultural sector of such countries requires their governments to adopt policies that will expand their production and

domestic consumption of foodstuffs, including those that concern the development of their rural infrastructure. This implies that their agricultural policies should be respected as part of their macroeconomic policy. They have continually argued that agricultural trade negotiations cannot be conducted in isolation from their interests nor in abstract terms regarding the difference in their situation from that in the countries that have large exportable surpluses.

Mexico, as many other developing countries that import foodstuffs, maintains a position different from that of other countries which, although they are also developing countries, have comparative advantages that allow them to compete on international markets and, although they have not refused to make contributions (which may be quantified on the basis of the acceleration in the external openness reached outside of the context of their commitments to GATT), they are, in fact, opposed to indiscriminate opening up of their agricultural sector. At one of the first meetings of this group, it was stated that:

> "There are very few developing countries whose supply of resources allow them to participate in the trade game without restrictions. Most of them are confronting production conditions that are unfavorable for making agriculture a profitable and efficient activity. Nevertheless, in my country, the sector is being developed to produce foodstuffs that are needed to create jobs, income and well-being in the countryside and to attract foreign exchange to help fulfill external financial commitments."

Since it signed the protocol for its adhesion to GATT, Mexico has maintained that its basic commodities are not negotiable. Furthermore, quantitative restrictions on their import (Article XI) are indispensable to maintain minimum compliance with the "orthodox" recommendations of the country's production financing bodies.

Greater clarity in plant and animal sanitation standards has repeatedly been demanded, because of their frequent application as true barriers to the exports of the developing countries, which are sometimes technically unable to determine the veracity of sanitation deficiency claims. Mexico has also backed the demands of these countries regarding the need for greater clarity in the operation of the Generalized System of Preferences (GSP), since it is frequently directed away from its original purpose of supporting developing countries and becomes an instrument for increasing pressure on them and disrupting free trade.

Although tropical goods were dealt with long before "agricultural" goods in the GATT, related negotiations to arrive at agreements have encountered many difficulties. Even though some concessions were obtained in Montreal for the exports of the developing countries to the EEC, Japan and some European countries, these were not significant for Mexico, since its agricultural trade with these countries is minimal.

This group has been used by the advanced countries as a tool to pressure progress in other groups, a situation that was evident in the offer of concessions by the USA, contingent on the acceptance of its agricultural liberalization policy, which consequently did not materialize. An

additional barrier is unquestionably the reluctance of the importing countries to accept stable parameters and norms in the trade of these goods and their inclination to continue managing concessions and obstacles in a discretionary manner, making grading, reciprocity and supports, in the most acceptable cases, contingent on the establishment of preferential bilateral or regional agreements, as is the case with the Lomé Convention and the Caribbean Basin initiative.

Negotiations have also become complex because of the progress made in biotechnology, which is rapidly shifting the requirements for specific natural conditions for tropical goods, which exist in the developing countries and in some regions of the advanced countries (in California, Florida, Hawaii and Puerto Rico in the case of the USA). This has led the advanced countries to protect their domestic goods through seasonal tariffs and/or the discretionary use of plant sanitation measures; they have even attempted to benefit from the concessions that have been granted to traditional exporters of tropical produce because they were developing countries.

The important point to be underlined in these protectionist practices is their frequent use for reasons that go beyond trade and technical sanitation, in a strict sense. Sometimes, the application of non-tariff expedients is aimed at wielding the purchasing power of the importing country to favor countries that best fit into their economic and political interests. This situation also arises in the discretionary and discriminatory management of preference systems, which are used as tools of political and economic pressure, thereby directing them away from their original purpose of working toward the development of the poorest nations by granting their exports privileged and nonreciprocal treatment.

The initiative of the Caribbean Basin faithfully follows this scheme: it discriminates against goods of the countries that do not adjust to the demands of the USA in matters of trade liberalization, anti-drug-trafficking activities and, particularly, its current foreign policy for Central America. These same terms may be applied to the Lomé Convention that the EEC signed with its former colonies, whose trade benefits are given in exchange for its integration.

Consequently, in tropical produce negotiations, Mexico has sided with the actions of the exporting countries in fighting for: limitations on the use of trade barriers for exclusively technical and biological reasons, complete tariff reduction, elimination of the use of preferences systems for political expedience, regulation of the triangulation of exports and the standardization of quality and packaging standards for the export of tropical produce. Additionally, the Mexican delegation has requested that an eighth subgroup be included in this tropical produce group, composed of northern winter vegetables, bearing in mind that from the very outset, the Round indicated that this list of products was not exhaustive. To date, the classification of seven subgroups decided on during the 1983/1984 consultations of the GATT Trade and Development Committee persists. These are tropical beverages; spices; flowers, plants, and so forth; some oilseeds and vegetable oils; tropical fruit and nuts; tropical woods and rubber; jute and hard fibers.

4. Trade concentration with the USA

For Mexico, agricultural trade relations with the USA are becoming increasingly decisive in spite of intentions and efforts made to diversify both import and export markets, since it was recognized that the concentration of agricultural trade flows makes agroexports extremely fragile and harms their production bases.

According to USA data, Mexico's agricultural trade balance with the USA showed continuous deficits from 1981 to 1985 and did not obtain a significant surplus until 1986 and 1987. Results for 1988 will once again certainly be negative for Mexico because of the drop in its main agroexport prices, and most of all, because of the increase in its major imports: basic grains and milk, as a result of their low world production caused by droughts during the year.

TABLE 2

AGRICULTURAL TRADE BALANCE WITH THE USA
(Millions of dollars)

	1981	1982	1983	1984	1985	1986	1987
IMPORTS	2,342	1,156	1,942	1,993	1,449	1,084	1,200
EXPORTS	1,102	1,148	1,279	1,278	1,446	2,080	1,867
RESULTS	-1,240	-8	-663	-715	-3	996	667

The influence of trade relations with the USA on the trade balance of the Mexican agricultural sector is reflected in its results which show a close correlation not only in trends, but also in volumes. This may be seen by comparing Tables 2 and 3; with the exception of 1985, when there was a significant increase in basic grain purchases from Argentina, the trade balance with the USA explains up to 95% of the sector's total foreign trade balance. This comparison is only approximate since the sources for the two tables are different.

In brief, the importance of the USA as the principal supplier and purchaser of Mexican agricultural commodities has been consolidated. During the three-year period from 1964 to 1966, 49% of the sector's imports originated in the USA, 36% in Australia and New Zealand and 6% in the EEC. Currently, 76% come from the USA, 7% from Canada and almost 8% from the EEC. As regards exports, between 1964 and 1966, 56% were placed in the USA, 13% in Japan and 8% in the EEC. As mentioned before, however, nearly 85% of Mexico's agroexports are sold to the USA, 7% to the EEC and 2.7% to Japan.

In addition to this limiting trade concentration by country, trade concentration by product should be stressed. Although its structure has varied, it has not become diversified as a result. At the outset of the

1970s, principal imports were barley, beans and rice; now massive purchases of corn, wheat, sorghum, soybeans and milk are being made, which are basic foodstuffs and feed. Considering the significant volume of these imports, they indicate Mexican agriculture's weakness in meeting the growing needs of the nation's population and the continued importance that an aggressive agricultural import substitution policy would have.

Mexico's main export commodities, such as cotton, sisal, sugar, vegetables, livestock, coffee and even corn, were reduced to only coffee, vegetables, fresh fruit and livestock. The drop in agricultural exports, although largely explainable by the increase in domestic consumption stemming from population growth, fluctuations in the international market and deterioration in terms of trade, was also the result of the absence of a well-defined export development policy.

TABLE 3

AGRICULTURAL TRADE BALANCE
(Millions of dollars)

	1981	1982	1983	1984	1985	1986	1987	1988a/
EXPORTS	1,677	1,264	1,714	1,545	1,517	2,495	2,276	2,027
IMPORTS	3,587	1,396	1,863	1,848	2,094	1,444	1,562	2,316
RESULTS	-1,910	-132	-149	-303	-577	1,051	714	-289

a/ From January to October.

SOURCE: Secretariat of Agriculture and Water Resources (SARH), General Directorate of International Affairs (DGAI) - TRADE BALANCE OF THE AGRICULTURAL SECTOR BY YEAR.

In brief, continuous value transfers, decreasing support for capitalization, constraints on the prices of primary goods, exhaustion of possibilities to expand the production frontier and slow growth in applied research are the main causes of deterioration in the productivity and profitability of the agricultural sector, of its concomitant loss of growth and the contraction in its exports.

5. Conditions affecting the foreign trade strategy

Multilateral negotiations in the Uruguay Round provide Mexico with the opportunity to diversify its export and import markets, to reduce its excessive trade concentration with the USA and, thereby, to modulate the effects of the formation of a well-defined area of influence around the dominant interests of the USA, into which Mexico, just as most other Latin American countries, would be integrated in a subordinate position.

The present Round of Negotiations has taken on growing influence for developing countries such as Mexico. These countries have played only a minor role in the previous rounds, partly because the GATT was originally created as an organization to serve the industrialized countries and partly because the developing countries had concentrated on inward development models with import substitution goals. Consequently, the developing countries sought little in past negotiations and, in fact, received very little. At the present time, when they are attempting to develop their outward directed policies, their access to international markets is becoming a topic of importance to them.

The viability of the recommendations of the multilateral organizations and of the OECD countries to make a free market the axis for economic reactivation of the developing countries should take into account several factors: the establishment of international rules to correct distortions in exchange rates; the fact that the solution to the problems of agricultural surpluses and the foreign exchange needs of the developing countries, most of which are significant net importers of such commodities, cannot be solved through a free market when the theoretical principles of comparative advantage on which it is based are not applicable in actual practice; that reactivating the national economies of the developing countries requires their actually being granted special and more favorable treatment by the advanced countries, both in relation to their exports and to the production of their strategic sectors.

The participation of the Mexican agricultural sector in the world economy requires modernization of its production structure and greater integration with agroindustry and the other sectors of the nation's economy. This change will only be feasible if anti-agriculture biases stemming from policies aimed at keeping producer prices low to maintain large subsidies for urban consumption are eliminated, that is, if the traditional transfers from the countryside to the city, implicit in the previous development model, are done away with.

Mexico's participation in international agricultural trade, marked by its position as a strong importer of cereals, oilseeds and dairy products, and an exporter of livestock, tropical produce and winter vegetables, must be based on a production-export strategy of the agricultural sector defined on the basis of the necessary balance between goals of self-sufficiency and the generation of foreign exchange, the surmounting of anti-agricultural biases, and intersectoral and intrasectoral coordination, that is, a broad restructuring of agricultural development that will incorporate internal and external conditioning factors to promote the balanced participation of the agricultural sector in the world economy.

To that end, there is a need to form a national generic framework of policies and programs that will work together in coordinated support to solve the serious problems that hinder foreign trade in an international context characterized by protectionism, shrinking markets, strong competition, falling prices and uncertainty.

This strategy should not only include efforts to promote non-oil exports in order to transform the Mexico's export structure, but, at the same

time, should promote import substitution by adopting flexible guidelines that will address both aspects more efficiently and will place greater emphasis on strengthening our relations abroad, so as to seek new markets, accelerate regional integration, and obtain greater contributions in the form of technology, administration, finances, training and, most of all, marketing through international cooperation.

Progress has already been made toward realizing the potential of the agricultural sector to increase the volume and value of its exports through implementation of different agroexport development and promotion measures (I-1987), whose objectives are to develop exports, expand and consolidate its exportable supply, diversify export markets and commodities and contribute to increases in the inflow of foreign exchange.

To that end, 67 priority export products of agricultural, livestock, forestry and agroindustrial origin have been identified and initial trade and financing infrastructure needs have been specified to consolidate an exportable supply that is competitive in terms of price, quality and timeliness. The goods selected, which in our opinion continue being of priority and should be considered in any agroexport development program, are:

Produce with programs and/or projects under way. Strawberries, prickly pears, lime essence oil, sesame oil, tomato paste, concentrated orange juice, husked sesame and frozen strawberries.

Produce with quantified demand and immediate requirements. Fresh broccoli, frozen broccoli, bananas, fresh pineapple, chayote, carrots, coconut, chick peas, cauliflower, sesame seeds, pineapple juice, natural orange juice, pineapple in syrup, canned asparagus and lime peel.

Produce with potential in the medium term. Oranges, limes, asparagus, grapefruit, vanilla, amaranth, oregano, lime juice, raisins, grapefruit and orange sections.

To expand the possibilities of trading these commodities on traditional and new foreign markets, significant coordination of Mexico's financial institutions was achieved in order to define lines of credit that could be used to support agroexports. This coordination allowed criteria and operations to be harmonized so that sufficient and timely credit would flow to producers and exporters, covering all the stages of the activity: equipment, working capital, a system of guarantees and credit insurance, facilities in the use of foreign exchange, and short-term and exchange risk mechanisms.

In the Program referred to actions are also proposed to upgrade the organization of the transport system for exporting agricultural, forestry and agroindustrial commodities, and to improve the quality of agroexport technical assistance in matters such as producer organization, production, fertilizer and pesticide use, price and market information, containers and packaging, and better collection and storage systems with techniques appropriate to each commodity.

Different promotions, facilities, incentives and other measures are incorporated, harvest cycles are analyzed and mechanisms have been designed to systematically and continually promote such commodities abroad in order to facilitate their being placed on international markets.

At the present stage, progress should be made in reaching agreements among the public, private and social sectors, so that the measures in this program may be implemented immediately; through agreement between official institutions and producers-exporters, government support commitments for each project should be established, in addition to export goals to which the producers commit themselves and mechanisms and procedures that can be used to reach acceptable competitiveness abroad.

The activities to be agreed on cover aspects such as the establishment of mechanisms for quality control and market conditions, foreign promotion mechanisms under joint programming and contributions from each of the sectors, the distribution of functions and powers for each of the participating institutions within its area of responsibility and the possibility of foreign technical assistance in some of the projects.

Development of the export potential in agroindustries is also important. During the 1965-1980 period, constant growth in the Mexican domestic market attracted and increased the establishment of a food industry strongly penetrated by transnational companies, which, in turn, brought about distortions in the agrofood segment because its growth was not coordinated within the framework of national development.

Recent studies show that agroindustrial exports are concentrated in only 6.3% of the companies. These few companies possess the most advanced technology and are most integrated with primary activities. In contrast to this small core, the majority of the establishments represent 70% of the total and contribute only 25% of agroindustrial production, which is practically all channeled into the domestic market. Although the remaining 20.8% of total establishments controls 60% of agroindustrial production, its share of exports is equivalent to only 45% of the total.

In the first segment, the companies are operating at practically full production capacity, which means that expanding their export coverage would require large investments; in the second segment, such an expansion program is practically impossible to attempt, so the third segment alone presents major possibilities for expanding exports, without neglecting the domestic market.

In this foreign trade policy, efforts to consolidate food sovereignty are not considered to be at odds with efforts to develop agroexports; what is more, they are considered complementary, but subject to different guidelines for support and management.

In brief, the strategy is intended to make national consumption goals compatible with the generation of foreign exchange, to rationalize effective protection to develop the expansion and efficiency of domestic production, to program the potential exportable supply so that it coincides with external demands under the most favorable conditions and to modernize the agricultural sector.

6. Mexico and intraregional trade.

The expansion and diversification of Mexican agroexports should not overlook possibilities for the economic and trade integration of Latin America, and particularly with Argentina, Brazil and some Central American countries, which of course would also involve improving Mexican imports from these countries. Obviously, this process does not imply isolation of the other countries of the world, in view of the technological and financial deficiencies of the region, but falls within a strategy of complementarity of the region's natural and production resources within the previously mentioned framework of "controlled liberalism," which might be more aptly called "concerted liberalism."

Within a plan in which the possibilities for Latin America, and not only Mexico, to expand its foreign trade and improve its terms of trade are also limited by its growing concentration in the North American market, an increase in regional trade of food and agricultural commodities is becoming a priority need for the development of the agricultural sector. The economic complementarity of our countries in this sector is essential to reactivate economic activity as a whole, on the basis of its own dynamics that will combine comparative advantages and consumption models that are compatible with our specific needs.

The strengthening of foreign trade relations should grant special priority to progress that can be achieved in the regional integration of Latin America, particularly in its agricultural trade, which is practically null at the present time, by overcoming natural or man-made obstacles through the search for specific cooperation and integration projects.

Regional cooperation also provides spaces that need to be reinforced through internal actions to modernize their production processes, so that greater efficiency can be attained in meeting domestic food demands, while expanding participation in foreign markets. However, it should be noted that the policies of each country, even though they converge toward regional integration and cooperation, will have to be defined taking into account the specific features adopted in each nation. Some central points for the definition and basic management of a common agricultural development strategy of the countries of the region would be:

- Recognition that the possibilities for growth and reactivation of the agricultural sector lie, to a great extent, in the capacity of each country to develop its foreign agricultural and food trade.

- That this recognition implies adapting food self-sufficiency policies to a wider framework of external interaction which, defined briefly, means adopting a kind of "controlled or concerted liberalism," which would be equivalent to complementing the goals of self-sufficiency with the potential that regional cooperation offers, instead of isolated efforts on the part of each country.

- That on these bases, the principle of national and regional food sovereignty takes on a leading role, because it implies making use of sovereign decision-making capacity to determine the degree of self-

sufficiency to be reached and in which foodstuffs and through what foreign trade, bearing in mind economic and social criteria.

- Finally, consideration should be given to the social nature of the food problem. This implies that the strategies be defined along two lines: as strategies to modernize production and, at the same time, as strategies to bolster campesino earnings.

It should not be forgotten that in the developing countries meeting the domestic demand actually continues to be a basic factor in directing the sector's productive reactivation, which does not mean that agroexports should be underestimated as a dominant guideline for the changes to be made.

The projects that have been identified to develop Mexico's agricultural foreign trade strategy provide a framework within which different trade cooperation efforts with the countries of the Latin American region could be initiated. The integrated expression of this set of projects ranges from the establishment of an information system on markets and trade opportunities, the incorporation of nontraditional trade mechanisms and the establishment of multinational enterprise up to the implementation of planting-export programs to coordinate production in the countries.

B. INTERNATIONAL COOPERATION AND TECHNOLOGICAL DEVELOPMENT

Reactivation of the agricultural sector in Latin America, aimed at encouraging the well-being of rural communities as a central goal, is also confronting serious limitations imposed by the low level of technological development attained in the region in the field of developing basic grain production, as a result of having directed it toward traditional export crops and crops of high economic density, and of budgetary and financial constraints that are now also affecting research institutions of the Latin American countries with the greatest difficulty in meeting priority needs of well-being, nutrition, employment and rural income, as an axis of reactivation.

Practically no one doubts that the evolution of these factors, as a whole, will have greater possibilities of success if joint comprehensive action expands among the countries as a clear expression of the will to move forward toward Latin American integration.

By taking advantage of the productive potential and the mobilization of economic, scientific and technological resources through bilateral and multilateral cooperation, important assistance can be provided in achieving the priority objectives of food self-sufficiency, rural employment and income, production and productivity and rural social well-being.

The magnitude of the problems implied in returning to the path of agricultural development makes it necessary to consolidate and expand regional international cooperation activities as a strategic factor in confronting the challenges that cannot be solved by the countries individually without duplicating efforts. The similarity of conditions among the cooperating countries of the continent offers the possibility of

sharing common activities of mutual and collective benefit. Moreover, it allows for the exchange and transfer of human, material and technical resources with a high degree of compatibility with the immanent characteristics of each country.

Joint action by the countries of the region increases external negotiating capacity, while it generates a larger market and allows comparative advantages to be developed within the region, which will lead to increased scales of production and profitability for investment projects that would not be feasible if undertaken individually.

It is a fact that joint initiatives to achieve greater cooperation among the countries increase the viability of agricultural reactivation and the development of the economies of the Latin American region, as will be seen further on. The present situation poses the essential need to undertake joint activities in the region and to strengthen the integration process. There is a consensus that only through regional measures will it be possible to confront the challenge of agricultural development in an increasingly interdependent, open, competitive and rapidly changing world.

1. Mexico and international cooperation

Concerted international activities are the best alternative for links abroad in view of the confrontation between countries. Mexico, in strict compliance with the basic principles of its foreign policy - self-determination, nonintervention and legal equality among nations - has chosen the road of international cooperation, incorporating it as a platform in its strategic guidelines to promote domestic development of the agricultural and forestry sector, and further these bases in the international community.

International cooperation, particularly at the regional level, provides important complementary support for the national efforts that the country has been making to develop the agriculture and forestry, but suitable planning through the establishment of cooperation priorities and timely attention to needs is required to take full advantage of cooperation potential. This may become one of the bridges from a decade of minimum economic growth, huge financial imbalances and generalized downward prices for raw materials to a stage of reactivation where the agricultural and forestry sector is a dynamic axis in the process of accumulation through simultaneous attention to domestic consumption and exports.

Mexico's tradition in international cooperation already dates back many years. Its concerted actions, particularly with the countries of Latin America, have addressed both Mexico's real operational capacity to supply technology, and the needs that must be met to develop the agricultural sector, so that complementary benefits may be gained through scientific and technical exchange. Mexico has also actively participated in reaching agreements of common interest with different countries and particularly with those of the region.

Among the most outstanding contributions to the international community, note should be made of Mexico's help in mitigating the problem of hunger through the development and transfer of smut-resistant wheat to more than

40 countries. Furthermore, because of the great genetic diversity of plants and animals that exist in the country, it has contributed to a large amount of species and varieties, including especially: potatoes, corn, cotton, tomatoes, different chiles, pine trees, cacti, mezquite, some acacias and different multiple-use legumes such as gourds.

As a recipient of cooperation, Mexico has obtained important benefits. From a sample of nearly 300 international agreements and conventions in force today, it should be noted that more than one third benefit the agricultural sector, followed in order of importance by the livestock sector and plant and animal sanitation.

Of all the existing projects, half include activities for the exchange, transfer and dissemination of information; in 29, the goal is to exchange experts and, in 19, the exchange of inputs and genetic material is considered. The education and training of human resources is the objective sought in 36 of the existing projects and 15 cooperation activities are registered to support joint scientific and technological research projects, in addition to 16 through which different technical advisory services are received.

One of the most important regional projects being negotiated is the establishment of an animal germplasm bank in Mexico.

In spite of the benefits that Mexico has received through different international cooperation activities, just as the nations with which it has entered into agreements and conventions have benefitted, a wide range of problems could be listed and must be faced and surmounted in order to take full advantage of the benefits of technical, scientific and technological exchange, as well as the exchange of human and material resources to support the development of the agricultural and forestry sector.

The opportunities and advantages of international cooperation have not been fully tapped, owing to the insufficiency of both financial and organizational mechanisms and instruments through which exchange activities are channeled. This insufficiency may be noted not only in Mexico, but in the entire Latin American area, where, for example, no country has a system for planning, budgeting and programming international cooperation activities, which is the reason that the participation of divisions in charge of such activities within ministries of foreign affairs or agriculture alone is inadequate.

In the case of North-South cooperation, there is partial knowledge of the areas in which agreements may be established for receiving technology, specifically in the fields in which Mexico has structural shortcomings. Additionally, the agreements and conventions established by the countries demonstrate the will to undertake concerted action. Nonetheless, when the mechanisms established to achieve such an objective are ineffective and lack workability, cooperation activities only partially fulfill the scope projected.

It is clear that numerous cooperation activities have been established in Mexico through agreements, conventions, joint commissions and diplomatic

channels, but it is notable that most of these instruments have concentrated exclusively on the mere exchange of information. Activities for technical assistance, trade, the exchange of experts, education and training of human resources and the exchange of inputs, genetic material and/or products have not been fully developed. Scientific and technological research projects and joint investment projects have not been established through cooperation. This suggests that exchange activities have not been fully comprehensive.

International cooperation agreements established by Mexico have faced situations in which the commitments assumed have surpassed the capacity to fulfill them, mainly because of insufficient resources.

Another situation that warrants attention is the excessive concentration of certain regions, institutions and national organizations as actors in donating, receiving or exchanging reciprocal cooperation. Even though international cooperation at the governmental level has achieved significant effects, the meager participation of non-governmental actors - the private and social sector - and particularly organizations of rural producers and industries, in these activities should be pointed out.

In the specific case of scientific and technological research projects, lack of participation on the part of non-governmental agents and the concentration in public bodies affects the development of links between the research institutions and the needs of the agricultural productive apparatus, as well as the transfer of knowledge and the training of producers.

2. Principal guidelines for international cooperation

The operational strategy for international cooperation should continue being carried out through interrelations at bilateral and multilateral levels, so that the participation of the organizations and countries with which actions are concerted may take place in a coordinated manner revolving around work areas, goals and priorities. The purpose is to unify within a comprehensive structure the activities and strategies carried out at the different levels of international cooperation. To that end, it is essential to harmonize or at least prevent contradiction between bilateral relations established with advanced countries and relations involving Latin American cooperation.

Thus, in referring to bilateral relations with the different regions of the continent, North America cannot be left out, because, as a geographical neighbor with a high degree of development, it is of vital technological, commercial and economic importance to the sector.

The large number of collaboration activities carried out with this geographical area have taken place within the framework of an innovative strategy consisting of ongoing dialogue between high-level agricultural officials and technicians, on the one hand, and of the strengthening of relations with different states that comprise the United States, thereby attenuating federal relations somewhat, on the other.

Within international cooperation structures, it is important to strengthen the participation of the developing countries in multilateral forums with positions of consensus to reverse the trend toward predominance of the interests of the advanced countries.

3. Scientific and technical cooperation with Latin America

There is great potential for cooperation in technological generation, adaptation, assimilation and dissemination, to modernize and increase productivity in the agricultural and forestry sector. Such cooperation expands the possibility of the sector participating in and contributing to overall economic reactivation, not only by generating greater value added, but by participating as an exporter.

To strengthen the technological competitiveness of the countries of the region and to incorporate technical progress into the agricultural sector, cooperative research programs should be reinforced between participating countries and institutions, placing special emphasis on stronger links between research centers and the sector.

The countries of Latin America cannot and should not remain on the sidelines of technological progress, watching their current positions and capabilities deteriorate irreparably. At the same time, the resources required for technological development are, on many occasions, greater than a specific country can raise. Consequently regional and/or subregional agreements and conventions for the shared use of resources to conduct joint research and establish multinational companies to operate on a regional scale are viable alternatives.

Through shared and joint research on common problems, per capita costs can be reduced and the benefits of research can be extended, thereby attaining better allocation of resources. Support needs to be given to network efforts and joint work that involves priorities common to the region, within a framework of overall planning that will rationalize partial allocations of resources and efforts.

Technology is increasingly implicit in different inputs of industrial origin, such as seeds, agrochemicals, machinery and implements. Thus, the viability of technical change can also be supported through effective, timely and accessible availability of such elements.

Traditionally, technological efforts have concentrated primarily on unincorporated technologies, such as agronomy and management practices. However, the technological performance of the countries of the region depends to a great extent on the domestic availability and advantageous conditions of a supply of appropriate inputs, which makes it necessary to develop regional programs to cover this deficiency. For that purpose, international technological follow-up and evaluation systems can be established for inputs, so that opportunities strategic to the region may be identified. This could be done on the basis of programs in which universities and research institutes would collaborate.

A key factor in scientific and technological cooperation in the region is having specific strategies for the small producer. Technical change

encouraged among small-scale farmers depends not so much on the generation of technology in isolation, but rather on joint efforts among producers, researchers and extension workers to overcome the technical restrictions identified, bearing in mind limitations concerning the availability of resources.

To expand the sphere of technological action with small-scale farmers, the countries should increase specific efforts aimed at such farmers through research on properties and production systems in which they participate together with technological generation and transfer agencies in association with producers; they should also develop a follow-up and monitoring service on world technological supply appropriate to the small-scale producer and feed back into the technological system, as a whole, through consolidation of results, so that not only appropriate, but also successful technological innovations can be coordinated.

The success of the strategy depends on concentrating the resources available in the areas of greatest priority and, also, on encouraging the participation of other actors, particularly the private sector. Appropriate action in this field implies developing policies and instruments in the countries and at the regional level that will enable the private sector to gain and/or reserve resources from its activity to be used for technological generation, adaptation and transfer. Its success also depends on developing policies, mechanisms and standards that will facilitate and encourage bilateral and multilateral efforts to expand technological development in priority areas.

Furthermore, special action needs to be taken to support and assist the countries in formulating policies and instruments that will better institutionalize, regulate and coordinate agricultural technological action on the part of the State, in order to ensure greater effectiveness, efficiency and State contribution to the social and development objectives of the country. Some factors to be considered would be: funding for the research and transfer of agricultural technology; trade and technology transfer and its components; technological property and incentives and regulation for the exploitation of new technology; the establishment of technological relations between the private and public sector; institutional organization of the role of agricultural technology; and agricultural technological policy in relation to more general agricultural, economic, scientific, technological and international trade policies.

In principle, scientific and technological development must be given the priority needed, so that funds earmarked for this field do not represent a dispensable expenditure, but rather a homogeneous and urgent response to reverse the adverse effects of the economic crisis.

In this context, policies for technology transfer, foreign investment, patents and royalties should reflect coordinated and consistent efforts that will ensure the adaptation and assimilation of the technology in our countries and lay the groundwork for improving negotiating terms that will strengthen the region's capacity to face the dynamics of transnationalization and monopoly on technological knowledge.

To make use of the comparative advantages of the countries of the region concerning research infrastructure, underscoring the need to consider the spectrum of ecosystems in the production zones throughout the region, encouragement should be given to specialization by agroindustrial system through regional technological research centers associated with production that will cover stages including study, experimentation and scale of industry, and will take into account empirical knowledge and practical progress that the production sector itself generates at the plant level.

A specific strategy line also proposed is to define a basic universe of agroindustrial activities for scientific and technological cooperation in the field of products, processes and equipment, based on a methodology common to all the countries of the region.

As regards trade, the countries of the region should adopt classification norms that will standardize the quality and appearance of agroindustrial commodities, in order to form a sole supply when feasible and encourage intraregional trade in commodities of uniform quality and homogeneous appearance.

In the field of technical assistance, there is a need to promote association mechanisms among companies in the same line with different degrees of development in the different countries of the area, so that the most advanced provide technical support and training for associated companies.

Finally, the design of this strategy and its implementation will require the establishment of a Latin American and Caribbean forum in which the nations it comprises would assume the commitment to provide consultancy services concerning technology import regulations, with a view to achieving complementarity and a proper balance between technology imports and the local generation of technologies, which would establish the bases for firm scientific and technological development of the region aimed at redefining our economic position at the world level.

4. Strategic guidelines for Mexico's participation in international cooperation

International cooperation as a tool for supporting and complementing agricultural and forestry development should take place within the framework of the general goals of comprehensive rural development and, on that basis, should respond to a defined scheme of priorities regarding scientific and technological work to be done.

In general, the orientation of this tool can be regulated under the search for the following objectives:

- Safeguard national food sovereignty.
- Support domestic efforts to increase agricultural and forestry production and productivity, in addition to rural employment and income through efficient links with the international community.
- Achieve a greater degree of technological self-determination.

- Create new cooperation channels and models that will work toward comprehensive rural development.

- Insert cooperation efforts into the framework of domestic development policy and foreign policy principles.

Particular strategies should focus on achieving suitable participation of the Mexican agricultural and forestry sector on the international scenario, which means reducing the lack of coordination, dependency and weakness that now characterize it. This will require:

a. **Diversifying and strengthening international cooperation relations**

- Intensify South-South cooperation, granting preference to countries and/or agreements through which reciprocal benefits are obtained.

- Support integration and complementarity efforts in Latin America, especially in relation to the Plan of Joint Action for Agricultural Reactivation.

- Continue diversifying North-South cooperation agreements, particularly with the EEC, the CMEA and the Pacific Basin, to receive cooperation in strategic areas.

- Interconnect different bilateral and multilateral cooperation schemes more efficiently.

In the Latin American area, the agricultural reactivation and development strategy can gain significant support through the strengthening of international cooperation. It should be based on recognition that agricultural reactivation and development is not an isolated responsibility and cannot be fully achieved without the broad participation of countries in giving validity to the goal of promoting agriculture as an agent to put new life into the economy.

North-South cooperation should be the result of suitable negotiation between the contracting countries and should always be established on the basis of national agricultural and forestry priorities. The imposition of burdensome, contrary or simply unsuitable conditions in relation to comprehensive rural development objectives should be avoided in these agreements. Although the developing countries are basically recipients of cooperation in these types of agreements, the acceptance of projects or conventions should be the result of careful selection, in accordance with national priorities.

b. **Modernizing and readapting domestic and foreign mechanisms for cooperation, which may be achieved through the following measures:**

- Increase coordination and agreement among both governmental and non-governmental actors, and particularly rural producers, in accordance with basic cooperation goals.

- Incorporate technology trade operations into the sphere of regional cooperation.

- Decentralize and expand the number of cooperating agencies and institutions in the country.

- Improve instruments, make mechanisms more expeditious and increase the dissemination, negotiation and signing of cooperation agreements.

- Direct bilateral and multilateral cooperation agreement activities in accordance with agricultural and forestry objectives.

- Achieve suitable balance between receiving and providing cooperation, always seeking the inclusion of cooperation in both directions.

Cooperation mechanisms are the operational support of the agricultural reactivation strategy at the regional level, since they are limiting factors in the actual processes for analysis, consultancy services and decision-making, both in defining and in implementing and adjusting national policies for the sector. Cooperation mechanisms are considered coordinated sets of guidance activities in which key actors of different countries interact to work toward making the desired results feasible in the time required.

At the domestic level, the participation of rural producers as active subjects, and their needs and requirements as the fundamental targets of rural development, can constitute the starting point and fundamental base for concerted action. To that end, there is a need to readapt and create mechanisms that will ensure more direct participation of producers in their definition and development.

Traditional forms of international cooperation should give way to new forms of true consensus through the identification and negotiation of conflicts, the reaching of agreements and the fulfillment of commitments among numerous public, private and social actors, and thereby develop the necessary conditions for concerted agreement. The effectiveness of such consensus necessarily requires that its bases be previously negotiated.

New mechanisms need to be designed to allow the benefits of joint action to be taken advantage of in numerous key areas for agricultural and agroindustrial development (domestic and foreign marketing, technological development, investment, and so forth). Moreover, further integration of agriculture will certainly require greater coordination of national policies.

c. **Increasing support mechanisms to achieve regional food security through:**

- Agreement on activities to complement the agricultural supply of Latin America and the Caribbean.

- Establishment of regional mechanisms for information on surpluses, deficits and prices.

- Agreement on medium and long-term marketing contracts between countries and/or groups of countries in the region.

Regional food security implies not only strong stimulation of the national production of goods to meet precisely minimum nutritional requirements, but also the explicit support for other countries which, owing to their conditions, cannot fully ensure access to food by the most vulnerable groups of the population, marginalized groups and poor campesinos. In this regard, cooperation can play a strategic role through agreements on measures to complement the agricultural supply and on information and marketing mechanisms for commodities.

In this context, measures should be taken to strengthen food security programs that are already under way in the region and have the support of the countries (Regional Food Security Program, CADESCA, the World Food Program and other bilateral programs). Attention provided in this area should be comprehensive from the standpoint of nutrition, production, economic stimulation policies, information systems and proper distribution of the benefits of productive growth. This area offers significant impetus for agricultural reactivation if it is taken into account that the stimulus to increase demand would involve the participation of small and medium-scale producers.

d. **Meeting the requirements to support comprehensive rural development, in accordance with the following objectives:**

- Achieving self-sufficiency in staple grains to conserve food sovereignty.

- Increasing rural employment and income.

- Upgrading production and productivity.

- Expanding the participation of producer organizations.

- Ensuring social well-being.

The definition, implementation and adjustment of international cooperation strategies and policies should be coordinated with unity and continuity, and should also be comprehensively consistent with national agriculture policies, which implies achieving suitable links between national objectives and cooperation goals.

e. **Conducting comprehensive international technical cooperation activities, which will require:**

- Including the exchange and dissemination of information in more complex forms of concerted agreement.

- Strengthening the exchange of experts and/or technicians.

- Reinforcing the education and training of human resources.

- Developing greater exchange of strategic inputs, genetic material and/or products.

- Supporting joint projects.

International technical cooperation activities should, as a general rule, seek the greatest possible degree of integration in the contents adopted, so as to take full advantage of complementary support for the economic and social development of the rural sector. This means that the concerted agreements between countries and with multilateral agencies should cover more than one technical cooperation component, that is, they should encourage a greater degree of complexity and complementarity and, consequently, a greater degree of integration.

Although the exchange and dissemination of information among the countries and/or entities is the least expensive form of cooperation, it should be the point of departure for more ambitious activities and not the point of arrival. Furthermore, the exchange of high-level exports and/or technicians in priority areas strengthens the productive capacity of the sector in particular and the national science and technology system in general.

The exchange of human resources is one of the most direct and effective means of transferring scientific and technological knowledge and, most important, at a very low cost, if compared to the expense of commercial technology transfer.

Reinforcement of education and training for human resources makes possible the expansion and consolidation of the human resources infrastructure in areas in which the countries have deficiencies in training (receiving) or where they have ample experience for training (donating). The provisions of fellowships for this purpose, both at the regional level and through North-South cooperation warrants special mention.

The exchange of inputs, strategies, genetic material and/or products is also a form of technological exchange. Mexico's experience has been favorable in this type of activities, although it has not been fully exploited. With open opportunities, but also veiled threats, resulting from biotechnical innovations, this cooperation component takes on greater importance, especially in Latin America and in the South-South direction.

One of the best expressions of true integration among countries are the joint projects in which the contribution of resources takes place in an equitable manner, just as the distribution of potential benefits. Such integration has been implemented to a very small extent in Latin America although opportunities are there waiting to be exploited. The opportunity offered by the agricultural reactivation programs can allow for greater use of this vital component of regional cooperation.

f. **Supporting and complementing national efforts aimed at the scientific and technological development of the sector**

- Increase the technological absorption and adaptation capacity of production units.

- Guide and coordinate scientific and technological exchange in accordance with the priorities established for comprehensive rural development.

- Support the development of technological capacity in public and private research bodies and institutions.

- Guide the development of joint comprehensive research projects (technological packages).

- Strengthen the links between entities that generate technology and user production units.

To increase the productivity and competitiveness of the agricultural sector and particularly of small-scale farmers, it is important to reinforce capacity to absorb, develop and use technology. It is proposed that international cooperation strengthen national technological capacity, develop reciprocal cooperation as a priority strategy for the countries of the region, and promote new capacities and orientations.

International cooperation in technology is of vital importance to the degree that the current comparative advantages of the country could disappear in the medium term. The sharp drop in international sugar prices below production costs resulting from the drop off in demand caused by the use of substitutes is an example of what could happen to some traditional export commodities in the future.

Our response capacity may lie in suitable insertion of the new international division, together with the technological revolution under way. Otherwise, Mexico's loss of markets and capacity to confront the challenges of rural development may result in a reality that falls short of our objectives.

Now it is no longer a question of reactivating agricultural development and developing our traditional exports, but rather of preparing for their transformation on the basis of the incorporation of technological progress through mechanisms adapted to the realities of rural development.

In any case, the invasion of biotechnology is an irreversible fact not only in our country but, in the medium term, throughout the Latin American region. Efforts can therefore be made to prevent the gap from widening, insofar as possible, through integrated international cooperation.

Faced with the events that have occurred in international agricultural markets, it is imperative for Mexico to strengthen and

complement its scientific and technological capacity in order to increase productivity and employment and, at the same time, strengthen its competitive position on international markets.

5. The implementation of activities

Once strategic objectives have been established and priority areas have been identified, both for receiving and providing cooperation, it is important to indicate the instruments considered necessary to carry out such cooperation.

a. **Planning**

To tap all cooperation potential, it is advisable to establish a specific national planning, programming, follow-up and evaluation system for the activities agreed upon by Mexico and the international community of nations. This system should serve two purposes. On the one hand, it should continually identify priorities and evaluate and select programs and projects; on the other, it should encourage the participation of the main actors involved.

At a more specific level, it is proposed that a specific regional plan be drawn up for the development of biotechnology, basically set up through agreement with similar developing countries - Argentina and Brazil - but it should be produced by all agents participating in technological creation and development: rural producers, businessmen, research centers and governmental bodies linked to this technological area. The specific research areas on which progress could be made are those mentioned in the previous section.

b. **Financing**

To provide financial support for technological generation, adaptation and innovation, the creation of subregional bodies for financing technological development may be proposed.

Mexico has experience in this regard, particularly in the industrial area, but also in the case of the agricultural and forestry sector, where it has mechanisms for the financial support of technological development within the Trusts Instituted in Relation to Agriculture (FIRA).

If this initiative is approved, however, careful consideration should be given to general policies for granting credit, since the traditional criteria used by financial funds seldom assume that technological development is a high risk activity and, consequently, traditional guarantee systems present more obstacles than support. Shared risk programs could be a starting point for this purpose.

C. EXTERNAL FINANCING TO COMPLEMENT AGRICULTURAL DEVELOPMENT PLANS AND PROGRAMS

1. General trends and problems

Since the 1950s, external financing has played an important role in the economic growth of Latin America, although it was during the 1960s and 1970s when the growth in external financing was quite rapid.

During the period from 1970 to 1981, the positive balance in the balance-of-payments capital account in the countries of the region was greater than interest payments on the foreign debt and the remittal of foreign investment profits. During these years, Latin America received significant net capital transfers, which continued and reached their peak in 1981, enabling the region to maintain a relatively high growth rate up to 1980.

Nevertheless, prevailing conditions in the world economy at the outset of the 1980s, among other factors, implied serious deterioration in the region's terms of trade and extraordinary growth in the foreign debt, while high nominal and real interest rates prevailed in international financial markets and continued during the first half of the 1980s. In this context, as of 1982, Latin America became a great exporter of net capital, while its economic development capacity deteriorated seriously.

The net flow of loans to the region has fallen drastically since 1982, while the payment of debt interests and the remittal of foreign investment profits have remained at very high levels. The result of this combination of factors has been that the net outflow of resources during the period from 1983 to 1987 was comparable, in nominal terms, to the flow of income during the period from 1974 to 1981.

Even though Latin America has had a net transfer of resources outside of the region in recent years, its debt has expanded, principally because of frequent renegotiations that have allowed interests to be capitalized. Consequently, the debt has increased while the capital account has dropped to extremely low levels.

These phenomena, as a whole, have brought about suspension in the development of most debtor countries, a trend that may be noted in examining their GDP, consumption and per capital growth rates,

The net flow of long-term external financial resources, defined as the disbursement of loans for one or more years, guaranteed by the governments, plus direct foreign investment, increased rapidly during the 1970s, so that in 1981, it increased 568%. During this period of time, official financing only increased 67%, while private financing grew 843%.

The differences in growth rates between official and private financing notably changed the composition and conditions of financing. Thus, official financing, which represented 235% of the total in 1970, fell to 8% in 1978, although estimates indicate that it grew to 48% in 1984. The fall and subsequent recovery of official financing was accompanied by a movement in the opposite direction in the flow of private resources.

Changes in the composition of financing sources and in world capital market terms have substantially modified the costs of external financing received by Latin America.

Nominal interest rates on development loans increased significantly between 1970 and 1982, almost doubling during the period. Nevertheless, considering the increase in the world inflation rate, the real rate did not increase to the same extent. In fact, the real rate on development loans was negative or nearly zero during most of that period of time. Estimated implicit real rates on the total debt fluctuated between -2.5% and 2% between 1970 and 1979.

In the 1970s, the cost of external financing was very low, which significantly stimulated the demand for external credit. In spite of drops in real interest rates, external financing terms began to show disturbing characteristics during that decade. The average grace periods for development loans fell from six years in 1970 to five years in 1979; while the average amortization periods dropped from 19 years to less than 14 years during the same period of time.

The terms and cost of external financing worsened precisely when the economic situation of the region began to weaken. Thus, in 1980, the total real interest rate on the debt disbursed increase to unprecedented levels between 5% and 7%, where they remained until 1984. The grace periods and time terms of development loans stopped deteriorating between 1979 and 1982, but both worsened in 1983. However, in 1984, the interest rate dropped slightly and grace and maturation periods tended to expand in comparison to average financial terms for loans in 1983. Preliminary data indicate that the improvement continued into 1985 and early 1986, since loans presented more favorable terms, reflecting an additional drop in average interest rates and moderate expansion in grace and maturation periods.

In spite of this relative improvement, financial flows to the developing countries remained insufficient to contribute significantly to renewing economic growth and development in the member countries.

Three years after the Baker Plan was launched and on the threshold of the Brady Plan, the results in the progress made in solving the external debt problem are ambivalent. While the stability of the international financing system has been maintained and the debtor countries have, in general terms, met their debt servicing commitments, in most cases, economic stagnation has continued and the heavy burdens of debt servicing have persisted or become worse; this has made it practically impossible to substantially improve the credit solvency indicators of these countries.

Upon analyzing the causes of the virtual paralysis in solving the debt problem, it may be seen that policy reform by the debtor countries has been extensive, but has not produced the results expected in terms of economic adjustment. The other conditions envisaged in the strategy (suitable financing to support adjustment and a favorable world economic climate), have, in fact, not been forthcoming.

In international financing organizations it is recognized that, to date, the activities conducted to solve the serious liquidity problems being faced by the developing countries have been insufficient.

The volume of financial resources flowing toward the developing countries are insufficient to contribute to solving the problems of poverty and economic growth; even when the loans have increased nominally, the net disbursements to all the developing countries from all financial sources fell in 1987.

Net disbursements of loans granted by international financial agencies to support development, on which the poorest countries are highly dependent, dropped in real terms in 1987 in comparison to 1986. Similarly, net disbursements of loans granted by private financing agencies fell in 1987, although their share in total flows grew significantly.

Since 1986, certain reactivation may be observed in the growth of the World Bank's credit activities, in addition to greater expediency in the rate of loan disbursements, and there still seems to be some margin for increasing the benefits that this institution can contribute to the economic growth of the developing countries in general and the Latin American countries in particular.

The above considerations are doubly pertinent because of the substantial decrease in capital inflows from private financial markets in recent years, which have only partially been replaced by official resources.

Efforts to intensify the development promotion activities that the World Bank should encourage are related to three types of problems. First, a solution must be found to the paradox that some countries urgently need external loans, while it is difficult for the Bank to find new investment projects to finance, since neither the governments nor private companies have the counterpart funds required. It is, then, a problem of making effective use of the resources available.

Second, it seems advisable, as has been perceived within the institution itself, to evaluate whether the Bank's financing capacity currently responds to the magnitude of responsibilities that it should fulfill.

Finally, it may be advisable to propose the readaptation of policy reforms implied in the World Bank's sectoral and structural adjustment loans, both in their concept of the problems they intend to address and in the degree of generality and rapidness with which their application is proposed. The Bank has showed signs that it is willing to consider this restructuring which the Latin American countries have been advocating for several years.

The outlook is not promising, since an additional reduction in the financial flows to the developing countries is expected. Furthermore, interest payments and other burdens can increase the negative net transfer of capital for the countries of Latin America. In general terms, the possibilities of modifying this situation require, first and foremost, political will for concerted agreement.

If corrections are not made in present international financing trends and terms, the agencies will inevitably become net recipients of resources from the borrowing countries, as long as these countries are able to continue servicing their debt. No significant progress has been made in solving the debt problem; what is more, in 1987, it was evident that a situation of "debt fatigue" had been reached, which resulted in greater possibilities of inflexibility on the part of creditors and debtors.

2. External credit for Mexico's agricultural development

The resources available to the Mexican Government have been insufficient to provide public services, create economic and social infrastructure and give impetus to strategic sectors in the economy; consequently it has been forced to supplement its resources with external assistance.

Since the 1960s, the agricultural and water resources sector has been implementing important projects with the financial support of international agencies. These projects have helped to upgrade production and productivity in the countryside and the supply of drinking water to cities.

In 1961, The World Bank and the Inter-American Development Bank (IDB) granted Mexico loans for 15 and 13 million dollars, respectively, which were earmarked for water infrastructure works. Since that year and up to August 31, 1988, resources were obtained from abroad to support projects for irrigation, rural development, agricultural credit, technical assistance, water infrastructure and marketing for more than 5,200 million dollars.

Owing to the economic and financial strategy followed by the Federal Government to reduce the effects of the crisis, fight increasing inflation and rationalize public finances, in the recent past it was necessary to readjust the physical and disbursement goals of different agricultural projects in operation, and to cancel important amounts of resources, which amounted to a total of 600.8 million dollars for the World Bank and 121.1 million dollars for the IDB.

Consequently, credits have had to be reprogrammed and cancelled, and significant sums have had to be paid in commitment commissions, which has even placed the sector in situations with negative foreign exchange flows in these programs, thereby exacerbating public finances to an even greater extent.

Over the past three years, credit lines contracted have amounted to 634 million dollars, with the possibility of having 287 million available on the basis of their scheduling. Although the budgetary resources required were on the order of 586, 763 million pesos, only 224,636 million (38%) were allocated, which made it necessary during the same period to reduce the total amount of credit lines agreed upon by more than 324 million dollars (51%).

In recent years, substantial modifications have been made in the types of projects to be partially financed with external resources. Long-term agricultural projects have gradually been replaced with short-term,

low-cost projects. Restructuring has also been necessary in a number of cases to respond to the economic environment prevailing in Mexico, which has notably increased the demand for working capital loans.

Thus, the resources obtained for investment in infrastructure works represents 22.8% of the total amount of financing granted by the development and commercial banking system; of these resources, 22.7% were for irrigation and 45.3% were for agricultural investments. This distribution shows that this type of investment has increased substantially at maximum values of 1,200 and 2,400 million dollars in irrigation and agricultural investment, respectively. Part of these resources has gone into large and small irrigation works amounting to 212,211 million pesos, principally in the northwest region, with 25.5% in the state of Sinaloa, 10.3% in Guerrero, 9.4% in Tamaulipas and 8.8% in Michoacán.

As of August 31, 1988, the World Bank had granted Mexico 8,285.8 million dollars to support 111 projects. Of that sum, 37.9%, equivalent to 3,174.5 million dollars, was earmarked for 33 projects in the agricultural sector. The IDB, in turn, had granted 3,549.0 million dollars, of which 3,040.0 million (58%) were for 59 agricultural projects.

3. Recent problems in the operation and negotiation of external credit

Since 1983, the Secretariat of Agriculture and Water Resources has presented a portfolio of 24 investment projects that could be financed with external resources; contracts have been signed for five of these projects and one is under negotiation, although they have very little possibility of being implemented and put into operation in 1989.* These results reflect the fact that the agencies of the Federal Government in charge of formulating socioeconomic, technical and financial feasibility studies for development projects have not had sufficient budgetary and human resources. In most cases, profiles and preliminary drafts have not yet been prepared, so a portfolio of projects that are duly classified is not available in order to establish financing options on the basis of benefits, time and costs.

A reduction in the costs of projects in dollars and an increase in Mexican currency may be noted, which causes fluctuations in the cost-sharing agreed upon with international financing agencies.

In some programs there are numerous works under way that require a significant amount of resources for their completion. This situation can be partially explained by either the failure to maintain or the impossibility of foreseeing consistency between the number of works under construction and the availability of funds to cover them. In other words, budgetary allocations are insufficient to cover the investment programs originally designed, causing slow progress in implementation and consequent time-lags in the scheduled disbursements of external credit resources which, in turn, give rise to increased financial costs.

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* The projects contracted are: The Chiapas Plan, PRODERITH II, PROCATI, Agricultural Sectoral Loan, and the sixth stage of the National Water Plan for Rural Development; the project under negotiation is for forestry development in Chihuahua and Durango.

In fact, an apparently paradoxical situation has arisen. On the one hand, the crisis makes it imperative to use resources more efficiently; on the other, inefficient utilization of external financial funds may be noted. The onset of the crisis and its subsequent intensification have reduced the availability of budgetary resources; furthermore, the structural adjustment programs advanced by the international financial agencies propose significant reductions in public spending. Both factors have resulted in less availability of government resources to meet commitments assumed in signing external credit contracts and particularly the pari-passu.

Thus, even though the projects were correctly formulated and evaluated by both the Mexican offices and the financial agency at the time, the impossibility of satisfactorily forecasting the evolution of the economy during the useful life of the project in a context with a lack of flexibility for adjusting the pari-passu to the new situation, makes it difficult for the Government to contribute the resources initially committed.

On the basis of the respective contracts, this situation implies payment for the commitments the country has failed to meet, adding to its external indebtedness. The solution to this problem lies in creditors understanding its causes, recognizing the Government's efforts to cut back on its spending and deficit, and its intention to continue covering payments on its debt. The international agencies should be more flexible in handling the pari passu, so as to adapt it to current economic conditions, and, together with the Government, should remain alert to ensure that this new modality does not lead to inefficient project implementation.

Some related problems are unnecessary extensions in the implementation of projects, delays in their production of goods and services, decreases in the profitability of investment, delays in the inflow of foreign exchange in disbursements and its possible reduction and, in general, increases in debt servicing.

Faced with the circumstances described above and in order to adapt to the current and foreseeable reality, it has been necessary to restructure almost all the external credit projects, both from a conceptual and cost standpoint and from budgetary and priority considerations, which has resulted in partial or complete cancellations of external resources contracted.

The actual cost of projects has invariably surpassed the programmed cost as a result of underestimation of costs during the formulation stage, unsuitable selection of hypotheses for appraisal, delays in the implementation stages of the works, problems in the timely clearance of sufficient budgetary resources that the Federal Government had previously committed in the loan contract, and the fluctuating behavior of relative prices during implementation, which changes the original financial, economic and social evaluations. In this final item, major problems have arisen through distortions caused by devaluations and growing inflation.

Two causes of modifications in original projects can be noted: deficiencies in feasibility studies and the changing economic and financial context. The first cause has been the most important for modifications, while the second has influenced the redefinition of goals (amounts and time periods) and disbursements.

It should be specifically noted that the change in national and international economic context away from original projections cannot be considered a deficiency in the studies. In this situation, the project is modified and flexibly adjusted to the new reality and perspectives. Likewise, the lack of availability of Government financial resources to comply with the pari-passu contracted is not a deficiency either. Both situations result from the previously mentioned cause: the current state of analysis techniques makes it impossible to provide reliable approximations in projections for inflation, devaluations, crises in the balance of payments, and so forth, and these phenomena cannot, therefore, be foreseen during the implementation stages of the useful life of the projects.

The lack of domestic and foreign financing structures and mechanisms that can be adapted to the changing economic and financial situation of the country and the absence of formal proposals in this regard has, at least to date, prevented external resources from being incorporated into sectoral projects to the extent desired.

Owing to its level of development, Mexico has access only to non-concessional resources of the World Bank and of the IDB, which means that it can only obtain "ordinary and hard" capital. This is one of the reasons that financing has been concentrated in geographical areas (the north of the country) and water systems (irrigation), with the type of producer who is most advanced, since the poor producers of the marginalized zones offer insufficient production guarantees and are also excluded from the benefits granted to other countries that are less developed.

Obtaining external funds has also been hindered, particularly in recent times, by conditions that the international agencies have established in the field of general and sectoral economic policy, which leads to resources not being granted unless the entire package of policy measures is adopted. The structural adjustment programs advanced by these institutions comprise an integrated package of policies, in contrast to the economic adjustments put into practice in the past, which focused on individual policies.

In fact, as has been proven empirically, the implementation of this type of programs has produced a set of implications unfavorable to the agricultural sector, since it inhibits its development and causes imbalances which, in turn, affect the economy as a whole. These factors have not been given special attention by the international financial agencies, although interest in the topic has been increasing and loans that have begun to explicitly take into account the unique characteristics of the sector have been granted.

4. Strategic guidelines for obtaining and using external credit

The perspectives of the Mexican economy, particularly in the short and medium term, present strong budgetary constraints and insufficient domestic savings in relation to the needs stemming from population and economic growth, as a consequence of the domestic crisis and the influence of the international situation on the nation. Furthermore, greater difficulties in obtaining financial resources to support agricultural and rural development are foreseen.

Consequently, it is important to evaluate the possibilities of complementing domestic savings and having a fund sufficient to finance the requirements for reactivating production in the countryside.

The different forms in which external resources enter the country (loans, investments, donations, and so forth) can help to achieve the objectives of the rural development policy, as long as they are maintained on bases that do not lead to a negative flow of foreign exchange. In fact, the importance of external financing lies in its capacity to contribute to development without giving rise to financial insolvency or excessive burdens of debt servicing that imply stagnation or economic setbacks.

As regards future credit negotiations with the International Bank for Reconstruction and Development (World Bank), the following considerations should be borne in mind:

a. **Structural adjustment loans**

The World Bank's credit trend points toward increased granting of loans for structural adjustments, which are channelled into the economic sectors and subsectors of the countries. However, this type of financing requires compromise in policies, causes inflexibility in the use of economic policy instruments and, most of all, has high political and social costs in the agricultural sector, which is the reason that it is considered most advisable, in negotiations to contract such loans, to demand respect for the objectives, priorities and strategies of national rural development policies as a regulatory framework for the commitments to be assumed.

b. **Subsectoral loans**

Recently, consideration has been given to the possibility of the World Bank financing the entire investment program of a subsector (for example, the water subsector), with prior agreement on the percentage of the budget that would be allocated to such a program, which would be equivalent to the amount of financing. Obviously, the investment program would have to be approved by the Bank, which implies that the policy of the subsector would have to heed its goals and guidelines.

c. **Program loans**

One variation of external financing is obtaining resources for the implementation of programs formed by projects that are not specific,

but are characterized by a number of parameters. This allows for the allocation of an overall amount for the program and an overall amount of credit resources, with the introduction or removal of projects on the basis of budgetary allocations approved.

d. **Specific projects**

At the present time, this traditional means of obtaining external resources is not as advantageous as the two preceding forms. Nevertheless, it use is sometimes recommendable. In this case, maximum flexibility in the investment categories should be sought and the pari-passu should be as high as possible. Care should also be taken to ensure that the contract terms are equally flexible in relation to acquisitions, bidding, amounts for contracting, and so forth.

The Inter-American Development Bank offers no options for structural adjustment loans or subsectoral loans. Consequently, it should only be considered as a possibility for the implementation of specific programs or projects. Financing for programs should preferably be obtained under the conditions set forth in the previous section.

In view of the difficulties that the financing policies of the International Fund for Agricultural Development pose to Mexico's being considered creditworthy, it seems clear that it will be necessary to renegotiate terms so that the country can obtain greater financing from this organization. These terms rule out any possibility other than financing for programs whose projects are focused on the production of basic foodstuffs in marginalized zones for the benefit of the poorest farmers. Otherwise, any specific project of high costs and multiple benefits would fall outside of the Fund's stipulations.

5. Application and operation of funds

In the general policy guidelines for using external resources that will contribute to financing rural and agricultural development, it should be established that the projects involved should underscore the national objective of consolidating food sovereignty. To that end, priority should be given to achieving self-sufficiency, developing technology that will meet Mexico's actual needs and adapting technology from abroad.

External financing projects should boost comprehensive rural development, which implies, in essence, a modernization strategy aimed at redefining production processes and reversing trends in socioeconomic relations, increasing capital formation and integrating production activities, as well as surmounting the causes of deficiencies in rural well-being, opening up opportunities for the people's participation in economic and social processes that affect them and redistributing social wealth with greater equity. Basically, external financing should be aimed at productive investment and be clearly intended to increase capital formation in the countryside. This does not rule out financing that works to improve the social well-being of the rural population in the fields of nutrition, health, education, housing and services such as drinking water, drainage, electricity, feeder roads and telephones.

External financing should also be used to combat extreme poverty within the sphere of the Rural Development District, in collaboration with the efforts of the Mexican Government to consolidate these Districts as pivotal points for activities to promote comprehensive development of the countryside.

In general, funds from abroad can make a significant contribution to the optimum exploitation of natural resources in order to expand the generation and retention of their economic surplus, step up the capitalization of production units, ensure self-sufficiency in staple grains, increase the supply of raw materials, improve the trade balance and reduce foreign dependency, granting priority to the participation of ejido members, communal landholders and organized small landowners.

External financing should be allocated to production projects on the basis of their expected economic and social results. As regards basic research and innovation for structural change, external funds could be channeled into projects that would encourage the saving of land and the use of mechanisms that will prevent polarization of rural income and will develop social organization for production.

From the very outset, it would be advisable for new programs and projects financed partially with external funds to be selected by those who will implement them, since this would improve their contribution to eliminating the principal structural imbalances in agriculture, granting priority to:

- completion of unfinished works;
- reactivation of idle works;
- rehabilitation of irrigated areas;
- technological innovation to save land;
- incorporation, in general, of productive resources, even when scarce, if they are still economically effective and socially positive.

One of the measures that urgently needs to be adopted by international financial organizations is that concerning flexibility in the management of the pari-passu. An additional measure is greater flexibility in internal administrative norms to permit the use of funds available in the so-called "special accounts," with the adoption of the operational measures needed to ensure maintenance of budgetary discipline. By the same token, it is highly recommendable to make use of the funds' pre-investment facilities to conduct studies on which to base the optimum use of external financing and to produce a broad portfolio of projects whose priority is based on their contributions to rural development goals.

It is impossible to unilaterally determine the conditions for the best use of external financing, since it requires consideration of the policies of the financial organizations and the policies of the country, the operational conditions of the organizations and the operational strategies of the sector, as well as the mechanisms that determine the flow of resources, both from the organizations and from the nation. Consequently, it is advisable to establish a suitable combination of financing that will allow involvement in macroeconomic questions (sectoral adjustment loans), in specific branches (subsectoral loans), in aspects of production,

productivity or the well-being of the rural population (program loans), or in the solution to a specific problem (specific project loans).

In this manner, the combination of projects and financing sources will allow greater flexibility in the use of the external resources, minimizing negative aspects in the process from financial organizations or from national regulations for the use of such resources, and optimizing the advantages that the financial organizations can offer.

6. Mexican financial support for regional integration and complementarity

a. **Agreement of San José**

On August 3, 1980, the Cooperation Agreement on Energy Sources for the Countries of Central America and the Caribbean (Agreement of San José) was signed by Mexico and Venezuela. Under this Agreement, Mexico provides financing to the countries of Central America and the Caribbean for 20% of their oil bill for a period of five years at a yearly interest rate of 8%. The financing provided may be extended up to 15 years at a yearly interest rate of 6% if the resources are allocated to economic development projects, especially those of the energy sector and those for regional integration.

Since the redocumentation of long-term debts was very limited, the countries of the Central American Common Market, beneficiaries of the Agreement of San José, requested the Central American Bank for Economic Integration (BCIE) to make arrangements with the Governments of Mexico and of Venezuela to channel the long-term resources available in the Agreement through the Bank.

In response to the BCIE initiative, the Government of Mexico and the Bank began holding talks at the end of the last quarter of 1983 on a Financial Cooperation Agreement, which they both signed on November 22, 1984.

The signing of this Agreement provides a mechanism for the use of resources from the Agreement of San José that can be converted into long-term loans in which preferences are included to ensure participation of Mexican companies and facilitate association with Central American companies for the development of projects.

Through this instrument, the Mexican Government committed itself to channel an amount equivalent to 20% of the oil bill of the Central American countries through the BCIE between August 3, 1983, and August 2, 1984, which amounted to 72 million dollars. The BCIE recognized a fixed annual interest rate of 6% on the outstanding balance.

Of the total amount of the Agreement's resources, 20% forms part of the Bank's capital stock, based on its capital openness; in this manner, Mexico expands its participation as a BCIE member in other bids for projects financed by the Bank. The remaining 80% are used to finance development projects in which Mexican suppliers of goods and services are given preference, since at least 50% is used to

acquire Mexican goods and services, and the remaining 30%, including local expenditures, goes to Latin America.

The document to formalize Mexico's participation in the Central American Social and Economic Development Fund (FONDESCA) was signed on September 4, 1986. Its contribution amounts to 57.6 million dollars, of which 14.4 million (25%) consists of resources committed for this purpose in the Financial Cooperation Agreement signed in 1984 and the remaining 75% (43.2 million) forms its quota contribution.

Agreement resources can be used to finance projects for regional economic integration, economic and social development of the Central American countries and economic complementarity with Mexico. It should be stressed that the projects to be financed must qualify as regional projects, in accordance with the Bank's criteria, with emphasis on those that will contribute to the production of foodstuffs, that are aimed at generating exports to the Mexican market, that develop energy resources, that make sound use of natural resources and basic infrastructure, and that involve pre-investment studies.

In accordance with the provisions stipulated in the Agreement, 80% of the financing for projects will go to the public sector of the member countries of the BCIE and 20% will go to the private sector, for terms up to 15 years with a four-year grace period for the public sector and terms up to 10 years with a three-year grace period for the private sector. The maximum amount to be financed with these resources is 80% of the total cost of each project. Projects totally or partially opened to bidding shall not be financed unless the parties agree to such financing.

In addition, to adapt credit terms for pre-investment studies to the terms offered by other financing sources in the region, an addendum to the Agreement was signed on February 27, 1987, to establish a pre-investment program with resources from the Mexico-BCIE Agreement amounting to five million dollars with a maximum interest rate of 4%. This program includes contingent recuperation loans and, in special cases, non-reimbursable contributions. The former include those in which promoter companies work with the BCIE to conduct pre-investment studies. When feasibility is not established, these loans are considered non-reimbursable contributions. Pre-investment studies of regional interest could also be financed on a non-reimbursable basis.

To take advantage of promotion carried out in the region and to continue financing projects already identified, a second addendum to the Agreement was signed on March 22, 1988, to replenish resources with 50 million dollars, of which 5 million are earmarked for pre-investment studies and technical assistance. This expands funds to finance pre-investment studies and development projects to 107.6 million dollars.

The 50 million dollars provided for in the second addendum should be used to finance pre-investment projects and studies with a minimum of

70% for the acquisition of Mexican goods and services and up to 30% for the purchase of Latin American goods and services and local expenditures. The annual interest rate that the Mexican Government charges the BCIE is 6% on outstanding balances of public and private sector projects. The Mexican Government may reduce this rate if it considers it necessary. In this regard, a letter attached to the second addendum establishes that the interest rate that Mexico charges the Bank may be reduced to 5% when the replenishment resources are channelled through the central banks of the Central American countries.

As previously indicated, the second addendum includes 5 million dollars in additional resources to finance pre-investment studies and technical assistance, and establishes that the financing terms applicable to that amount shall be equal to those in the first addendum to the Mexico-BCIE Agreement of February 27, 1987.

In summary, the distribution of the total resources of 107.6 million dollars (100%) in the Agreement is as follows:

- 71.0 million dollars (66%) for purchasing Mexican goods and services.

- 36.6 million dollars (34%) for acquiring Latin American goods and services, including local expenditures. Of this amount, 10 million dollars (9.3%) shall be used to finance pre-investment studies and technical assistance, without prejudice to such program remaining available to finance programs and projects eligible within the framework of the Mexico-BCIE Agreement.

Thanks to these efforts, two projects are now under way in Honduras with Agreement financing of 13.8 million dollars, of which 2.5 million have been disbursed; additionally, 14 projects have been approved with 97.9 million dollars in financing. There are also 16 projects "eligible for financing" of 102.8 million dollars. In brief, 32 projects are on hand with financing requirements amounting to 214.5 million dollars, which surpasses the funds established through commitments.

These efforts respond to concerns expressed by different sectors in the country to take advantage of the Agreement of San José to support and promote the export of Mexican goods and services to Central America, a region which is a natural and untapped market for Mexico..

Furthermore, the signing of the Agreement forms part of the strategy that was initiated by the Federal Government to take advantage of opportunities offered by different multilateral financial institutions in the sphere of international bidding.

It should be noted that the agricultural sector of the Central American region has benefitted very little from the accords incorporated into the Mexico-BCIE Agreement within the framework of the Agreement of San José. Until recently, support funds had not been channelled into the sector through this means, although

fortunately CORECA has begun taking steps to obtain resources for investment projects that may result in projects that could be financed in the short term. This option is open to proposals from the Central American countries aimed at reactivating the agricultural sector.

b. Central American Bank for Economic Integration.

The Central American Bank for Economic Integration (BCIE) is an international institution established through an agreement signed on December 13, 1960, by Guatemala, El Salvador, Honduras and Nicaragua, and adhered to by Costa Rica in 1963. It formally initiated its operations on May 31, 1961, with headquarters in Tegucigalpa, Honduras.

Throughout 25 years (1961-1986) of operations, the BCIE has contributed to the development of its member countries through the financing of projects for a total equivalent to 1,718,4 million dollars, of which 1,350.4 million have been disbursed among the different economic and social sectors of the area.

Financial resources obtained during these 25 years amounted to the equivalent of 1,772.3 million dollars including both internal and external resources. Internal resources refer to the capital contributions of the member countries, which amounted to the equivalent of 230.8 million dollars, and to accumulated reserves and donations, which reached the equivalent of 190.2 million dollars. External funds, amounting to the equivalent of 1,351.3 million dollars, refer to resources obtained in regional and international capital markets in the form of loans and placement of securities. In addition to this amount, note should be made of the 72 million dollars from the Agreement of San Jose were channelled by Mexico through the BCIE to the Central American countries in accordance with the Financial Cooperation Agreement signed on November 22, 1984, and the 50 million dollar replenishment based on the second addendum to the Agreement signed on March 22, 1988.

In compliance with the it charter and the needs of the region, the BCIE should principally address:

- Infrastructure projects that will complete existing systems or compensate for disparities in basic sectors that hinder balanced development in Central America.

- Long-term investment projects in regional industries or in industries of interest to the Central American market that will contribute to increasing the availability of goods for Central American trade or for the market and the export sector.

- Coordinated agricultural specialization projects that are aimed at improving, expanding or substituting exports to improve the regional supply of Central America.

- Financing projects for companies that need to expand their operations, modernize their procedures or change the structure of their production, so as to upgrade their efficiency and competitiveness within the Common Market and facilitate free trade in Central America.

- Housing projects for low- and medium-income groups.

- Service projects that are essential to the operation of the Common Market.

- Social impact projects in the fields of employment and productivity, health, hygiene, nutrition, education and training, and rural development.

- Other production projects that will create economic and social complementarity between the member countries and increase Central American trade.

c. **Caribbean Development Bank**

The Caribbean Development Bank (CARIBANK) is a regional financial institution established by an agreement signed on October 18, 1969, in Kingston, Jamaica. It officially initiated its operations on January 26, 1970, with headquarters in Wildey, Saint Michael, Barbados, to contribute to harmonious growth and development of its member countries and to promote economic cooperation and integration among them, with special emphasis on the least economically developed countries in the region.

Mexico joined CARIBANK on January 5, 1982. As a non-borrowing member, it assumed the commitment to underwrite 2,080 shares of common stock and make a contribution to the Special Development Fund (SDF). Its contributions now amount to 15.3 million dollars, with an original contribution of 7 million and a subsequent contribution of 8.3 million for two replenishments made to finance loan programs for 1984-1988 and 1988-1991, respectively.

Mexico's contributions to CARIBANK as of May 1988 amounted to 4.3 million dollars for capital stock and 9.5 million for the Special Development Fund.

Mexico's joining CARIBANK enabled it to expand its economic relations with the Caribbean and to reaffirm its interest in strengthening its presence in this important subregion and the participation of Mexican companies in projects financed by the Bank through bidding carried out for that purpose. This participation is ensured by make contributions on the basis of 50% in dollars and 50% in pesos.

Furthermore, the Bank itself has recognized the need to give preference to member developing countries in the acquisition of goods and the preliminary designation of consultants. Consequently, the non-borrowing countries (Colombia, Mexico and Venezuela) have a

preference of 7.5% when they participate in bids for supplying goods and of 0.75 points in the preselection of consulting firms.

Mexico's contributions have also opened up possibilities for cooperation and technical assistance activities with the Caribbean countries. Experience gained by Mexico in areas such as construction, petrochemicals, fisheries, tourism and agriculture can be of great use in developing their economies. Also, education and training programs can help develop the human resources of these countries.

To achieve close economic ties between the economies of the region and Mexico, it would be advisable to expand knowledge on the specific needs and priorities of the borrowing members of CARIBANK and on the industrial and technological experience available in Mexico which could be taken advantage of by these countries and would help boost the participation of Mexican companies in the implementation of projects financed with CARIBANK resources.

VI. PRIORITY PROGRAMMING AREAS FOR MEXICO WITHIN THE FRAMEWORK OF THE PLAN OF JOINT ACTION FOR AGRICULTURAL REACTIVATION IN LATIN AMERICA AND THE CARIBBEAN

Mexico's economic, demographic and geographic dimensions make it a unique country in the region of Latin America and the Caribbean, which should certainly be reflected in the Plan of Joint Action for Agricultural Development in Latin America and the Caribbean in view of their impact on everyday reality. On the one hand, the county offers the advantage of a large and diversified installed capacity makes possible exchange and cooperation activities, and the size of its domestic market offers significant attractions for intraregional agricultural trade. But, on the other hand, there is an obvious challenge to find means of strengthening international cooperation ties with countries of similar economic and development levels that are geographically distant from Mexico.

To address these specific circumstances in a way that will be of mutual benefit to Mexico and the other countries of Latin America involved, It is proposed that the following programs be included in the Plan of Joint Action because their characteristics are closely linked to practically all hemisphere programs and projects for joint action.

A. BASIC AREAS OF PROGRAMS FOR JOINT ACTION BY MEXICO AND LATIN AMERICA AND THE CARIBBEAN

1. Program for cooperation in agricultural research

The technological dependence of agricultural activities makes it necessary to strengthen technological research and development, particularly that aimed at rain-fed and low-income farmers, so as to integrate production processes and consolidate Mexico's food security.

Priority should be given to seeking the mechanisms needed to provide technological support for the production of corn, beans, wheat, rice, soybeans and other basic commodities that can contribute significantly to reducing the negative trade balance and, at the same time, strengthen the degree of Mexico's food self-sufficiency.

This effort calls for concerted agreement on measures with other countries, which is the reason efforts are being made to promote Mexico's incorporation into the multinational programs that operate in the Andean zone (PROCIANDINO) and in the Southern zone (PROCISUR), and, in the future, in Central America (PROCICENTRAL), so as to institutionalize technical cooperation mechanisms and, just as other participating countries, share and use the technology available in each of them, in addition to that from international centers, strengthening at the same time, the entities and programs involved, in terms of the scientific skills of their human resources, the capacity to grant priority to efforts and research methodology capacity.

These objectives are similar to the general and specific objectives indicated in the "Hemisphere-Wide Program for the Promotion of Reciprocal Cooperation, International Relations, Institutional Modernization and Strengthening of Research and Technology Transfer," which would facilitate

suitable inclusion of the following priorities within a regional complementarity strategy in which Mexico would be interested as a recipient country:

a. **Development of technology for corn cultivation**

i) Technology for high disaster-risk conditions. Short season varieties resistant to drought and optimum for high-frost risk conditions; ii) Varieties produced by simple crossbreeding; iii) Varieties of high value for human consumption, technology on corn with good organoleptic characteristics and good quality for tortillas (United States, Guatemala, Honduras, Nicaragua).

b. **Development of technology for bean cultivation**

Drought-resistant, high productivity varieties of beans, pest-resistant varieties (Colombia, Brazil).

c. **Post-harvest technology for staple grains (corn, beans, wheat and rice)**

Rural technology for conserving and storing staple grain crops, knowledge on protecting family-stored grains from insects and fungi (Brazil, Chile, Argentina).

d. **Agricultural and forestry seed technology**

More expeditious and economic procedures for seed production, technology for basic to certified seed production (Argentina, Brazil, Chile, Colombia, United States, Canada).

e. **Development of wheat cultivation technology**

i) Production technology for tropical areas, wheat production and varieties in humid tropical conditions; ii) technologies to optimize water use, irrigation systems to upgrade water efficiency in wheat production; iii) Smut-resistant varieties, improved smut-resistant varieties (Argentina, United States, Canada).

f. **Development of technologies for rice cultivation**

Cultivation techniques and varieties for rain-fed conditions in tropical areas, rice cultivation in rain-fed humid tropical areas (Colombia, Peru, Brazil, Cuba, Dominican Republic, Caribbean Basin).

g. **Development of oilseed cultivation**

i) Cultivation techniques and high-productivity varieties of soybeans, soybean cultivation in humid tropical conditions; ii) coconut production and disease control, varieties and technology for coconut production resistant to lethal yellowing; iii) new species with vegetable oil and fats production potential (Caribbean Basin, Brazil).

The production units that require most technological support are campesino units, since they comprise more than 80% of the agricultural production units, occupy nearly 60% of the country's arable land and generate slightly more than 40% of its agricultural output. Low yields obtained can be increased through more modern production methods adapted to the conditions of small farm units.

Technological support for the production of corn, beans, wheat, rice, soybeans and other commodities can significantly contribute to reducing the negative trade balance in these products and, at the same time, strengthen the food self-sufficiency of Mexico.

2. Program for Cooperation in Biotechnology.

Lines of joint activities proposed in this field should take place within the framework of the objectives and strategies of the "Program of Joint Action for the Development and Utilization of Agrobiotechnology," principally in relation to the development and dissemination of theoretical and methodological bases for the formulation and implementation of policies, strategies and programs for the development of biotechnological capacity and the creation of horizontal cooperation mechanisms. The priorities are:

a. **Research areas**

Genetic engineering aimed at improving seeds, particularly corn, soybeans, sorghum, alfalfa, fruits and vegetables.

Hybrid parent lines for seeds of different crops.

Genetic engineering to upgrade the quality of different types of livestock, and particularly sheep, in Mexico.

Development of biotechnological processes for industrial food production for both human and animal consumption.

Biotechnology for tissue cultures (Brazil, Argentina, Cuba).

Production and synthesis of metabolites for agricultural and livestock application (Brazil, Argentina, Cuba).

b. **Technological organization and promotion**

- Patents

The topic of intellectual property, focused primarily on state-of-the-art technology, is of capital importance, particularly since new technology includes the genetic code of future economic development and barriers in the access to such technology are obstacles to precisely such development.

In the short term, explicit definition of a patent policy with criteria common to all the Latin American area could be a retaining wall against attempts on the part of the

industrialized countries to reserve for themselves advances in new fields.

Mexico's experience in this regard has taught us a lesson. Recent modifications in the patents law do not allow the patenting of plants, animals or food for human consumption. However, in 1987, patents were granted for biotechnological processes of all types, genetic processes for obtaining animal and plant species, animal feeds and fertilizers and agrochemicals. This change was, to a great extent, the result of pressure exerted by the industrialized countries, although a suitable transaction was achieved. In view of this experience, it is of utmost importance not to cede in additional areas and, most of all, to have a regional consensus on these matters in all international forums.

The industrial property system should be used as a dynamic factor in the national and regional development process, by offering services, information and infrastructure for the production system and the research and development activities carried out by Mexico and, at the same time, should facilitate and promote the acquisition of technology appropriate to the needs of the country in terms of processes, raw materials, national and foreign market size and its adaptation to the development needs of the countries of the region.

In order to make patents a regional promotion mechanism, it would be advisable to create a regional patent bank. An institution of this type could make possible the necessary protection for the rights of countries regarding patents and trademarks and, most important, use their registry as a primary source of technological information. A bank of this type could also strengthen the negotiating position of Latin America against existing external pressures concerning the patenting of natural processes and products as a result of biotechnological advances.

In any case, the conservation, preservation and suitable use of the region's genetic resources, in terms of the priorities for development, are of crucial importance to the future agricultural and forestry development of Latin America and the Caribbean. In this regard, Mexico's considerations coincide with the objectives, strategies, components and initial projects proposed in the Hemisphere-Wide Program for the Gathering, Conservation and Utilization of Genetic Resources," which it consequently fully endorses, taking into account the concepts that Mexico has been setting forth within CARFIT, a body established with the attentive and active participation of Mexico.

- Key companies

It is important to develop strategic initiatives for action in areas with comparative advantages by adopting joint ventures

between research institutions and private industry and joint initiatives between countries through regional multinational action to provide financial support for technological generation, adaptation and innovation.

The creation of technological companies allow more efficient assembly of comprehensive technological packages at all stages up to their effective transfer to users. Many technological cooperation activities have fallen short of their goals because of the lack of organizations or companies of this type.

- Technological management

In relation to regional mechanisms to support technological development, existing cores of technological management should be strengthened and new cores should be created to coordinate the efforts of research centers with the actual needs of the agricultural, forestry and agroindustrial sector.

Such coordination between technological supply and demand could be carried out by both public and private organizations. It is now a question of expanding and extending the sphere of such coordination to a regional and international scale precisely through cooperation activities.

3. Program to develop Mexico's agricultural trade with the rest of Latin America and the Caribbean

The expansion and diversification of the agroexports of the region's countries requires sustained economic and trade integration, which might well take place through the existing complementarity between natural resources and available lines of production.

It is a fact that intraregional agricultural trade has been limited to only a few commodities between a small number of countries. Almost three fourths of overall Latin American exports and imports take place with countries outside of the region, especially the United States and the European Economic Community, which causes strong competition to gain and maintain markets.

The uncoordinated participation of the Latin American countries in the world markets of most agricultural commodities has also resulted in the weakening of their negotiating position, which has led to a reduced share of total trade volume by the region's countries, as a whole, and has limited development of the region's production potential.

Mexico is by far the main importer of foodstuffs in Latin America. At the same time, it is an important exporter of fruit, vegetables, coffee and tropical produce. Almost all this trade takes place with North America and other OECD countries. Being able to create greater trade flows between Mexico and the rest of the countries of Latin America and the Caribbean would be a great stimulus for reactivating agriculture in the region. In terms of the composition of supply and demand, this is entirely possible. In the foreseeable future, Mexico will import

significant quantities of grains, oilseeds and dairy products and Latin America and the Caribbean can supply these commodities. Projects to stimulate agricultural trade should be developed in three basic trade circuits.

The first would be the Central American area (CORECA countries); where Mexico maintains a high surplus in its overall trade balance and has offered to stimulate its imports. The trade stimulation project should seek to use the partial scope agreements that have been signed among these countries and perhaps add others. It should also strengthen and improve financial mechanisms opened through the BCIE and other financial vehicles. The GISA forum is ideal for promoting this project which is equally visible and strategic.

The second would be trade with the Caribbean and would operate in a manner similar to the first circuit, although perhaps in a more limited manner. Fortunately, in this case, Mexico participates in the CARIBANK. Complementary trade and financing information mechanisms will need to be explored.

The third would be the project to stimulate trade with the southern part of the continent, notably with Brazil and Argentina. In this case, efforts would have to begin on a more modest basis, since there are no existing mechanisms for information and financing. Imaginative schemes such as the use of foreign debt for payments, countertrade, and so forth, should be given consideration. Mexico could be an important trading partner of the large South American countries, but expeditious trade agreement and financing mechanisms must be sought. Obviously the participation of ALADI in these projects would be essential.

In the case of Mexico, the workability of these programs could be achieved through trade conventions and/or agreements that it would sign with the interested countries, establishing the specific terms for trade operations: commitments, financing, facilities, delivery and production characteristics.

A basic part of this project is the design and operation of a Latin American agreement on agricultural trade, within the framework of ALADI, that would, among other activities, develop a regional information system on trade markets and opportunities that would provide timely and up-to-date data on prices, demand for commodities, competitor countries, supply and demand seasons, quality standards for goods, sanitary requirements, and container and packaging requirements, among other regulatory norms of agricultural foreign trade. The information system should be rapid and reliable, and the most direct means of identifying the trade opportunities that arise in the markets of the countries of the region, which could be taken advantage of by other suppliers in the region itself. It should also be a means of greater penetration to tap the opportunities that could be found for the agricultural supply in Latin America.

The terms of this proposal are compatible with the goals of the Program of Institutional Strengthening to Promote International Exports and Trade Negotiations, particularly with regard to the indications concerning

regional and subregional coordination mechanisms, both for multilateral negotiations, commodity accords and partial scope agreements and for trade information systems and market studies.

4. International cooperation.

International cooperation, especially at the regional level, provides significant complementary support for national efforts that Mexico has been making to develop the agricultural and forestry sector; but it requires appropriate definition of cooperation priorities and timely response to demands, in order to take maximum advantage of such reciprocal efforts.

At the bilateral level, there is a need to continue promoting scientific and technological exchange with countries and zones that are of special interest to the agricultural and forestry sector because of their development and/or geographic position, such as those of North America and some of those in Central And South America, Western Europe and the Pacific Basin, through active participation in established negotiation forums - joint commissions, subcommissions, specialized working groups, and so forth - and through the ratification of agreements and cooperation programs of a general nature and to support certain specific subsectors.

Efforts to consolidate cooperation relations such as those established with Guatemala, Nicaragua and Costa Rica should continue, particularly with the countries of Central America and the Caribbean, and opportunities for agreements need to be opened up to the rest of the countries in the area and in the Caribbean. The promotion of closer ties with the nations of South America and especially with the relatively most advanced could strengthen Latin America's position in relation to the industrialized countries in the search for solutions to the common challenges facing the agricultural and forestry sector in the region.

In the multilateral sphere, it is advisable to continue attracting resources, projects and programs of the specializing agencies of the United Nations - FAO, UNDP, and so forth - and maintaining efforts to establish positions of general consensus in the region aimed at readapting the work of regional agencies to the changing needs of the member countries themselves. Joint efforts should also be made to seek solutions to common problems that have hindered dynamic development in the Latin American countries.

From the standpoint of regional integration, the possibility of putting this international cooperation strategy into actual practice is centered on the establishment of a Latin American and Caribbean forum in which general policy guidelines are discussed, negotiated and decided upon, adjustments in the strategy adopted are made, and there is follow-up on specific projects based on the joint appraisal of imported technology, negotiating capacity strengthened by unified criteria and the demand for greater access to information.

The areas of regional technological complementarity in which Mexico offers possibilities for cooperation are:

a. **Agricultural subsector**

1) Development of technology for the cultivation of corn: a). Cultivation techniques and improved varieties for high productivity conditions. Corn of high productivity under irrigation and optimum cultivation conditions. b) Cultivation techniques and varieties for rain-fed farming (Guatemala, Honduras, Nicaragua).

2) Development of Technology for the cultivation of beans: a) Cultivation techniques and improved varieties for high productivity conditions. b) Microorganisms associated with soil nitrification. Exchange of soil nitrification microorganisms (Colombia, Brazil).

3) Post-harvest technology for staple grains (corn, beans, wheat and rice): Grain storage and conservation techniques (Brazil, Chile and Argentina).

4) Agricultural and forestry seed technology: Production techniques for certified seeds (Argentina, Brazil, Chile and Colombia).

5) Development of technology for the cultivation of wheat: Techniques and varieties for wheat production in high productivity areas under irrigation. Short-stemmed, rust-resistant varieties (Argentina).

6) Development of technology for the cultivation of rice: Cultivation techniques and improved varieties for high productivity conditions under irrigation (Colombia, Peru, Brazil, Cuba, Dominican Republic, Caribbean Basin).

7) Development of oilseed cultivation: Cultivation techniques and varieties of safflower, sunflower, sesame and soybean (Caribbean Basin and Brazil).

b. **Livestock subsector**

1) Grassland management: a) Recovery of grassland; b) introduction of desirable species; c) identification, conservation and production of native forage germplasm outstanding in tropical areas.

2) Forage: Improvement of forage species and exchange of germplasm from tropical areas (Cuba and Costa Rica).

3) Animal nutrition: a) Use of non-conventional feeds such as cassava, forage shrubs, and physically and chemically treated agricultural forage and by-products; b) feed systems in tropical regions (Cuba, Costa Rica, Brazil and Argentina).

4) Dairy production techniques: a) Dairy production methodologies under high productivity conditions; b) preventive medicine and diagnosis of diseases; c) dual-purpose production (milk-meat) in

tropical areas; d) reproduction - technical assistance related to bovine semen and the processing of frozen goat semen; technical assistance in artificial insemination and embryo transfer. (Brazil, Colombia, Peru and Cuba).

5) Poultry egg and meat production: a) High-efficiency production techniques; b) disease prevention and control; c) animal nutrition systems.

6) Bovine cattle and goat production: a) Production and veterinary medicine techniques; b) genetic improvement; technical assistance in preparing genetic improvement programs. (Brazil, Cuba, Costa Rica and Venezuela).

c. **Forestry subsector**

1) Reforestation and planting: a) Nurseries and reforestation. Establishment of gmelina, teak and acrocarpus plantations; Taugnya system; c) germplasm of potentially useful species (Brazil, Cuba, Colombia, Peru and Argentina).

2) Forestry protection: a) forest fires; b) forest pest control and elimination (Honduras, Belize, Argentina, Costa Rica and Brazil).

3) Promotion of the cultivation of forestry resources: a) coniferous forest management; b) Collection and domestication techniques for non-timber forest species, such as great mullein, Chamaedorea palm, and pine-tree resin (Honduras, Nicaragua, Cuba, Venezuela, Colombia, Brazil, Panama and Costa Rica).

4) Incorporation and development of forest and tropical forest owners and holders into production, processing and marketing: germplasm of species with fuelwood production potential in temperate, arid and tropical climates (Brazil, Costa Rica, Nicaragua, Honduras and Colombia).

5) Promotion of financing for forestry activities: a) experience in processing international loans for forestry activities; b) experience gained in tax incentives.

6) Promotion of forestry resources cultivation: preparation of forestry management plans for temperate climates.

7) Incorporation and development of forest and tropical forest owners and holders into production, processing and marketing: a) rural communication aimed at promoting and organizing agents for forestry change; b) rural fuelwood-saving stoves; c) community coal production.

d. **Water subsector**

1) More rational use of water: a) technology for geohydrological studies; b) technology for drilling and equipping wells.

2) Use and development of hydraulic infrastructure needed for efficient water control and use: technology for the management and administration of aquifer catchment in dams and its distribution for agricultural purposes.

e. Agroindustrial subsector

1) Corn: technology for processing corn for tortillas and flour, and detailed engineering; storage, drying, processing, machinery and equipment, technical training, technical assistance in management and equipment (Basic Commodities Supply Company, CONASUPO; Center for Research and Higher Studies).

2) Beans: conservation technology; storage and conservation (Biology Institute of the National Autonomous University of Mexico, Center for Research and Higher Studies, Irapuato Branch).

3) Wheat: technology for milling and detailed engineering, storage, drying, processing, machinery and equipment, technical training, technical assistance in managing equipment (Center for Research and Higher Studies, Irapuato Branch).

4) Rice: technology for processing paddy rice and detailed engineering; storage, drying, processing, machinery and equipment, technical training, technical assistance in equipment management (Center for Research and higher Studies, Irapuato Branch),

5) Balanced animal feed: technology for preparing feeds for poultry, swine and bovine cattle, in addition to nutrition, formulas and detailed engineering systems; storage, drying; chopping, grinding and mincing farm by-products and grains; manufacture, machinery and equipment, feed formulas and technical training (Mexican Balanced Feeds, ALBAMEX).

6) Hides and leather: tanning technology and detailed engineering, conservation of untanned hide, technical assistance in equipment management, training in processing, selection technology (Center for Research and Technical Assistance in Guanajuato, Polytechnical Institute of the University of Guadalajara).

7) Honey: processing technology and detailed engineering, technology for African bee control, harvesting technology, processing technology, quality control, engineering (African Bee Program of the Secretariat of Agriculture and Water Resources, SARH, General Directorate of Agroindustrial Development).

8) Fruit and vegetables: conservation, selection and packing technology; gathering, processing, technical assistance, training, machinery and equipment, engineering (SARH: General Directorate for Agroindustrial Development, National Fruit Supply Company, CONAFRUT).

9) Meat: slaughtering technology; gathering, slaughtering, machinery and equipment, technical assistance, training (SARH).

f. **Plant and forestry sanitation**

1) Generation of plant sanitation technology: catalogues of pests, diseases, weeds, rodents, birds and mollusks that attack the main basic crops: corn, wheat, beans and rice (countries of Latin America and the Caribbean).

2) Integrated management of coffee rust and nematodes, in accordance with experience gained in Mexico (countries of Latin America and the Caribbean).

3) Integrated management of fruit flies: a) training, biology and control methods, particularly autocidal, chemical and biological methods, in the International Training Center on the Mediterranean Fruit Fly in Metapa, Chiapas; Information on the results of the national campaign established in Mexico (countries of Latin America and the Caribbean).

4) Integrated management of plant sanitation problems in export fruits: provide information on control methods used in Mexico (countries of Latin America and the Caribbean).

5) Integrated management of plant sanitation problems in export vegetables: provide information on control methods used in Mexico (countries of Latin America and the Caribbean).

6) Integrated management of plant sanitation problems in ornamental plants for export: provide information on control methods used in Mexico (countries of Latin America and the Caribbean).

7) Plan sanitation in stored grains: technical consultancy services in storage systems and control methods used in Mexico to address plant sanitation problems in stored grains, principally in the decentralized companies of the Federal Government such as ANDSA and CONASUPO.

8) Sanitation in forestry plantations: technology for the prevention and control of agents that destroy forestry ecosystems: a) methodology for detecting and appraising areas affected by coniferous barking insects; b) control methods for coniferous barking insects; c) advisory services on the aerial application of Bacillus thuringiensis to combat defoliating insects; d) assessment methods for pine-tree areas affected by insects that drill into cones and seeds (Guatemala, Belize, El Salvador, Nicaragua and Costa Rica).

9) Implementation and enforcement of national quarantine legislation: advisory services on the implementation of national quarantine services (all the countries of Latin America).

10) Implementation and application of measures in the field of international quarantines: inspection and detection of agricultural pests in international ports and airports (all the countries of Latin America).

g. **Animal health**

1) Measures to attack bovine cattle ticks and tuberculosis: technical assistance in programs against ticks and tuberculosis (Central America, Panama and the Caribbean).

2) Sanitation conditions for livestock and swine products: technical advisory services in programs against swine fever (Central America, Panama and the Caribbean).

3) Sanitation management of poultry breeding: Technical advisory services in programs against Newcastle disease and fowl typhoid (Central America, Panama and the Caribbean).

4) Implementation and enforcement of national quarantine legislation: a) distribution and enforcement of national quarantine legislation; b) geographic distribution of pests and diseases; c) advisory services on the establishment of quarantine systems (countries of Latin America that have established inspection and monitoring systems when animals are moved).

h. **Biotechnology. (areas not included in the subsectors)**

1) Graduate training of staff.

2) Tissue culture techniques and genetic engineering.

B. OTHER POSSIBLE AREAS FOR CONCERTED AGREEMENT BETWEEN MEXICO AND THE REST OF LATIN AMERICA AND THE CARIBBEAN

1. Specific guidelines for the international agroindustrial cooperation program

The fundamental premise for defining an international agroindustrial cooperation program is to consider the Latin American region as an integrated economic entity and not as a set of countries whose isolated efforts and resources are insufficient to mark a new course for their participation in the world economy, and to close the scientific and technological gap that separates us from the industrialized countries.

In this regard, scientific and technological progress in food processes and production should be the property of Latin America and should be freely accessible to all members of the community, so as to modernize the agricultural sector along the most advanced lines of scientific and technological development, biotechnology, information services, solar

energy, and so forth, which will reduce the cost of agricultural and agroindustrial commodities and thereby improve competitiveness on the international market.

To that end, a technological profile should be formulated for each regional agroindustrial product system and for investment projects that will facilitate exploitation and processing possibilities for agricultural and agroindustrial products, together with preparation of an inventory of technological centers in Latin America linked to agroindustrial activities, and even a Latin American registry of entities that generate and provide technology.

The production lines that warrant priority treatment to accelerate agroindustrial development, as an element of regional integration, are:

a. Rice: i. processes (technology improvements and/or adoption); ii. research on post-harvest processes; iii. technology to achieve comprehensive use of by-products.

b. Wheat: i. modernization of equipment and/or adaptation of technology; ii. technology to integrate different processes; iii. processes to enrich products.

c. Corn: i. technology to prepare corn for tortillas; ii. use of criollo varieties; iii. equipment for corn flour production.

d. Animal feed: i. integration of primary-industrial producers; ii. substitute products; iii. use of forage by-products; iv. training and technical assistance for small and medium-scale plants.

e. Hides and leather: i. integration of slaughtering and tanning; ii. modernization and systems to reduce pollution; iii. identification of appropriate technology.

f. Honey: i. geographic diversification of production; ii. improvement and protection of applied genetics; iii. modernization of beekeeping facilities and processing plants; iv. improvement in the appearance of the product.

g. Beans: i. packing; ii. use of hardened corn.

h. Fruits and vegetables: i. conservation of fruits and vegetables through dehydration; ii. integration of primary and industrial production; iii. multiple processing equipment for small units; iv. engineering and development of new products; v. selection of processes and equipment for production in some states.

i. Meat: i. modern slaughtering systems; ii. livestock management and processing; iii. training for technical and administrative operations; iv. use of slaughtering by-products; v. development of small species.

j. Milk: i. vertical integration; ii. plant modernization; iii. diversification of processes; iv. pasteurization processes for small

units; v. national container and packaging technology; vi. conservation; vii. establishment new collection centers with suitable conservation facilities.

k. Oilseeds: i. modernization of milling and extraction; ii. Comprehensive use of products and by-products; iii. attainment of alternative oils.

l. Timber forests: i. infrastructure and network of forest roads; ii. regrouping of small and medium-scale agroindustries; iii. administrative and accounting technical assistance; iv. increase in the use, industrialization and marketing of tropical zones; v. development of technology; vi. education and training of human resources.

m. Arid zone products: i. processing of arid-zone products; ii. exploitation techniques for lechuguilla, candelilla palm and mezquite; iii. technological development for the use of by-products; iv. propagation of products such as jojoba, oregano and candelilla; v. development of agroindustries in the istle zone to produce polyester.

Agroindustry is one of the sectors that requires most technological support, since nearly half of agricultural production undergoes some degree of transformation or processing. Outside of the sphere of transnational companies, other industries, and especially rural industry, need strong backing for their development.

2. Specific guidelines for technical cooperation programs in the hydraulic sector

a. More rational use of water: i. modern and efficient technology for aquifer detection, use and management; more expeditious and economical technology for detecting aquifers; ii. recovery of overexploited aquifers (United States, Venezuela and Argentina).

b. Use and development of the hydraulic infrastructure needed for efficient water use and control: better water use and distribution; efficient use of water captured for high value agricultural crops; construction and maintenance systems for irrigation canals (United States, Brazil and Venezuela).

c. Reduction and control of water pollution: polluted aquifer treatment; methods for reclamation of saltpetrous land (United States, Brazil and Venezuela).

d. Irrigation technology: i. construction and maintenance systems for irrigation canals; ii. irrigation and drainage technology for humid tropical and dry tropical agricultural production zones, particularly for heavy soils with slow drainage (United States, Brazil and Venezuela).

Although Mexico does not have large watersheds, it has potential water sufficient to meet the country's agricultural and livestock

needs. Even though there are 1,283 dams and man-made water bodies, in addition to natural lakes and groundwater, only 22% of arable land is under irrigation, which reflects the uneven distribution of irrigation water. Outstanding factors in the failure to tap large volumes of water that flow into the sea are misuse of the water available and deficient operation of existing irrigation systems. Thus, technology is needed to make better use of water resources, principally techniques for irrigation systems that use minimum amounts of water and training for rural producers.

3. Forestry cooperation program

Basic guidelines for a forestry cooperation program should give priority to:

a. Reforestation and planting: planting of rapid-growth species in the tropics for paper purposes; i. techniques for establishing, managing and protecting tropical forest plantations; ii. germplasm of species with potential; planting techniques and germplasm of tropical conifers for cellulose production; rapid-growth latifoliate species for cellulose production (Brazil, Cuba, Colombia, Peru and Argentina).

b. Optimum land use: i. agroforestry techniques; massive use of agroforestry techniques; ii. watershed management; preparation of watershed management plans.

c. Forestry protection: preventing and fighting forest fires; preparation and implementation of forest fire prevention plans (United States, Honduras, Belize, Argentina, Costa Rica, Brazil).

d. Promotion of the cultivation of forestry resources: i. comprehensive use of tropical forests avoiding the selective use of species; studies on the demand for forestry species; ii. tropical forest management planning taking into account multiple resources and their interrelationships; techniques for operation inventories in tropical forests; assessment of the environmental impact of forestry exploitation (Honduras, Nicaragua, Cuba, Venezuela, Colombia, Brazil, Panama, Costa Rica).

e. Efficient development of forestry activities: market and demand studies that do not refer only to individual species.

f. Promotion of financing for forestry activities: experience in tax incentives for industrial plantations.

g. Incorporation and development of forest and tropical forest owners and holders into production, processing and marketing processes: i. use of wood for industrial and domestic fuel purposes; ii. fuelwood and charcoal production: techniques for managing and planting forest species for fuel purposes; establishment of plantations and natural resource management to produce fuelwood; methods for producing charcoal; technology for the efficient production of high-quality

charcoal (Brazil, Costa Rica, Nicaragua, Honduras, Colombia, Argentina).

4. Program for cooperation in plant sanitation

Plant sanitation programs have traditionally been hubs out of which important initiatives have arisen for joint action among countries. Specific areas that call for regional or subregional agreement are indicated below:

a. Generation of plant sanitation technology: directories of specialists in all branches of agricultural parasitology, so as to fully identify the agents causing plant sanitation problems (countries of Latin America and the Caribbean).

b. Integrated management of coffee rust and nematodes: exchange of information on the management of these problems in plant sanitation campaigns conducted in Mexico, and on the results obtained (countries of Latin America and the Caribbean).

c. Integrated management of fruit flies; i. greater communication and coordination of activities among countries to achieve integrated management of this pest; ii. creating and declaring zones free of the pest, in addition to keeping populations to a minimum in hosts of major economic importance; iii. advisory services are needed on methods of post-harvest treatment, such as hydrothermal treatment, radiation, and so forth, to eliminate pests subject to quarantine (countries of Latin America and the Caribbean).

d. Integrated management of plant sanitation problems in export fruits; i. exchange of lists of plant sanitation problems that have been fully identified in fruits of economic importance to the major producer countries; ii. information on biological factors and control methods; iii. effective methods for transferring control results to producers, so as to make technical assistance in plant sanitation successful (countries of Latin America and the Caribbean).

e. Integrated management of plant sanitation problems for export vegetables: i. exchange of lists of plant sanitation problems fully identified in vegetables of economic importance to the major producer countries; ii. information on biological factors and control methods; iii. effective methods for transferring control results to producers, so as to make technical assistance in plant sanitation successful (countries of Latin America and the Caribbean).

f. Integrated management of plant sanitation problems in ornamental plants for export: i. exchange of lists of plant sanitation problems fully identified in ornamental plants of economic importance to the major producer countries; ii. information on biological factors and control methods; iii. effective methods for transferring control results to producers, so as to make technical assistance in plant sanitation successful (countries of Latin America and the Caribbean).

g. Plant sanitation in stored grains: i. information on storage systems; ii. information on control methods; iii. information on the type of technical assistance that is given to small-scale producers, principally of staple grains (countries of Latin America and the Caribbean).

h. Sanitation in forestry plantations: technology to prevent and control agents that destroy forestry ecosystems; methods for pest and disease detection and control in tropical climate vegetation (except conifers) (Guatemala, Belize, El Salvador, Nicaragua and Costa Rica).

i. Implementation and enforcement of national quarantine legislation: i. control measures in the movement of plants and their produce; ii. plant sanitation inspection and monitoring systems; iii. exchange of technical information on national agricultural quarantines (all the countries of Latin America).

j. Implementation and enforcement of international quarantine measures: i. design and implementation of modules to receive information and statistics on pest and disease warnings for agricultural protection; ii. staff training for international inspection (all the countries of Latin America).

5. Program for cooperation in livestock research

The priority areas identified for a cooperation program are:

a. Grassland management: exchange of experience, skilled staff and support for training human resources (Cuba, Costa Rica).

b. Forage: exchange of germplasm from tropical areas (Cuba, Costa Rica, Brazil, Argentina).

c. Animal nutrition: exchange of experience in the use of non-conventional feeds, principally cassava and tropical grasses (Cuba, Costa Rica, Colombia, Venezuela).

d. Dairy production techniques: i. production techniques for humid tropical and dry tropical conditions; production technology for humid and dry tropical conditions at the family and semi-commercial level; ii. High-productivity breeds for rural tropical and subtropical conditions; breeds suitable for humid tropical conditions at the family and semi-commercial level (Brazil, Colombia, Peru, Cuba).

e. Animal management in backyard production systems: i. poultry for meat and eggs; production and management technology for family poultry production in tropical and subtropical areas; ii. swine breeds for family production in tropical and subtropical areas; family swine production and management technology in tropical and subtropical areas; iii. production and management techniques and knowledge concerning disease prevention and control; animal health and disease diagnosis, prevention and control (Caribbean Basin, Brazil, Colombia, Peru).

f. Poultry meat and egg production: i. disease control techniques; ii. optimization in the use of inputs; preparation of diets and more efficient and profitable management systems.

g. Bovine cattle and goat production: i. dual purpose (meat-milk) breeds for tropical conditions; technology for the genetic improvement of bovine cattle and goats; ii. goats for meat and dairy production in tropical areas and arid zones; high-production breeds for tropical areas, veterinary medicine and animal health (Brazil, Cuba).

Strengthening international cooperation activities that intensify bovine cattle breeding for meat is of utmost importance in order to make it more socially profitable to the country, since it now uses more than half of the nation's land, it is a factor in ecological disturbances, it feeds a very limited proportion of the population and its exports have fallen. Special support should also be given to international cooperation and projects to encourage dual purpose livestock production in the tropics.

The use of arid and semi-arid zones for raising livestock with specific techniques for management and utilization is a means of correcting, to a great extent, the failure to use land that is agriculturally suitable for grazing purposes.

Upgrading the productivity of the livestock herd, and especially dairy cattle, through genetic improvement can help reduce dairy imports.

Poor management and disuse of grasslands and agricultural by-products should also be given attention to improve productivity.

6. Program for cooperation in animal health

Areas that could be dealt with through regional or subregional activities are mentioned below:

a. Control of ticks and tuberculosis of bovine cattle for export: methods and techniques of regional programs for ticks, tuberculosis, federal inspection plants and toxic residues (Central America, Panama and the Caribbean).

b. Sanitation conditions of swine and pork products: methods and techniques of regional programs for swine fever, federal inspection plants and toxic residues (Central America, Panama and the Caribbean).

c. Poultry sanitation management: methods and techniques of regional programs for Newcastle disease and fowl typhoid, federal inspection plants and toxic residues (Central America, Panama and the Caribbean).

d. Implementation and enforcement of national quarantine legislation: i. control measures for movements of animals and animal products;

ii. national sanitation inspection and monitoring systems; iii. distribution of pests and diseases in other countries; iv. exchange of technical information on national quarantines (countries of Latin America that have established inspection and monitoring systems for movements of animals).

The economic, social and environmental impact that plant and animal pests and diseases have on agricultural production, conservation, processing and marketing, which limits the availability of foodstuffs, fibers, leather and other products is generally well known. Nevertheless, only a very limited amount of studies and information is available to specify the economic losses caused by these sanitation problems, which would allow priorities to be established for the implementation and development of programs to control and/or eradicate them. Nonetheless, there is no doubt that solving these sanitation problems is a prerequisite for upgrading agricultural productivity and facilitating intraregional trade and access to third markets by overcoming sanitation barriers that have proliferated in recent years.

One of the principal and fundamental activities that should be developed in the Latin American countries is implementation of an information and monitoring system for data on economic losses caused by plant and animal diseases and pests that will make possible the characterization and economic evaluation of plant and animal sanitation problems in each country and thereby enable authorities, producers and other interested sectors to establish priorities for the implementation of programs either at the national or multinational level, focused on solving the most important problems, both from the standpoint of production and productivity and for purposes of agricultural marketing.

C. AGREEMENT ON ACTIVITIES IN THE AREA OF FOREIGN INVESTMENT AND TECHNOLOGY TRANSFER

1. Guidelines for joint agreement on foreign investment

Reactivation of agricultural development will undoubtedly required a strong investment component. However, the external debt and reduced net external financing implies not only less availability of "fresh" resources, but also the need to transfer abroad a large part of domestic savings to service the debt. Furthermore, the capacity to generate domestic savings has been limited by deterioration in the productive apparatus, making it difficult to consider the possibility of gaining the investment flow needed to reactivate the agricultural sector without strong external support, at least during the initial stage.

General guidelines for foreign investment could be:

- Seek consolidation in agricultural reactivation through foreign investment projects with the greatest potential for integration and cooperation.

- Select areas that include a specific food security component and reject non-priority projects.

- Identify projects with high export potential.

- Develop investment projects that provide complementary support for national technology generation activities, as established in the Mexican Program.

Production investment options should favor the processes most closely linked to the multiplying effects of investment.

Foreign investment programs and projects should comprise a minimum set of characteristics that will help consolidate agricultural reactivation. They should have the greatest potential for integration, cooperation and complementarity; promote activities that tap real comparative advantages in terms of efficiency and competitiveness in order to penetrate into markets inside and outside of the region; include components that will strengthen intersectoral links and therefore have the capacity to heighten their impact through increased value added of the end product, as is the case with agroindustry; take advantage of the existing production infrastructure; and bolster rural development in specific areas through the promotion of incentives for training and campesino organization.

Mexico's foreign investment policy has been promoting the participation of foreign capital in areas that are net generators of foreign exchange and employment, and has also been supporting investment projects that incorporate and adapt technology. The general objective has been for foreign investment to directly support the economic growth of the country without displacing domestic investment.

As part of the promotional approach and selective nature of foreign investment policy, efforts have been made to systematize and simplify administration which, recognizing the flexibility allowed by the law when foreign investment contributes to national objectives without displacing domestic investment, streamlines and simplifies the entire system for authorizing projects and places the authorization system within a framework for agreeing on goals and commitments.

One of the measure that the Federal Government has implemented in this regard is the "General Resolution to Systematize and Update the General Resolutions issued by the National Foreign Investment Commission."

2. Technology transfer.

In the field of technology transfer, one of the central criteria followed by Mexican foreign investment policy is that such investment incorporate state-of-the-art technology under three basic objectives:

- Transfer technology that will allow the country to remain at the forefront in international economic trends, particularly in fields where Mexico has resources to achieve greater world competitiveness.

- Seek technology transfer that will contribute to Mexico's development objectives and will encourage true transformation through the development of suppliers and other schemes that will encourage such change.

- Encourage technological research and development in the country and favor strong links between the production sector and the research and development centers.

At the same time, while recognizing that the objectives of the companies should be compatible with the country's needs and that they should be aimed at its development in a concerted manner, the "Mexico Program" was put into operation to enable the companies to contribute more effectively to Mexico's technological development in areas considered to be of priority.

This program enables companies to finance specific research and development programs, taking full advantage of the research centers existing in the country. At the same time, this support provides significant backing for the development of research in Mexico and contributes to directing technology toward the field in which Mexico has true potential.

Foreign investment policy has been incorporated into the framework of structural change that will favor the efficient participation of Mexico in the international scenario. Some of the advantages that Mexico offers the foreign investor are political stability, abundant natural resources, skilled and competitive labor, a relatively significant degree of industrial development, a favorable geographic location, a domestic market of more than 80 million inhabitants, and a viable development strategy adapted to the needs of the country.

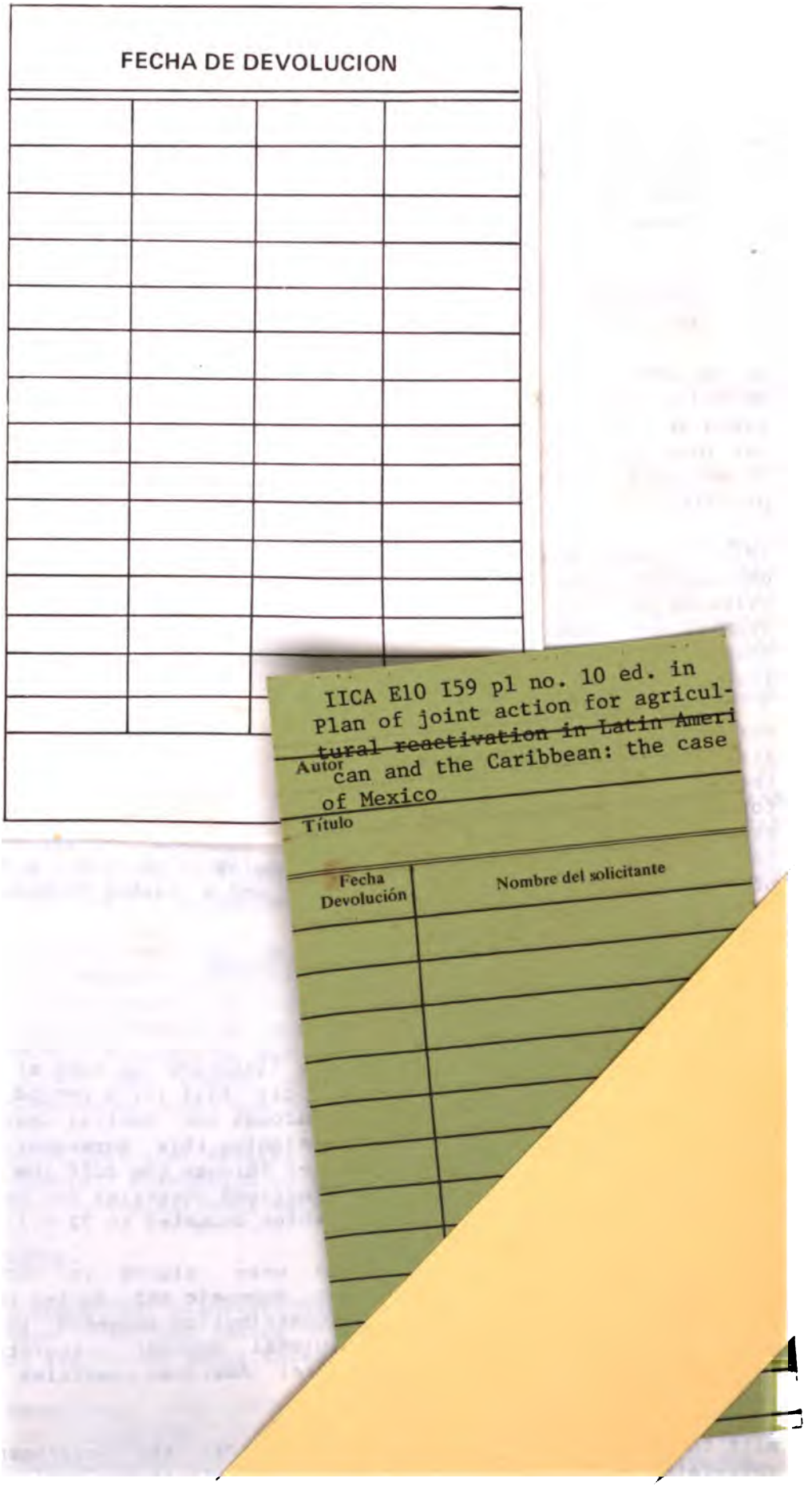
D. CONCERTED AGREEMENT ON FINANCING ACTIVITIES

Agreement of San José

Under this Agreement, Mexico grants financing to Central American and Caribbean countries for 20% of their oil bill for a period of five years at an annual interest rate of 8% through the Central American Bank for Economic Integration (BCIE). In signing this Agreement, the Mexican Government committed itself to channel through the BCIE the equivalent of 20% of the oil bill of the Central American countries for the period from August 3, 1983, to August 2, 1984, which amounted to 72 million dollars.

On September 4, 1986, documents were signed to ratify Mexico's participation in the "Fund for the Economic and Social Development of Central America (Fondesca). Its contribution amounted to 57.6 million dollars to finance projects for regional economic integration, economic and social development of the Central American countries and economic complementarity with Mexico.

With the implementation of this Agreement, the Government of Mexico reiterates its commitment in two aspects: both to the basic principles of the Contadora Group - that the problems of Central America are basically of an economic origin - and to the foreign trade policy aimed at promoting the export of Mexican goods and services.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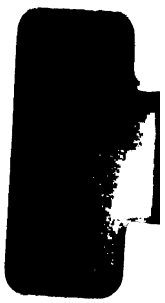

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE
P.O. Box: 55-2200 Coronado, Costa Rica - Tel.: 29-02-22 - Cable: IICASANJOSE - Telex: 2144IICA
Electronic Mail EIES: 1332 IICA SC. FAX (506)294741 IICA COSTA RICA