

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

2

PLAN OF JOINT ACTION IN SUPPORT OF AGRICULTURAL REACTIVATION AND DEVELOPMENT IN THE COUNTRIES OF THE CENTRAL AMERICAN ISTHMUS AND THE DOMINICAN REPUBLIC

August, 1989

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

REGIONAL COUNCIL FOR AGRICULTURAL COOPERATION IN CENTRAL AMERICA, MEXICO, PANAMA AND THE DOMINICAN REPUBLIC (CORECA)



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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.

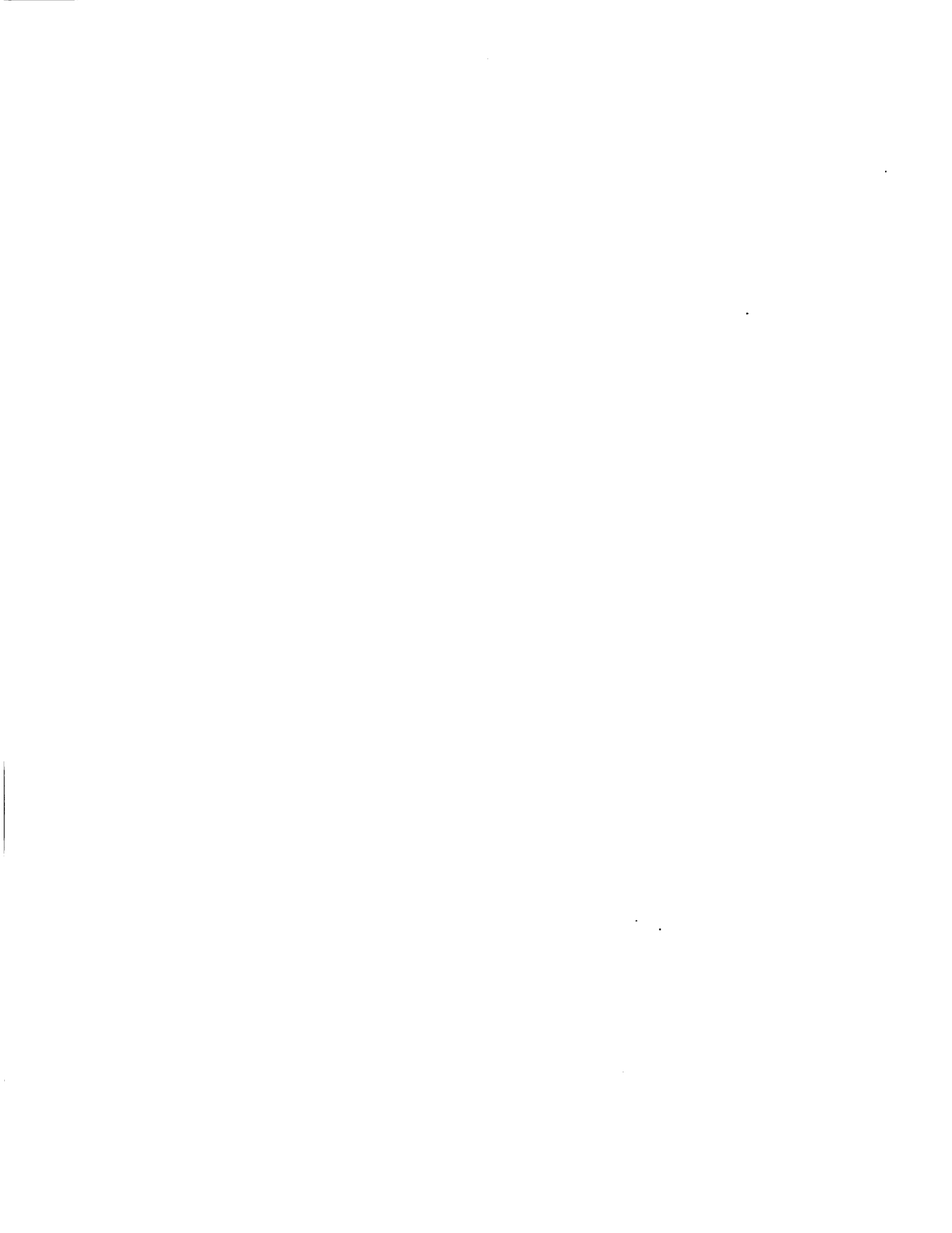
Numerous institutions and people contributed in one way or another to this effort, either through the extensive consultations carried out, or through specific contributions made in the preparation of the different documents which make up the PLANLAC.

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.

The preparation of this document was enriched by contributions from the ministers and vice ministers of agriculture, as well as from technical authorities from CORECA member countries (Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and the Dominican Republic); the UNDP and GISA member organizations (BCIE, CATIE, CADESCA, CIPREDA, CORECA, ECLAC, IICA, OIRSA, OLDEPESCA, SIECA); other agencies participating in the Inter-Agency Advisory Meeting (1); and IICA Representatives and technical staff in the eight countries. Roger Guillen and Reynaldo Perez (CORECA) and Lars Pira (IICA) were directly involved in the writing of this document, receiving input from the following persons: Hector Campos Lopez, Helio Fallas, Eduardo Lindarte and Rodolfo Martinez Ferrate (IICA); Gustavo Adolfo Aguilar and Salvador Arias (SIECA); and Juan Alberto Fuentes Knight (UNDP).

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.

1 Also attending the meeting were, in alphabetical order, ALIDE, CARDI, CARICOM, CIAT, CIMMYT, CMA, FAO, IFPRI, INTAL, ISNAR, JUNTA, Ministry of Agriculture Fisheries and Food of Spain, OAS, PAHO/WHO, SELA, UNESCO, University of the West Indies (UWI) and the World Bank (IBRD).



INTRODUCTION

This Executive Summary is one of the documents published in connection with the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean. It sums up the Plan of Joint Action for Agricultural Reactivation and Development in the countries of Central America and the Dominican Republic, which is explained in greater detail in the full text.

It synthesizes the work (consultation and data gathering) that went into the writing of a document on the importance of the agricultural sector to the economic and social development of the subregion, and on the actions which should be undertaken to reactivate the sector. The purpose of this summary is to offer a brief overview of the motives behind the formulation of the plan, and the factors which influenced the focus given to agricultural development, as a contributor to production growth and the socioeconomic development of the region.

It is also presented to familiarize the reader with some of the terminology and concepts contained in the complete document, and to make the contents of same available to those for whom a full reading may be too time consuming.

STRATEGY FOR AGRICULTURAL REACTIVATION

A. THE CURRENT ECONOMIC AND SOCIAL ENVIRONMENT IN THE CENTRAL AMERICAN ISTHMUS AND THE DOMINICAN REPUBLIC

The severity of the crisis in the Central American isthmus and the Dominican Republic becomes evident in a review of certain production and export indicators, the financial situation, and the overall economy of the countries. As compared to the 1970s, in the 1980s there was a decline in growth rates and investment, and the total value of exports failed to reach previous levels. The latter was due primarily to low international prices for raw materials from the area, resulting in a deterioration of the countries' terms of trade. Furthermore, the countries have not been able to keep up with growing fiscal deficits, nor honor their commitments with foreign creditors.

Social indicators deteriorated during this decade. The glaring inequality in the distribution of income is accompanied by a deterioration of other social factors. Infant mortality is on the rise, the daily intake of protein and calories is falling and poverty is more widespread in the rural sector than in the rest of the economy. This socioeconomic deterioration is also due to the political conflicts besetting the area. However, the Esquipulas accords demonstrate that the peoples of Central America are determined to prevent regional disintegration, and to keep the ideal of unity alive, because they realize that lasting peace is a prerequisite for socioeconomic development in the subregion.

B. TOWARD A REACTIVATION OF THE ECONOMIES OF THE CENTRAL AMERICAN ISTHMUS AND THE DOMINICAN REPUBLIC

1. Potential for Overall Reactivation

Joint efforts for achieving a lasting peace increase the prospects for the reactivation and development of the economies. It is generally agreed that the creation and consolidation of institutions capable of meeting the challenge of development in an increasingly open, competitive and rapidly changing world is feasible only through joint actions and regional integration. However, peace and democracy cannot take root if the economic and social development achieved does not benefit most of the population. Therefore, international cooperation is needed in subregional integration and coordination efforts, through the financing of projects aimed at producing, preserving and strengthening peace. It is imperative that the countries of the subregion take advantage of the fact that they are so close to important markets, and that they participate in channels providing access to new markets which have opened up new opportunities for increasing and diversifying exports.

Integration and international cooperation play an important role in the strategy to increase production efficiency and promote diversification toward third markets. In spite of the fact that a prerequisite for promoting intraregional trade in Central America is that confidence be restored in payment mechanisms, there is a determination to speed up integration efforts and joint actions in Central America. The efforts made recently by international agencies and countries in Europe and the Americas to channel financial resources into integration and joint actions in Central America make

the re-establishment of the Central American Common Market all the more valuable to the reactivation and overall development of these economies.

2. The New Challenges of Development

Despite the relative success enjoyed over the last few decades through the introduction of new export commodities and the vitality of trade as a result of integration, the countries continued to depend for their foreign exchange earnings on a few raw materials, whose prices are subject to fluctuations on international markets. The industrialization process did not produce the desired linkages in the economy, which led to even greater dependence on imported inputs and raw materials for production, thus reducing the countries' abilities to escape the effects of external factors and low export prices. If one considers that the behavior of the economies of the area has always been closely linked to the performance of the export sector, the reactivation of this sector must be included in any short- or long-term plan of action. An aggressive policy to gain access to markets must be followed, especially for non-traditional exports. This is necessary because the potential for expansion of traditional exports has been severely limited by increased competition among exporters of raw materials, and by reduced income elasticity of demand, coupled with an increase in protectionist measures and the development of substitutes. Even though traditional exports will continue to be important in the short term, medium- and long-term strategies should emphasize export diversification.

While it is true that the promotion of exports is important to reactivation, efforts in that area will not, by themselves, be enough to ensure sustained growth and greater well-being, unless steps are taken to improve production, domestic consumption, and the standard of living of the majority. Greater levels of production must be achieved through policies which boost supply and promote specialization. Of special importance is the alleviation of poverty through a more equitable distribution of wealth and improvements in health care, education and housing. The satisfaction of basic needs must be seen as a means of ensuring higher production levels and improving the standard of living.

In spite of the high growth rates enjoyed by the countries of the subregion during the 1960s and 1970s, production and management were not handled very efficiently. Faced with the prospect of greater international competition, it is important that resources be used to achieve higher levels of efficiency and productivity, while at the same time addressing the objective of reducing poverty. The transfer of appropriate and ecologically sound technology, and efficient intervention by the State, must be encouraged.

3. Factors Affecting Reactivation

The increasing burden of the debt service, and the deterioration of prices for agroexports, has limited the availability of foreign exchange for importing capital and inputs needed for production. Increasingly, new resources are diverted to restoring financial credibility rather than to funding urgent development programs. Until the debt problem is solved, there can be no reactivation or development of the economies. Intraregional cooperation increases negotiating power in the search for viable solutions to the debt problem.

Growing pressure arising from debt service, combined with the need to solve the external imbalance and the fiscal deficit problems, has led the countries to adopt adjustment and stabilization programs. While such policies have a proper place in the effort to reduce fiscal deficit and promote efficient production, the overall effect of liberalizing the economy must not be overlooked. In other words, attention must be paid not only to the financial effects of such measures, but also to the effect they have socially and economically. Furthermore, since adjustment and stabilization policies are applied by the countries individually, it is necessary to establish a regional framework for negotiating these programs because the reinstatement of the Central American Common Market and of intraregional trade requires that agreement be reached on policies that will make integration possible.

C. THE ROLE OF THE AGRICULTURAL SECTOR IN ECONOMIC REACTIVATION AND DEVELOPMENT

1. The Relative Importance of the Agricultural Sector and its Potential for Economic Reactivation

The agricultural sector, in relation to other sectors of the economies of the subregion, makes a very significant contribution. In most of the countries, the agricultural value added, and the proportion of the total work force and of the population in general involved in the sector, is greater than in the rest of Latin America. Furthermore, the agricultural sector plays a vital role through the generation of foreign exchange and the payment of taxes. The potential of the sector for aiding in the reactivation of the economies can also be appreciated in light of the following considerations: i) the adoption of a more realistic exchange rate policy has helped diminish the anti-agriculture bias, in relation to other sectors; ii) agriculture is the sector which offers the greatest opportunities for diversifying exports and creating linkages in the economy; and iii) greater potential exists because of structural changes related to land tenure carried out in some countries.

2. Essential Facts to Consider for Agricultural Reactivation

Despite the relative importance of the agricultural sector in the economies of the area, there are short-term and structural obstacles which prevent the potential of the sector, as a force to reactivate and develop the economies, from being fully utilized. Low international prices and substitution in the export markets, combined with the destruction of the agricultural sector as a result of the armed conflicts in the area, have hampered prospects for continued expansion of the traditional agroexport subsector. Also, structural impediments have prevented most of the rural population from benefitting from scarce financial and technological resources, and from the factors of production. These short-term and structural obstacles, which make it impossible to achieve higher levels of production and productivity, have had a negative effect on the socioeconomic condition of the rural population.

It is in the agricultural sector that the political crisis in El Salvador and Nicaragua has had its most devastating effect. Food production for domestic consumption and for export has been drastically curtailed by war. Consequently, a prerequisite for reactivating the economies of the subregion and achieving sustained growth is to find a solution to the political crisis.

The political conflicts in some countries, together with the debt problem and a deterioration in the terms of trade, have restricted the availability of resources needed to reactivate the agricultural sector. In view of these limitations, the sector must be strengthened with respect to the rest of the economy, and investments must be made more efficiently than ever. External cooperation gains importance not only as a means of alleviating the basic causes of the crisis, but also as a source of investment for the sector, in order to exploit the sector's potential for economic and social reactivation.

Even though agroexports play an important role in producing foreign exchange and tax revenues, international prices for these commodities fell, having a negative impact on sector incomes. Faced with the prospect of further deterioration, the total land area planted with crops aimed for the export market expanded at a slower pace, which effected the economic growth rate.

The situation in the agricultural sector is even more alarming if an analysis is made of the evolution of food production for domestic consumption, which has expanded even more slowly than production in the agroexport subsector. As a result, the availability of basic foodstuffs has not kept pace with population growth, and net imports have had to grow considerably during this decade. These imports have had to be supplemented by food assistance programs, which have become more and more important in most of the countries in recent years.

The deterioration of the production and social structures of the sector is attributable, in large part, to an inefficient allocation of resources. Traditionally, financial and technological resources have been reserved for farmers with the largest landholdings. This has enabled these farmers to obtain higher yields from the crops they produce for domestic consumption and export.

The high level of rural poverty has produced large-scale migration to urban centers. Population growth and migration to the cities have fostered the creation of an informal urban sector as a refuge for the unemployed, creating even greater food demands. The existing poverty of the rural population is intimately linked to the manpower needs of the agricultural sector; it has not been able to create enough jobs to keep up with the growth of the rural population. In addition, there is considerable underemployment in the sector, which affects both small-scale and landless farmers. The limited productivity of small-scale farmers is such that they cannot even achieve minimum subsistence levels, and they are forced to seek other temporary employment.

One policy carried out in some of the countries of the subregion has been to expand the agricultural frontier by settling previously uncultivated lands. Because of extensive felling of trees in forests and the encroachment of cattle grazing and agriculture into the mountains, combined with an almost complete lack of soil conservation methods and appropriate management techniques, the problems of deforestation and soil degradation have reached the critical stage in all the countries. This implies that there are few ecologically sound alternatives left for the expansion of the agricultural frontier.

The decrease in the size of the rural population and the agricultural economically active population (EAP), and the reduced availability of basic foods, as well as the poor performance by the small-scale farmer and the deterioration of social conditions in the sector, are attributable to

structural factors which govern the agricultural sector in the subregion. Despite improvements in land tenure practices over the last decade, problems related to poverty, unemployment and underemployment, and low levels of productivity from small farms persist. While more small farmers have been incorporated into production activities by expanding the agricultural frontier, it is also true that this has led to a further concentration of lands and the fragmentation of small holdings because most of the settlements have involved the incorporation of large expanses of prairies and permanent pastures. Greater access to land for the rural poor will support sectoral reactivation not only because it will improve the well-being of rural poor, but also because it will improve overall production efficiency.

3. Contribution of the Sector to the Overall Reactivation and Development Strategy: Some Key Factors

The importance of the agricultural sector in the reactivation of the subregional economy is more apparent when the role of the small-farm economy in the economic development of the countries is taken into consideration: i) two-thirds of the rural population is engaged in small-scale farming; ii) the effective contribution these farmers make to total food production for domestic consumption, and even for export, is considerable; iii) to the extent that the small-farm population produces and consumes, the strengthening of same will help expand the domestic market and the production sectors geared to that market. Hence, reducing poverty must be seen as an integral part of the development process, and not simply as a "social compensation".

The development of the domestic market by boosting productivity in the small-farm economy must be part of a food security strategy for the population as a whole. Greater production of basic foods does not necessarily satisfy the demand for same if all members of society do not have equal access to this food. A food security strategy must include an increase in production and productivity on the part of the small-farm sector, and not simply concentrate on the demand side of the issue. Food assistance takes care of the needs of developing countries suffering from a scarcity of food. However, while the goal of such aid is to support the balance of payments and reduce unemployment by paying for certain services with food, over the short and long term, such aid may actually be a detriment to production in that it causes distortions in relative prices and leads to changes in patterns of consumption.

The development of the domestic market, by boosting small-farmer production, is at the heart of reactivation and overall development for the economies in the area. However, if exports are not increased to bring in the foreign exchange needed for the growth of the sector, the development strategy will stagnate. The need to continue promoting traditional exports becomes even greater not only because they still represent an important part of the total value of exports, but also because the level of productivity achieved for these products is greater than that of exporters elsewhere in the world. The growing saturation of the market in developed countries, the substitution of traditional agricultural commodities by industrial products, and the need to stabilize revenues from overseas also make it necessary to diversify the agroexport sector over the medium and long term and, in this way, avoid overdependency on a few crops for the generation of foreign exchange. In order

for the efforts at export diversification to be consistent with the primary objective of boosting domestic development by promoting productivity in the small-farm sector, shall farmers must get involved in exporting non-traditional and traditional commodities.

A long-term strategy for sustained economic development requires that there be a balance between the promotion of production for domestic development and for exports, as well as an intersectoral balance, with productivity growth in both industry and in agriculture. The modernization of the agricultural sector, through the promotion of intersectoral relations, can become one element of a larger strategy for the reactivation of the economies of the subregion. The modernization of agricultural production creates greater value added than other economic activities related to production, by producing backward-forward linkages. By involving the small farmer and creating more employment, the modernization of the agricultural sector also generates more income, thus producing the demand that fosters industrial production.

For the purpose of increasing production and productivity in small-farm agriculture, it is important, in addition to providing greater access to land, to assign more human, financial and technical resources to production for both the domestic and export markets. Better educational opportunities and health services will also contribute to raising productivity levels. Improved health depends on the availability of food, which points up the need for a food security program such as that proposed herein. Another important objective is greater efficiency in the marketing of traditional and non-traditional commodities. It must be emphasized that technology designed to increase productivity and efficiency must be ecologically sound.

D. INSTRUMENTS FOR IMPLEMENTING THE STRATEGY

Instruments must exist for implementing an agricultural reactivation and development process which will aid in achieving goals like those described above. These instruments include policies, the strengthening of production and State organizations, modernization of the State, investment and integration as well as joint actions. While most of these instruments are implemented at the national level, joint action is necessary for the reactivation and development of the sector. Integration and joint actions are an integral part of the proposed strategy because linkages are established between production destined for domestic and subregional consumption and that for overseas markets, and because they promote efficient production and greater coordination between agriculture and industry.

1. Policies

The importance of the exchange rate to the promotion of non-traditional exports notwithstanding, it is necessary to consider specific policies aimed at increasing the production and export of these products. Tax, exchange rate and credit incentives, and the reduction of red tape related to exports must also be examined.

While it is true that, as a result of adjustment and stabilization programs, exchange rate and trade policies in some countries have improved relative prices in the agricultural sector, some aspects of these programs have had a negative impact, especially on the small-farm sector, which often enters

markets at a disadvantage. Therefore, to achieve greater efficiency in small-farm production, in addition to considering the gradual elimination of subsidies and the liberalization of prices whenever possible, as well as a greater participation by cooperatives and the private sector in the marketing and production system, differentiated policies must be implemented which will change structural factors currently preventing the efficient use of resources and the factors of production. Priority differentiated policies must concern: access to and legal ownership of land, together with a component which will make credit and technology more available to small farmers. In addition to such policies, mechanisms must exist which ensure the participation of small farmers in the marketing process.

2. Strengthening Production Organizations and Institutional Systems

Small farmers must be better organized if certain technologies based on economies of scale are to be introduced, and if the small farmer is to participate in the diversification of agroexports and in agroindustry. This will also provide them with greater representation and the opportunity to participate more actively in the formulation and implementation of adjustment and stabilization policies, so that they reflect the differentiated policies of the sector.

While it is true that government must be run as efficiently as possible to allow the countries of the subregion to make the investments they need—especially in light of debt problems and low prices for principal exports—, certain factors in the countries limit the use of market mechanisms which promote development. Because of existing structural deficiencies, State actions have a greater impact than in developed countries, in that they give rise to problems which the free play of the market alone cannot solve.

Despite the important role the State plays in the efficient allocation of resources for agricultural reactivation and development, there are certain structural and short-term aspects of government operations which require revision. The structural aspects consist of numerous factors and people that intervene in the formulation and implementation of the policies which determine the direction the agricultural sector takes. The short-term aspects, which have come about as the result of growing pressure to control public spending and investment because of the debt and the fiscal deficit, suggest that State actions in certain areas need to be studied. Those which are new and have strategic impact should be emphasized; those which have been adequately developed in the private sector and already involve well-developed farmers' organizations should be abandoned.

3. Goals and Nature of an Investment Strategy

Although agricultural reactivation and development requires heavy investment, the availability of financial resources for this purpose is restricted because of the debt service and capital flight. Under these circumstances, in order to establish a steady flow of funds for reactivating the sector, the need to obtain external financing is greater than ever. However, investment alone is not enough. It must be accompanied by other actions such as institutional strengthening and technology generation. Programs and projects must share common criteria, at least to some extent, if the objective of reactivation of the economies is to be achieved. Therefore, they should: i) take full

advantage of the potential for integration, cooperation and complementarity of the economies of the subregion; ii) encourage activities which maximize real comparative advantages related to efficiency and competitiveness, with a view to gaining access to regional and extraregional markets; iii) contain components which will make full use of existing intersectoral links to obtain greater added value; iv) promote rural development in specific areas by providing incentives for the training and organization of small farmers; v) take advantage of production infrastructure which is underutilized or out of service for lack of maintenance; and vi) develop infrastructure in line with public spending limits.

4. Integration and Joint Actions: Key Elements for Subregional Agricultural Reactivation and Development

The development of the domestic market and the promotion of exports should take place within the framework of an integration process, in order to take advantage of the potential demand in the countries of the subregion, and raise production efficiency through increased specialization. Intraregional agricultural trade facilitates the achievement of higher levels of productivity and efficiency from small farmers, and the establishment of a subregional food security policy to benefit the poor. It can also promote the saving and generation of foreign exchange, in that it can facilitate efficient substitution of imports and increase the competitiveness of agricultural commodities destined to third markets.

The establishment of a common market provides the incentives of demand needed for a successful agroindustrialization program. Forward-backward linkages can be created by initially increasing production within a protected expanded market to achieve greater competitiveness in production. A broader concept of integration and joint actions must be held. For example, intrasubregional cooperation must aim to improve negotiating power and marketing techniques for the purpose of obtaining greater access and better conditions on export markets.

Joint actions include: i) the establishment of a common market, in order to take advantage of an expanded, protected market; ii) working to solve a national problem common to several countries; iii) increasing the negotiating power of the countries; iv) overcoming technological barriers and sanitary problems; and v) bringing subregional interests into line with regional interests.

Training and horizontal technical cooperation, together with greater institutional strengthening and the promotion of large subregional projects which the countries cannot carry out by themselves, are actions to be taken in the short term as groundwork for the implementation of programs and projects which are part of the integration process and of joint actions.

PRIORITY AREAS FOR JOINT ACTION PROGRAMS AND PROJECTS

Based on the preceding, thirteen priority areas have been identified for joint action among the countries of the subregion. They have been selected according to which aspects of the reactivation strategy can be addressed or strengthened through joint action. Below is a summary of the thirteen key proposed areas of joint action, on which the subregional programs and projects should focus.

A. PRIORITY AREAS FOR PROGRAMS OF JOINT ACTION

1. Food Security

A food security program must include an intraregional increase in effective food production, and promote a more equitable distribution of income. In addition, an intraregional food security policy must be established which will boost agricultural production efficiency if production can be specialized in accordance with the comparative advantages of each country.

2. Support to Small Farmers and Rural Development

For the small-farm economy to become stronger, differentiated policies must be introduced in the sector and there must be a firm policy of support for small farmers. They must be given access to land of sufficient quality and advantageous location to make them competitive on the national, subregional and international levels. If small farmers are to increase their production and productivity, financial and technological resources must be channeled to them. The organization of small farmers is an extremely important ingredient in consolidating the democratic process and in achieving greater levels of economic development.

3. Promotion of Agroindustrial Development

The goal of agroindustrial development is to modernize the production structure through the processing of agricultural raw materials. In order to improve the technical efficiency and the economy of the agricultural sector, these efforts should be carried out in such a way as to generate more foreign exchange, increase manpower requirements, and improve rural standards of living. Both the conversion of unproductive and obsolete agroindustries, and the creation of new ones, are proposed. One important aspect is to focus attention on the development of rural agroindustry to benefit poor farmers interested in exporting their products.

4. Development and Diversification of Exports

For the development and diversification of exports, it is extremely important to facilitate trade and improve macroeconomic and sectoral incentives, in order to promote the production and export of non-traditional agricultural products. Considering the potential of agricultural products for generating value added, resources must be earmarked for promoting the export of products which create intersectoral links. Governments must be better informed about external markets and how to negotiate within them. Subregional coordination and joint actions increase the chances of achieving these objectives more efficiently and at a lower cost.

5. Natural Resources, Ecology and the Environment

In the final analysis, intensive exploitation of natural resources, a phenomenon occurring in many countries of the subregion, contributes to reducing food production, with the consequent negative impact on real per capita income and physical well-being. The most serious problems related to the exploitation of natural resources transcend the borders of any one country. A combination of careful and sustainable development with efficient management

of natural resources, therefore, is a key to future economic and social progress in the subregion. A strategy for joint action should be adopted which provides guidelines for the integrated exploitation and conservation of tropical areas, their waters, their forests, and the surrounding cultivated areas. It should include research, technology transfer and training activities which will make it possible to develop and implement appropriate natural resource management practices.

6. Development of Fisheries and Aquaculture

This area is seen as a complement to the agricultural sector. It must be kept in mind that as part of the reactivation of the economies of the subregion, projects are to be promoted which generate foreign exchange by exploiting natural resources, provided they use ecologically-sound technologies. The program should be carried out on three levels: i) incentives for expanded and more intensive ocean fishing; ii) an increase in fresh water aquaculture projects; iii) diversification in the exploitation of different species, through the introduction and development of ocean-type aquaculture, to make up for losses in species subject to overexploitation.

7. Standardization of Policies and Subregional Investments

The re-opening of the common market and intraregional trade among the Central American countries will require policies to facilitate the integration process. Since adjustment policies are applied by individual countries, there must be a regional framework of negotiation for these policies to define Central American priorities and strengthen the process of integration. It will also be necessary to upgrade agricultural public sector skills in diagnosing the impact of overall policies and of the integration process, with a view to making the public sector a true advocate in these areas. Scarce domestic resources and increasing difficulties in obtaining loans and external assistance, due to debt problems, mean that investments must be efficiently coordinated.

8. Development of Production Infrastructure: Irrigation and Drainage

Achieving greater levels of productivity with improved technology requires that efficient use be made of available irrigation infrastructure, expanding existing irrigation capacity, and guaranteeing access to basic inputs (fertilizers, agrochemicals, certified seeds, etc.). A program to develop production infrastructure is necessary to support other strategic programs such as the food security and the export diversification programs. A mechanism should be established to facilitate the execution of the corresponding subregional program.

9. Improvement of Subregional and International Marketing

To achieve a more efficient exchange among the countries, agricultural commodities must be included in multilateral intraregional trade agreements. Given that the level of industrialization of the countries of Central America varies considerably, some countries will not be as able as others to export their products. The joint handling of the export of some regional commodities

to third countries, especially traditional exports, could improve prices and expand market segments. Also, it must be taken into account that negotiations by individual commodities can be less advantageous for the countries of the region than negotiations by groups of commodities, even within integrated intraregional trade programs. In order to promote non-traditional exports, complementary and joint investments should be made in basic marketing infrastructure, and a compilation should be made of all available information on tariff and non-tariff barriers which prevent these products from entering international markets.

10. Scientific and Technological Development

For there to be increases in productivity and competitiveness, especially for small farmers, there must be increased capacity to absorb, develop and use technology. To achieve this objective, the program should contain three related components: i) institutional strengthening to ensure minimal technological capabilities; ii) the use of reciprocal technical cooperation as a priority strategy for the countries of the subregion; iii) the development of new orientations and capabilities. A key element in the scientific and technological development of the subregion is the development of specific strategies for small farmers.

11. Strengthening of Agricultural Health Services

One of the most important actions in this area involves the implementation of an information and data monitoring system on economic losses caused to animals and plants by pests and diseases, with a view to make assessing the economic scope of agricultural health problems. Adequate laboratories are available, but there is a shortage of qualified personnel to conduct the necessary research. A key action to be taken is the coordination of agricultural protection programs at the subregional level, in order to promote intraregional trade and comply with the import requirements of third countries. Furthermore, joint actions should be taken to develop alternatives for the control of pests and diseases, which would minimize the use of long-lasting, toxic products.

12. Livestock Development

It is essential to increase production and productivity in the livestock subsector, in order to bring in greater foreign exchange earnings through beef exports, and to satisfy domestic demand for meat and dairy products. The production of other types of meat will also have to be increased. This action could lead to the establishment of intensive, high-yield livestock activities which utilize irrigated lands, and which will demand considerable effort in related technical areas, as well as work in genetic engineering, animal health, reproduction and herd management. The backward-forward linkages arising from the implementation of this action must also be considered. The development of livestock activities should focus on assisting small- and medium-scale farmers and on raising the protein intake of the population.

13. Agricultural Credit

As a complement to credit already available in the sector, this joint effort would increase the availability of agricultural credit for programs aimed at

incorporating the small-farm economy into overall agricultural growth. Credit has an impact on food security, boosting the small-farm economy, rural development and all other areas involved in incorporating the small-farmer sector.

B. INITIAL PORTFOLIO OF SUBREGIONAL AGRICULTURAL PROJECTS

The following is a list of subregional agricultural projects, broken down by subject and institution of origin:

| <u>TOPIC/PROJECT</u> | <u>INSTITUTION OF ORIGIN</u> |
|---|------------------------------|
| <u>Area I: Food Security</u> | |
| 1.1 Food Security Program for the Central American Isthmus - Stage Two | CADESCA |
| 1.2 Agricultural Credit Restructuring Program - PRECA | CADESCA |
| 1.3 Regional Program for Production of Edible Vegetable Fats and Oils | BCIE |
| <u>Area II: Support to Small Farmers and Rural Development</u> | |
| 2.1 Regional Program of Integrated Rural Development Projects - DRI | BCIE |
| 2.2 Strengthening Rural Settlements through the Creation of Rural Development Funds, and through Training, Evaluation and Systematization of Experiences in the Central American Isthmus and the Dominican Republic - PRACA | IICA |
| 2.3 Regional Border Development Program | IICA/OAS |
| 2.4 Technical Assistance Project for Agricultural Development - RUTA II | Govt Costa Rica |
| <u>Area III: Promotion of Agroindustrial Development</u> | |
| 3.1 Central American Program for Sugar Industry Conversion | BCIE |
| 3.2 Central American Agribusiness Program - Phase III | BCIE |
| 3.3 Agroindustrial Development Program (Five Project Profiles) | CADESCA |
| 3.4 Central American Program for the Production of cellulose and Kenaff fiber. | ECLAC |

Area IV: Development and Diversification of Exports

- | | | |
|-------|---|-------|
| 4.1 | Central American Program on Permanent Non-traditional Permanent Crops | BCIE |
| 4.1.a | Central American Program on Citrus Production | ECLAC |
| 4.2 | Central American Program to Boost the Export of Non-traditional Crops | BCIE |
| 4.3 | Program to Diversify Non-traditional Exports in the Countries of Central America | IICA |

Area V: Natural Resources, Ecology and the Environment

- | | | |
|-----|---|-------|
| 5.1 | Strengthening Public Institutions and Supporting NGOs in the Development, Use and Conservation of Natural Resources | CATIE |
| 5.2 | Regional Watershed Management Project - Phase Two | CATIE |
| 5.3 | Support to the Development of Watersheds in Border Areas | CATIE |
| 5.4 | Management of the Fraternidad Biosphere Reserve of the Montecristo Massif - TRIFINIO | CTPT |
| 5.5 | Agriculture in the Semi-arid Zone of the TRIFINIO Region | CTPT |
| 5.6 | Regional Agrometeorology Project - Phase II | CATIE |

Area VI: Development of Fisheries

- | | | |
|-----|--|-----------|
| 6.1 | Central American Program on Aquaculture and Mariculture | BCIE |
| 6.2 | Project for Fisheries Development in Central America and Panama | OLDEPESCA |
| 6.3 | Development of Tuna Fishing | OLDEPESCA |

Area VII: Standardization of Policies and Subregional Investments

- | | | |
|-----|---|------|
| 7.1 | Standardization of Agricultural Policy in CORECA Countries | IICA |
|-----|---|------|

Area VIII: Development of Production Infrastructure: Irrigation and Drainage

- | | | |
|-----|---|------|
| 8.1 | Central American Program on Irrigation, Drainage and Soil Conservation | BCIE |
|-----|---|------|

Area IX: Improvement of Subregional and International Marketing

- | | | |
|-----|---|-------|
| 9.1 | Inter-regional Transportation and Marketing Project | ECLAC |
| 9.2 | Agricultural Input and Commodity Exchange | SIECA |

Area X : Scientific and Technological Development

- | | | |
|-------|---|--------------------|
| 10.1 | Regional Program on Improved Seeds, with Emphasis on Basic Foods and Promising Crops | BCIE/IICA |
| 10.2 | Cooperative Agricultural Research Program for Central America, Panama and the Dominican Republic - PROCICENTRAL | IICA |
| 10.3 | Study of the inheritance mechanism of some production-related characteristics in hybrids of CACAO | CATIE |
| 10.4 | Agroecological Inventory of Central America | CATIE |
| 10.5 | Use of tissue cultures to achieve somaclonal variation in tropical oilseed crops, as a means of increasing resistance to heat and drought | CATIE |
| 10.6 | Nutrients dynamics in agroforestry systems | CATIE |
| 10.7 | Reciprocal Technical Cooperation Program - COPER II | CORECA |
| 10.8 | Biotechnological Development Policies and Actions for Central America | SIECA |
| 10.9 | Regional Program to Strengthen Agronomic Research on Staple Grains in Central America | CADESCA PSA/EEC |
| 10.10 | Technology Generation and Transfer for Small Farmers of Staple Grains in Central America | IICA/UNDP |

Area XI: Strengthening of Agricultural Health Services

- | | | |
|------|---|----------------|
| 11.1 | Prevention, Control and/or Eradication of Fruit Flies in Central America and Panama | OIRSA/ IICA |
| 11.2 | Agricultural Health Information and Data Monitoring Network in the Central Area | OIRSA/ IICA |
| 11.3 | Regional Project on Bovine Mastitis | OIRSA |

- | | | |
|------|---|----------------|
| 11.4 | Regional Project on the Control and/or Eradication of Swine Fever in El Salvador, Mexico, Guatemala, Honduras and Nicaragua | OIRSA/ IICA |
| 11.5 | Strengthening Agricultural Emergency and Quarantine Systems in the Central Area | OIRSA/ IICA |
| 11.4 | Control and Eradication of the Mediterranean Fruit Fly | OIRSA |

Area XII: Livestock Development

- | | | |
|------|---|-------|
| 12.1 | Development of a Bovine Feed Strategy for Meat and Milk Production Using a Forestry-Grazing Approach for the Humid-Dry Tropics of Central America | CATIE |
| 12.2 | Conservation and Use of Genetic Resources | CATIE |
| 12.3 | Use of Tree and Bush Foliage in Goat Production Systems in Central America | CATIE |
| 12.4 | Modernization of Animal Husbandry in Central America | ECLAC |

INSTITUTIONAL AND FINANCIAL MECHANISMS FOR IMPLEMENTATION OF THE PLAN

A. INSTITUTIONAL MECHANISMS

Given the volume of international cooperation converging on Central America at the present time, the definition of institutional mechanisms to be used to create the necessary conditions for implementing the Strategy of Joint Action for Agricultural Reactivation in the Central American isthmus will involve two existing dimensions which complement each other. The international cooperation coming in to and earmarked for the five Central American countries shall be considered in implementing the Plan, requiring selective management of resources coming into the subregion.

A strategy has been formulated for seven countries (Central America plus Panama and the Dominican Republic), based on a diagnosis of common socioeconomic factors and incorporating a strategic vision of the subregion. It identifies areas of joint action through which the strategic objectives can be achieved.

Differentiated management between the five countries of Central America and the other two countries affects only the allocation of cooperation resources, which, as has already been mentioned, are dealt with differently by the different donors. The sole purpose of this differentiation is to strengthen dialogue among countries of the Central America Common Market and create the proper framework for international cooperation.

In order to lay the general groundwork for the Plan of Joint Action for Agricultural Reactivation, existing mechanisms must be used and effectively coordinated to carry out joint action efforts as defined in the strategy.

The Plan is designed to operate on two levels. First, it is viewed as an ongoing process for reaching a consensus on the ideas included in the Plan. Second it will involve the execution of joint actions. In this way, it can incorporate all the people who, in one way or another, are involved in the agricultural sector.

1. The Sectoral Component

This component is made up of various initiatives for cooperation, as well as coordination mechanisms created to strengthen the regional agricultural development process.

a. IICA-SIECA Agreement

This agreement will make it possible to incorporate key agricultural strategies into the overall economic reactivation proposal for the subregion. It provides for both institutions to carry out cooperation actions in order to contribute effectively to regional integration and agricultural development. In addition, the organization agree to develop a process of information and consultation at the national and subregional levels in regard to the strategy for agricultural reactivation, which will serve to incorporate different points of view, from both the governments and from subregional organizations, into the strategy in an orderly fashion and disseminate proposals with a view to promoting a consensus on the same. In this way, agricultural proposals can reach the proper forums where overall economic strategy is discussed, and which, in turn, will help achieve consensus on other levels.

b. Regional Unit for Technical Assistance (RUTA) - Phase II

The main objective of the Regional Unit for Technical Assistance for Agricultural Development in Central America (RUTA II) is to carry out sectoral studies that will serve as the basis for designing agricultural investment programs in the countries of the region.

One of the mainstays of the Plan of Joint Action for Agricultural Reactivation is the investment program, which consists of projects identified in the areas of joint action established in the strategy.

The implementation of a project such as this, parallel to the Plan, will be beneficial to the countries since both stem from the same needs as presented by the countries. It will give the project an appropriate frame of reference and close links with agricultural authorities.

The main thrust of this project's action is to create the proper framework for executing a regional agricultural investment program that includes technical cooperation and funding components and promotes national agricultural development, through investment projects.

c. Inter-institutional Group for the Agricultural Sector - GISA

This is a coordination body for subregional organizations, created by the Meeting of Central American Vice Presidents and broadened to include international organizations that provide technical cooperation and funding to the agricultural sector, at the request of the CORECA Council of Ministers.

This Group plays an essential role in the work carried out by the Regional Council for Agricultural Cooperation, as is evidenced in CORECA's operating plan, defined by the Council in November, 1986. In it, GISA is assigned the task of rallying the support of cooperation organizations for achieving the objectives for the region as defined by the countries. This requires a strategy that is divided into stages. First, the strategic objectives of the countries must be brought into line with each other. This should then lead to commitments to carry out concrete programs and, finally, it should bring the countries together in a regional mechanism that, while respecting individual differences, allows cooperation organizations to offer complementary assistance to the countries.

GISA is currently the vehicle through which international cooperation is coordinated for the reactivation strategy, and it has thus become an active mechanism for applying the strategy.

d. Regional Council for Agricultural Cooperation in Central America, Mexico, Panama, and the Dominican Republic (CORECA)

CORECA is the highest-level agricultural forum in the subregion, carrying out its functions through a Council of Ministers, an Executive Committee of Vice Ministers, a Technical Committee of Agricultural Planning Directors, and the Executive Secretariat.

The Council operates on three levels: with the regional agricultural sector; with technical cooperation and funding agencies; and with the mechanisms of the Central American economic integration system. Interaction with the latter is extremely important in that it provides a forum for discussing proposals emanating from the agricultural sector, and lends them the necessary support.

Under the Plan, the Council will have the authority to set priorities among the projects planned for the areas of joint action; establish guidelines for executing the strategies; monitor the processes for assigning priority to regional agricultural projects and for implementing them in accordance with the basic principles set forth in the strategies. The Council will also work to merge national interests with regional interests and represent the agricultural sector's position in higher political forums (meetings of the vice presidents, joint meetings of ministers of agriculture and ministers of economy and integration).

e. Special Plan for Economic Cooperation for Central America (PEC)

The PEC is an international technical cooperation and funding instrument, organized by the United Nations in support of the Esquipulas peace accords and to contribute to socioeconomic reactivation in Central America. As such, the Strategy of Joint Action for Agricultural Reactivation serves as the framework for PEC in matters related to agriculture.

f. The Commission of the European Economic Community (EEC)

The Commission is the European cooperation instrument for initiatives in the region. Cooperation from the EEC has acquired a more permanent nature, and is carried out through agreements between governments and the Community. The Strategy of Joint Action for Agricultural Reactivation provides the appropriate background for this important cooperation initiative, as pertains to the agricultural sector.

g. The Inter-American Institute for Cooperation on Agriculture (IICA)

IICA is the specialized agency for agricultural cooperation of the Inter-American system and is responsible for formulating the Strategy for Agricultural Reactivation. It will assist the countries in managing and negotiating activities related to the execution of joint actions. The Institute will also continue to provide technical support to the forum of ministers of agriculture for the proper execution of Plan activities.

2. Multisectoral Component

This component is made up of the highest-level political bodies and multisectoral forums of the region. In addition to engaging in the usual sectoral action, it will also be necessary to maintain relations with the bodies that deal with the general aspects of regional economic development. This will permit the discussion of the agricultural strategy at appropriate levels.

a. The Meetings of Central American Vice Presidents

This is an instrument of political coordination for the economic and social reactivation process in the region, which arose from the Esquipulas accords. It is a high-level political body that mediates international cooperation initiatives and supports the agriculture sector.

b. The Joint Meeting of Ministers of Agriculture and Ministers of the Economy and Integration

This forum is an element of the System for Central American Integration, where the participation of agriculture in the development of the region is discussed. It is a suitable place for seeking consensus on Plan activities.

c. Joint Meeting of Vice Ministers of Agriculture and Vice Ministers of the Economy and Integration

This is a preparatory meeting to the meeting of Ministers and serves to clear up technical positions and draw up recommendations.

3. The Institutional Process

CORECA will be in charge of coordinating actions among the various decision-making bodies and making sure that the basic objectives of agricultural diversification and modernization presented in the agricultural reactivation strategy are met. It will strive to achieve regional consensus on the key points of the strategy, the areas of joint action, and the most important

projects. It will work to coordinate the countries' actions and to match their interests with external cooperation and with international technical cooperation and lending organizations.

This indicates two areas of CORECA influence at the regional level: i) in the agricultural sector and ii) in the multisectoral sphere. Once regional consensus is reached on the strategic proposal within the sector itself, a consensus must be reached with the other sectors, especially those sectors that define economic policies.

The latter will be concerned with two levels of activity: the national level, where agriculture must be recognized as the key element in economic reactivation, and the regional level, where the potential of the agricultural sector to meet the challenges inherent in the proposed strategy of joint action must be recognized.

All of the above decision-making bodies, together with the various cooperation initiatives in Central America, and the interest other organizations show in participating in the strategy, are dynamic elements that will contribute to implementing the proposals of the strategy. CORECA will coordinate the portfolio of projects with international technical cooperation and funding organizations, seeking to guide interest toward the areas of joint action defined in the strategy.

CORECA will coordinate these various elements through the different bodies that make up the Council. Thus, the Executive Committee, as the body monitoring the process to bring into harmony the aforementioned mechanisms (GISA, RUTA, PEC, CORECA, IICA-SIECA AGREEMENT, EEC, IICA and others) will pay special attention to: i) the process of formulating regional projects; ii) ways to implement these projects; and iii) follow-up and evaluation of the Plan of Joint Action. This means that the vice ministers of agriculture will be involved both in regional joint action and in the national activities of the Plan, since each project will have its own execution mechanisms.

Likewise, the Technical Committee's counterpart action in the formulation, negotiation and execution of projects designated for the areas of joint action will ensure the participation of the counties throughout the process.

B. FINANCIAL MECHANISMS

The two key factors for agricultural reactivation are the identification of investment opportunities and providing for funding. The programs and projects described in Chapter III concern the first factor; some of the institutional mechanisms mentioned also serve as bodies through which financial resources can be channeled for implementing programs and projects at the subregional level, for example, the Special Plan for Economic Cooperation for Central America (PEC) and the Commission of the European Economic Community (EEC). Others, such as RUTA, will serve to strengthen pre-investment units in the subregion. The following is a description of financial mechanisms aimed at consolidating a true program of subregional investment, particularly as concerns the Central American region.

1. Subregional agencies for strengthening and coordinating investments in the agricultural sector of Central America
- a. Technical Assistance for Agricultural Development in Central America (RUTA II)

In 1987, the Planning Ministers from the countries of the Central American isthmus, under the leadership of Costa Rica, informed the United Nations Development Programme (UNDP), the World Bank, the International Fund for Agricultural Development (IFAD) and the Inter-American Institute for Cooperation on Agriculture (IICA), of their interest to have projects whose main objectives would be to establish or strengthen national technical units to equip them to make sectoral and subsectoral studies and analyze policies that serve as the foundation for designing well-balanced and realistic agricultural investment programs. The national units would also take the lead in identifying, selecting and preparing these programs, and in implementing projects that contribute to agricultural and rural development in participating countries.

Activities to enhance the capabilities of key personnel who work in the design of sectoral policies, the formulation of investment programs, and the programming, implementation, follow-up and evaluation of projects should have a significant multiplier effect by targetting low-income small farmers, providing them with access to credit and agricultural extension services.

One of the most attractive features of the project is its subregional character. Countries in the isthmus will be able to share experiences and information when dealing with similar problems. In fact, projects prepared in each country will be used to promote the exchange of information, and seminars will be organized to examine and discuss the details of investment projects in the different agricultural subsectors of the countries. Another important feature of the project will be the exchange of information on sectoral policies currently in effect in the different countries, as well as the sharing of experiences in regard to the organizations set up by the countries to regionalize and decentralize the decision-making process and the provisions of services to farmers, particularly small farmers and the rural poor.

- b. The Investment Projects Center (CEPI)

The Investment Projects Center (CEPI), under IICA's Office of the Assistant Deputy Director General for Operations, cooperates with member countries and IICA units in identifying, formulating and evaluating projects. It also supports the formulation of IICA projects, provides training and helps design methods in these fields.

CEPI provides technical support for IICA units and direct services to IICA's member countries in its area of expertise.

To achieve its objectives CEPI operates in four different areas to:

- i. Examine and improve its ability to analyze the preinvestment process for agricultural development projects and/or programs, as well as their micro- and macroeconomic impact.

- ii. Upgrade horizontal coordination with IICA Program technical experts at Headquarters and in the countries.
- iii. Strengthen ties with national institutions responsible for identifying, preparing and evaluating projects and project-related training efforts.
- iv. Cooperate with IICA's in-house training process in its areas of expertise.

Given the purpose and functions of CEPI, as well as the guidelines and types of action indicated above, CEPI focuses its efforts on four complementary areas of action:

- i. Preinvestment and evaluation
- ii. Training in agricultural project development
- iii. Analysis and development of project methods
- iv. Direct technical cooperation

c. International Cooperation Center for Agricultural Preinvestment (CIPREDA)

The International Cooperation Center for Agricultural Preinvestment (CIPREDA) came into being with the support of the governments of Mexico and Guatemala and has become one of CORECA's executor bodies in the area of preinvestment. As one of its main tasks, CIPREDA focuses on preinvestment efforts, where it formulates prefeasibility and feasibility studies for subregional agricultural programs and projects. It complements its action with initiatives related to research, training and international cooperation. It currently maintains cooperative links with IICA, SIECA, and in general terms, with other institutions of the GISA.

2. Subregional Bodies for Channeling Financial Resources to the Agricultural Sector

a. Central American Bank for Economic Integration (BCIE)

As the funding mechanism of the Economic Integration Program, and pursuant to its Charter, the Central American Bank for Economic Integration (BCIE) is both a funding entity for development and an institution which promotes and executes economic integration. The BCIE gives priority to regional-type projects, and the degree of financial assistances is established by taking into consideration the Projects' impact on the development and economic integration of the countries of Central America.

Bank funds are oriented toward projects that have a subregional impact, and the authorization of credits is based solely on technical and economic considerations. The Bank makes direct loans to borrowers, and also channels resources through national funding institutions.

The BCIE manages the Central American Common Market Fund, created in 1981 to settle trade accounts among the central banks of the region, through the Central American Clearinghouse. The Assembly of Governors also approved the creation of a Central American Economic and Social Development Fund (FONDESCA)

to include countries from outside the region in the BCIE; its resources form a part of the Bank's assets. The Bank administers the funds contributed by Mexico through the BCIE-Mexico financial cooperation agreement, as well as those committed to FONDESCA.

3. Consolidation of a Financial Mechanism

Considering the multiple initiatives that have arisen in support of Central America and which require the formulation and execution of joint programs and projects by the countries, a subregional preinvestment system must be built that supports the generation and ranking of the programs and projects incorporated into the portfolio of the institutions that make up the Inter-institutional Group for the Agricultural Sector (GISA). It will serve to link these countries to international funding organizations and thus enable them to obtain external resources to implement these programs and projects.

The creation of the preinvestment system should lead to ongoing coordination between the organizations that have the authority to strengthen and coordinate investment in the agricultural sector and the organizations that channel funding resources to this sector. Therefore, the Central American Bank for Economic Integration (BCIE), the Regional Unit for Technical Assistance for Agricultural Development (RUTA II), the Investment Projects Center of IICA (CEPI), the International Cooperation Center for Agricultural Preinvestment (CIPREDA), and other organizations that deal with preinvestment in the subregion should all participate in this preinvestment system.

The proposed preinvestment mechanism must also serve to channel financial resources from other organizations to the subregion. This would include the Inter-American Development Bank (IDB), the World Bank and/or bilateral sources.

I. INTRODUCTION

The Ninth Inter-American Conference of Ministers of Agriculture --specialized Conference of the Inter-American System, convened by the OAS and held in Ottawa, Canada, in September, 1987--, by virtue of Recommendation No. X, commissioned the Inter-American Institute for Cooperation on Agriculture (IICA) to "develop, in collaboration with the member countries and other specialized agencies, a strategic plan of joint action in support of agricultural revitalization and economic development in Latin America and the Caribbean". This resolution was also endorsed by the Seventeenth General Assembly of the OAS in October 1987. The Plan is to be presented to the Inter-American Board of Agriculture at its regular meeting to be held in 1989. 1/

In carrying out this mandate, it became necessary to define specific strategies for each of the subregions of Latin America and the Caribbean (LAC). Even though the economies of these countries have a lot in common --making it possible to design action proposals at a hemispheric level-- there are also significant differences between the subregions which warrant that special attention be given to each one of them.

The emphasis which the Plan of Joint Action places on joint decision-making underscores the importance of both subregional and intersubregional proposals. The important role of cooperation and integration in the member countries of the different regions makes it imperative to address a number of issues jointly. Despite structural differences between the countries of a given subregion, these same countries share a geopolitical context which gives meaning to subregional proposals. Analysis of these structural differences would suggest then that the plans should also consider different actions even within each subregion.

The subregions of LAC, as addressed in the Plan of Joint Action, are as follows: the Central Area; the Caribbean Area; the Andean Area, and the Southern Area.

In the case of the Central Area, the seven relatively smaller countries (the Central American Isthmus and the Dominican Republic) are dealt with separately from Mexico. Strategy proposals are set forth accordingly and prospective joint projects are defined on the basis of these proposals.

In accordance with the basic guidelines established for the preparation of the Plan, a first stage was developed which consisted of the "Strategy for Agricultural Reactivation", aimed at reaching a consensus on priority areas where joint action in the subregion ought to focus. Once these areas were established, the next step entailed identifying regional agricultural project profiles for each one and defining the institutional and financial mechanisms required to implement the Plan.

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

As per requests issued by the CORECA Council of Ministers, at its Fourth Special Meeting in Panama in July 1988, the preparatory stages of the Plan for the Central American Isthmus and the Dominican Republic consisted of implementation of a multifaceted mechanism for the purposes of information, consultation and participation, involving both the countries of the subregion and the regional and international agencies working therein. The highlights of this process included:

- Progress Reports on the preparation of the Strategy presented at different meetings of the Technical Committee and the Executive Committee of CORECA.
- Progress Report on the preparation of the Strategy presented at the Seventh Regular Meeting of the CORECA Council of Ministers (April 1988, Nicaragua).
- Presentation, discussion and approval of the draft version of the Strategy at the CORECA Forum of Ministers, at its Fourth Special Meeting (July 1988, Panama). On that occasion, as indicated above, the Council of Ministers requested that immediate steps be taken to tailor the Strategy with the participation of each country and of the various specialized agricultural agencies in the region.
- Presentation of the Strategy (first draft) by the CORECA Council of Ministers to the Central American Vice Presidents, at a meeting held in July 1988 in Guatemala, leading to Vice Presidential Resolution No. 2, which not only congratulates the Ministers of Agriculture for their efforts, but reiterates the request to IICA and to CORECA to promote a joint effort with the Inter-institutional Group of the Agricultural Sector (GISA) and other agencies in the preparation of the final Strategy proposal. The Resolution furthermore requested that a progress report be submitted to the next Meeting of Vice Presidents on the work ensuing from said Resolution. It is important to point out that the objective of the Meeting of Vice Presidents was to identify the Central American institutional organization for implementing the Special Plan for Economic Cooperation for Central America (PEC); the need then arose to coordinate the Strategy for Agricultural Reactivation with the PEC proposal, in matters concerning the agricultural sector.
- Meetings to review and confer with all the countries at the national level, attended by representatives from the agricultural public sector, the institutions responsible for macroeconomic policy and the private sector. These meetings were organized and steered by the Vice Ministers of Agriculture and the Agricultural Planning Directors in each country.
- Presentation, consultation and discussion of the Strategy with regional organizations at the GISA meeting held in September 1988 in Honduras which, in addition to contributing to the Strategy, launched a joint effort to identify potential regional programs and projects for each priority area for joint action.

- Presentation of an advanced version of the Strategy to GISA (December 1988, Panama) to procure final comments from the regional agencies and to conclude the consultative stage of the process. Efforts also continued to compile a portfolio of regional project proposals for regional agricultural reactivation.
- Meetings for review, adjustment and technical consultative purposes, in connection with the Strategy, areas for joint action programs, an initial portfolio of projects and institutional mechanisms for implementing the Plan, all held with the countries at the regional level, by way of the Executive Committee and the Technical Committee of CORECA.

This lengthy process of consultation and information-gathering cultivated valuable ideas that have been incorporated into the present version of the Plan, reflecting the consensus reached on the importance of the agricultural sector to the economic and social development of the subregion, as well as the priority joint actions necessary for agricultural reactivation of the subregion and the institutional and financial mechanisms required for its implementation.

It is fitting to clarify that the underlying objective of the Plan of Joint Action refers to identification of common problems which may be overcome by addressing them jointly. In no way does it pretend to enumerate all aspects of national agricultural development strategies. It is also essential to acknowledge the validity of this approach, if this joint effort is to be coherent and meaningful. It seeks to identify common areas where joint action can contribute to the success of national strategies; it does not assume that national strategies are fully compatible with subregional strategy. Accordingly, a strategy for joint action for reactivating the agricultural sector in the CORECA countries proves both necessary and useful to:

- a. Define specific areas for developing joint which serve as a framework for ranking actions to channel cooperation from abroad to the subregion in an orderly fashion.
- b. Increase the countries' bargaining skills, through joint initiatives in key areas such as market access.
- c. Generate economies of scale, to carry out actions which otherwise would not be feasible on a national scale because of the limited size of the countries of the area.
- d. Establish specific mechanisms to facilitate coordination among institutions providing technical and financial cooperation in the region.
- e. Create increased opportunities for specialized production, as well as economic, social and institutional development.

More than a study or a publication or a document, the Plan of Joint Action is a dynamic attempt to tap the countries' potential for joint action to reactivate and develop regional agriculture. This requires an ongoing participatory process which seeks to tailor the Plan, as the need arises, and

to introduce new action proposals over time. To facilitate this process the countries of the area have the valuable organizational support of : the Forum of Ministers, the Executive Committee and the Technical Committee of CORECA, as well as the Inter-institutional Group of the Agricultural Sector (GISA). 2/

In compliance with the stages defined for the preparation of the Plan of Joint Action, the document is divided into five chapters or sections. The first section includes the present chapter. The second contains the strategy for agricultural reactivation, including the key role which the agricultural sector ought to play in the reactivation and economic development of the region. It proposes elements which are central to the strategy and instruments required for its implementation, in addition to identifying priority areas for joint action. The third section discusses priority areas for joint action programs and contains an initial portfolio of regional agricultural projects, including a brief description of each project and the institution of origin. The fourth section identifies institutional mechanisms for implementing the Plan, based on existing regional bodies and forums, and spells out the way in which they could be used to their full advantage to provide the necessary cooperation and to facilitate implementation efforts. This section also describes the financial mechanisms for funding the projects and consolidating the serious regional investment program which is required for reactivating agriculture.

The final section contains notes, annexes and statistical tables to complement the information contained in the principal sections of the document.

Concluding the consultation process at the subregional level, the "Plan of Joint Action in Support of Agricultural Reactivation and Development in the Countries of the Central American Isthmus and the Dominican Republic," as it appears in this document, was approved by the Ninth Regular Meeting of CORECA Ministers, held in San Jose, Costa Rica from April 26-28, 1989, at which time the guidelines for implementation were also approved.

Finally, the document was discussed and approved during the Ninth Regular Meeting of the Executive Committee of IICA, held in San Jose from June 12-16, 1989. At that time, the Executive Committee requested that it be presented for final consideration by the Inter-American Board of Agriculture, which will meet in San Jose, from October 8-13, 1989.

2/ GISA participants include the BCIE, CADESCA, CATIE, ECLAC, CORECA, IICA, OIRSA, UNDP and SIECA. Other agencies are also expected to participate. Its general objective is to present joint proposals concerning the agricultural sector to the Regional Political Forums.

II. STRATEGY FOR AGRICULTURAL REACTIVATION

A. THE CURRENT ECONOMIC AND SOCIAL CLIMATE IN THE CENTRAL AMERICAN ISTHMUS AND THE DOMINICAN REPUBLIC

1. The Economic Climate

1. The severity of the crisis in Central America, Panama and the Dominican Republic becomes evident in a review of certain production and export indicators, the financial situation, and the overall economy of the countries. (1) While GDP at constant prices grew at an average rate of 6.1% between 1960-70, 5.5% between 1970-75 and 3.9% between 1975-80, the 1980-85 period witnessed a modest average of 0.3% for the countries as a whole. And although growth rates increased by 1.7% and 3.1% in 1986 and 1987, respectively, they were incapable of improving prevailing economic and social conditions. This becomes particularly clear when examining per capita growth rates for the 1980-85 period and for 1986 and 1987, namely -2.1%, -0.9% and 0.5%. (2)

2. This decline not only affects the present level of economic activity; it will also take its toll on future production, as evidenced by comparison of levels of investment over the last three decades. Average gross domestic investment as a share of GDP only represented 16.6% --no more than the figure for the 1960s. This is explained by the -2.0% growth rate for the 1980-86 period, as compared to the 8.6% and 5.6% growth rates for the 1961-70 and 1971-80 periods in the seven countries as a whole.

3. The total value of exports also fell during the 1980-85 period, plummeting, in 1985, to US\$ 6.4 billion at current prices for the seven countries --well below 1980 figures. With the exception of Costa Rica and Panama, no appreciable improvement was evidenced in any of the countries in 1986 and 1987. The decline in the total value of exports becomes evident if one compares the average growth rate of exports at current prices for 1980-85 with those for previous periods. Given that there was no comparable reduction in the value of imports for the 1980-86 period, the deficit in the balance of payments' current account rose considerably for all the countries.

4. Analysis of the trade price index, taking 1960 as the base year, reveals considerable deterioration in the terms of trade, taking into account the entire period up until 1985, despite a relative improvement during the latter half of the seventies. This can be attributed, for the most part, to the dramatic fall in primary export prices, which resulted from a decrease in international demand --because of world economic recession and lower consumption levels-- due to protectionist agricultural policies in the developed countries which have diverted supply from the region and to the substitution by synthetic products or their derivatives.

5. At the same time, between 1978 and 1986, outstanding external debt rose by approximately US\$2 billion per year for all of the countries, except in 1983 when it reached US\$4 billion. This past year the figure neared US\$26 billion. The foregoing only adds to the precarious situation of the precarious trade balance situation and implies critical balance of payments problems which seriously impede the prospects of regional development.

6. Lastly, there has been a marked decline in central government income and expenditures. Already in 1980 the fiscal deficit exceeded 1970 levels by 250% in all of the countries under review. While in 1985 Costa Rica, Guatemala, El Salvador, Panama and the Dominican Republic witnessed a relative improvement, they did not succeed in reducing the deficit to 1970 levels. In the case of Nicaragua, this deficit has deteriorated significantly. Budgetary constraints at the national level have had a direct impact on inflation, which has risen sharply during the present decade as compared with previous years.

2. The Social Climate

7. Indicators which demonstrate the effects of the crisis of the eighties on the living conditions of the population under examination are still lacking; however, some conclusions can be drawn from conditions prevailing in 1980. Analysis of the structure of income distribution for the six countries of the Central American Isthmus during this year reveals a high concentration of income among the richest 20% of the society, which, during this time, accumulated between 49% of total income in Costa Rica and 66% in El Salvador. This marks the glaring contrast with the poorest 20% of the population, which only enjoyed an average of between 2% and 5.5% of total income. This situation has deteriorated considerably. Not only because average per capita income is lower in some countries, but because the entire subregion has experienced rises in the consumer price index which are much higher in the eighties than in previous decades, thus reducing the purchasing power of the majority of the population.

8. This decline in purchasing power throughout the subregion has translated into inadequate food intake. Recent studies show that the intake of calories and protein among the less privileged population is falling. (3) In terms of daily intake per inhabitant, some countries in the area are even worse off than in 1970. At the same time, while infant mortality has decreased significantly since 1950, there are signs of a reverse trend in the present decade, particularly in the Central American Isthmus. Moreover, while it is true that the number of doctors per thousand inhabitants has increased, the number of beds per thousand inhabitants has fallen continuously since 1960. Comparison of health care expenditures to GDP reflects the decline in health conditions; in Costa Rica and the Dominican Republic this ratio was less in 1985 than in 1980.

9. With the exception of Costa Rica, all of the countries of the subregion are faced with high illiteracy rates, particularly in the rural sector, where the figures sometimes exceed 60%. Available data reveal no significant improvement in this decade. The low levels of education have limited the opportunities for better living conditions and made it difficult to obtain higher rates of productivity --the key to achieving increased per capita income in the economy. (4)

10. The housing situation continues to be critical throughout the subregion. Except for Costa Rica, where 85% of the dwellings in the 1970s had three or more rooms, 60% to 80% of the dwellings in the remaining countries of the Central American Isthmus had between one and two rooms during this same period. The severity of the problem is even more apparent in view of the fact that in the majority of the countries of the Isthmus more than 50% of the dwellings house five or more occupants. In addition to the housing crisis, there is a

critical lack of drinking water facilities in the rural sector. While in 1979 between 90% and 100% of the urban population of Guatemala, Honduras, Costa Rica and Panama had access to drinking water, only 15.6%, 35.1%, 64% and 63.8% of the rural population of these same countries enjoyed similar services. In Nicaragua and El Salvador access to drinking water in urban areas is also deficient. And even though the rural sector in all of the countries experienced some improvement between 1969 and 1979, during this same period conditions deteriorated in the urban area of El Salvador, Honduras, Nicaragua and Costa Rica.

3. The Political Climate

11. While a series of external economic factors which emerged almost simultaneously between the end of the seventies and the first half of the eighties sparked an economic and social crisis, the political problems besetting the region have had a serious impact on the rate of economic development and on social conditions for the majority of the population. War in El Salvador and Nicaragua has seriously reduced the rates of economic growth, because of destruction of the productive base and infrastructure required for production and marketing and considerable opportunity costs caused by the continuous displacement of the economically active population. Moreover, political conflict in these two countries, as well as in Guatemala, has had a high social cost because of the reduction in income in the war zones.

12. After numerous attempts at achieving peace and development in Central America, the Summit of Central American Presidents, on August 8, 1987, approved the Declaration of Esquipulas II, which promoted several dialogues aimed at forging a lasting peace with the support of the international community. The road is not an easy one; "it requires a persistent and systematic effort to overcome the problems which have impeded growth and heightened the political problems in the subregion". (5) The Esquipulas II accords demonstrate that the five countries of the region are determined to prevent regional disintegration and to keep the ideal of unity alive; they realize that lasting peace is a prerequisite for socioeconomic development in these countries.

13. The link between peace and development, underscored in these presidential accords, has also been stressed by the Ministers of Agriculture of CORECA on numerous occasions; and not only by them, but by their colleagues across the continent in the Declaration of Ottawa. These ideas have been received favorably by the international community, which has expressed its explicit support in major international forums (OAS, United Nations) and is working to provide effective support for the peace process through a series of initiatives currently under way.

14. The almost unprecedented depth and complexity of the crisis besetting the subregion has prompted the countries themselves to assume an active role in reversing this process with the backing of the international community. Accordingly, the crisis represents both a threat and a challenge. In this context, it is fitting to analyze the requirements and alternatives for regional economic development and, more specifically, the role which the agricultural sector can play in reactivating the economies of the Central American Isthmus and the Dominican Republic.

B. TOWARD REACTIVATION OF THE ECONOMIES OF THE CENTRAL AMERICAN ISTHMUS AND THE DOMINICAN REPUBLIC

1. Potential for Overall Reactivation

a. Current viability and regional potential for reactivation and development

15. Joint efforts for achieving a lasting peace increase the prospects for reactivating and developing the economies of the subregion. However, the crisis besetting the area is both serious and complex and, according to some analysts, could conceivably jeopardize the political and economic potential of the countries which make up that subregion. In order to overcome the present situation, strategies have been proposed which reconsider the importance of joint actions and regional integration. It is generally agreed that the creation and consolidation of economic, social and cultural institutions capable of meeting the challenge of development in an increasingly open, competitive and rapidly changing world is feasible only through joint action and regional integration. Only an approach of this kind will create domestic markets which can sustain an efficient economic development process and establish an institutional and organizational base capable of taking advantage of the undergoing technological and productive revolution.

16. The Esquipulas II accords succeeded in creating an atmosphere which rallied increased support from the international community in the subregional development process. However, peace and democracy cannot take root if the economic and social development achieved does not benefit the majority of the population. Therefore, international cooperation plays an important role in that it allows political and financial support "to promote regional projects aimed at achieving economic and social development in Central America --an objective directly linked to the task of producing, preserving and strengthening peace, since economic and social development are the first and foremost causes of this conflict and peace is unattainable without development". (6) Recent efforts undertaken by the international community and its institutions to support the peace process --including the United Nations Special Plan for Economic Cooperation for Central America (PEC), the Joint EEC-Central American Isthmus Commission and the International Commission for the Reconstruction and Economic Development of Central America (ICCARD), as well as new bilateral aid efforts on the part of several European and North American countries, increase the prospects of reactivating the economies of the area and embarking on a process of self-sustained economic and social development. The current crisis not only marks a difficult phase but a unique opportunity for Central America.

17. Because of their proximity to such markets as those of Canada, the United States, Mexico and northern South America, the countries of the Central American Isthmus and the Dominican Republic are in a privileged position to be able to take advantage of their potential to increase trade with other countries. The Caribbean also represents an important prospective trading partner for them, providing they succeed in opening up shipping lines with these countries. Also worthy of mention are existing opportunities for financing and diversifying exports, which have already

enabled some countries to increase their non-traditional exports to third markets over the last five years.

18. The opportunities enumerated above oblige us to reassess and redefine the objectives and tools of development strategies. All these efforts, together with human, financial and physical resources can be channeled effectively on the basis of deeper-seated regional integration and more aggressive and better coordinated policies which enable the countries to take advantage thereof. To this end, the development model of the last three decades must be redefined. Solutions must be sought to financial problems which presently result from growing external debt and the fall in traditional export prices.

b. The importance of re-establishing intraregional trade and the need for joint action for reactivation

19. While the benefits of intraregional trade were not distributed equitably among the members of the Central American Common Market (CACM), (7) transactions among the majority of the countries not only continued but grew dynamically, at least until the first year of this decade. The current decline in intraregional trade can be attributed to the collapse of intra-Central American payment mechanisms, war and unfair competition (subsidies, financing) from third suppliers. The recent decline of the Central American economies, due to the fall in export earnings and the rise in oil prices coupled with a growing external debt, has given rise to exchange rate disequilibrium in all of the countries and, as a result, a lack of confidence in the payment mechanisms which governed intraregional trade. Moreover, the political crisis in Nicaragua and El Salvador has reduced production and trade with the common market. (8)

20. Despite these constraints, intraregional trade is still alive, and even if it lacks the dynamism of the previous decade, the countries have nevertheless expressed their steadfast determination to revive the process. Intraregional cooperation plays an important role in the strategy to increase efficiency in production and promote diversification toward third markets. Regional integration must be promoted to induce certain new and existing industries to grow inward so as to become more competitive by taking advantage of the protected regional market and achieving economies of scale. In effect, increased productivity and efficiency are key to the production process in the establishment of a common market. If an integration process can be established which substitutes imports without creating an anti-export bias, and where net profits are distributed more equitably than in the past, then regional integration could serve to increase efficiency and productivity in production as well as in the use of limited resources. This holds true because: a) it creates an initial demand which allows for greater use of underutilized productive capacity; b) it promotes economies of scale, which reduce production costs, and c) it can encourage coordination of joint investments in infrastructure and transportation, which could increase efficiency in the regional and extraregional trade process. If regional integration promotes the above, the countries could increase the competitiveness of their exports to third markets.

21. However, a proposal to promote intraregional trade cannot be set forth without first restoring confidence in the financial systems of the countries, particularly in those which are most indebted. Some proposals have been made in this regard, such as the creation of a purchasing mechanism for intrazonal debt, which could be implemented with the creation of a special fund financed in part with external resources. (9)

22. Recent efforts by international agencies, the European Economic Community, and other countries in Europe and the Americas to channel financial resources into integration and joint actions in Central America make the re-establishment of the Central American Common Market all the more valuable to the reactivation and overall development of these economies. The United Nations Special Plan for Economic Cooperation for Central America is of particular importance; it clearly outlines the advantages of the integration process in the attainment of greater development in Central America, while providing a general framework and guidelines for the way in which international financial cooperation should allocate resources to strengthen the integration and development process in these countries.

2. The New Challenges of Development

a. **The vulnerability of the economies in light of the external factors of the crisis: the feasibility of reducing dependency and external instability**

23. The development strategy pursued in the sixties and seventies, which sought to promote economic growth by diversifying the external sector, failed to equip the Central American Isthmus and the Dominican Republic to face a serious deterioration of the terms of trade and an increase in debt service and international oil prices. The vulnerability of the economies under analysis, characterized by their limited size, openness and high degree of export concentration, became evident when the rise in oil prices in 1979 coincided with a marked deterioration of primary export prices. This situation became even more apparent with the debt crisis of the eighties.

24. The development strategy promoted since the fifties sought to diversify the export sector and substitute imports to reduce the risks associated with relying on one or two exports whose prices were continuously subject to the vagaries of supply and demand on the one hand, and the need to import the greater part of industrial goods for consumption and production on the other. Efforts to diversify agricultural exports met with success, particularly in the five Central American countries, which succeeded in increasing their cotton, sugar and beef production; by the end of the fifties these represented important export commodities which furthermore helped to reduce dependence on coffee and banana exports to generate foreign exchange. (10) The sixties witnessed the adoption of a policy designed to industrialize the economies of the seven countries through import substitution initially intended to produce domestically for subsequent export to third markets. While this policy was almost exclusively limited to import substitution in the case of Panama and the Dominican Republic, in the Central American countries it had a major impact in terms of diversifying the export sector with the

establishment of a protected common market (CACM). (11) The increase in the rates of growth which took place in the seven countries over the last two decades can thus be attributed to increased agricultural and industrial production which, in conjunction with higher levels of public investment, were stimulated by new export opportunities for the majority of the countries.

25. Despite the relative success enjoyed with the introduction of new export products and the vitality of trade as a result of integration, several factors emerged which attested to the weakness and instability of the development strategy which had been adopted. Even though the share of industrial products in total exports grew --primarily for the countries of the Central American Isthmus-- these products were not exported in significant quantities to third countries; the largest source of foreign exchange for the subregion continued to be agricultural exports. (12) Moreover, diversification of the composition of agricultural exports was not sufficient enough as to permit the countries of the area to cease to depend on one or two products. Lastly, the industrialization process in the seven countries did not produce the desired linkages in the economy, leading to even greater dependence on imports of raw materials and intermediate products required for production; accordingly, when faced with external shocks and low export prices, the room to manoeuvre decreased even further. (13)

26. Given that the economic performance of the countries of the area has always been closely associated with export performance, reactivation of this sector is vital to any proposal for short- or medium-term action. Foreign exchange earnings generated by traditional export products must be increased --via increased volume and improved terms of trade--, and an aggressive short- and medium-term strategy must be designed and implemented which selectively promotes non-traditional exports for third markets. An aggressive market access policy, particularly with respect to markets for non-traditional products, is of key importance, given that the external sector has been deteriorating progressively during the present decade because of greater competition from other producing countries which, combined with a lesser degree of income elasticity of demand, has exerted pressure on the primary commodity prices. In addition, growing protectionism and the development of substitutes for export products from the area by the industrialized countries constitute a structural limitation to the expansion of traditional exports. Therefore, while the latter will continue to bear considerable weight in the short term, long-term strategy should focus on export diversification (see Annexes 1 and 2 for a more detailed analysis of the foreign sector).

27. Initially, export promotion should focus on the production of those goods for which the country already has proven experience, thus enabling it to increase the level of productivity and efficiency in its production and marketing. As for the support offered by the international community, it is important to propose greater access to import markets and better prices for exportable products from the subregion. Export diversification is imperative for increasing value added within the economy and thus achieving a multiplier effect in the development process; this approach will promote linkages aimed at reducing imports of raw materials and intermediate and capital goods. It should be stressed that efficient

expansion and diversification of exports do not require a commitment to absolute liberalization of trade; and while selective export promotion is proposed herein, it should be complemented by different degrees of protection to domestic production which are gradually reduced over time. Lastly, any and every export promotion strategy ought to take into account the conservation and renewal of natural resources. (14)

b. Toward reactivation and self-sustained development with equity

28. An important feature of the development strategy pursued over the last three decades is the fact that despite high growth rates in all the countries the population continued to live with substandard income levels, without sufficient increases in social benefits to better their situation in terms of health, education and housing. In summary, the industrialization and export diversification process did not succeed in significantly changing the existing economic structure in such a way as to lay the groundwork for self-sustained development and achieve an improvement in the quality of life for the greater part of the population. (15)

29. While it has been stressed that export promotion is vital to economic reactivation in the subregion, efforts undertaken in this regard will do little to ensure continuous growth in income and a higher level of well-being if actions leading to greater levels of production and domestic consumption and to improvements in living conditions for the majority of the population are not implemented as well. More equitable distribution of real income, which together with an improvement in living conditions for the greater part of the population creates greater domestic demand, is crucial to reactivating domestic production and achieving self-sustained development. It is also important to promote an industrialization process which brings about greater forward-backward linkages, so as to achieve a more significant level of value added, and incorporates the majority of the population into the production process.

30. While a guaranteed supply of basic foodstuffs is the most pressing short-term objective, in the medium and long term food production should be fomented by means of policies designed to increase supply and promote production specialization. Extreme poverty levels must be reduced, not only by a rise in income and employment opportunities but improvements in health, education and housing facilities for the neediest. However, the satisfaction of basic needs must be viewed as an objective which not only improves the living conditions of the population but increases productivity levels, since a labor force with appropriate levels of health and education is a valuable, if not indispensable asset when modernizing production. (16)

c. Increased productivity and efficiency

31. Even though the subregion as a whole experienced substantial rates of growth in the sixties and seventies, production and economic management were not effected in the most efficient fashion; financial and productive resources were not allocated on the basis of economic benefits. In times of growing market competition and limited domestic resources it is imperative that the economies of the Central American Isthmus and the

Dominican Republic attach greater importance than in the past to increasing productivity and efficiency in the production process, without overlooking the basic objective of achieving greater equity in the distribution of assets and higher levels of health, education and housing. The aim of achieving greater efficiency is not incompatible with that of achieving improved living conditions for the majority of the population. For example, support of the small-farmer agricultural development process demands channeling resources to increase production and productivity levels and to replace low yield crops with more lucrative ones to increase yields and raise income levels.

32. An important factor for increasing productivity and efficiency in the production process is the generation and transfer of technology, which must also be ecologically sound. What is more, state intervention must be coordinated as efficiently as possible with market forces, to breach the gap between private and social prices. It is also important to coordinate private and public investments, since increased private production and economic recovery are conditioned by bottlenecks in the marketing structure due to destruction and lack of basic infrastructure.

3. Factors Affecting Reactivation

a. **Foreign debt: an obstacle to reactivation and development**

33. As a result of the fall in international export prices and the rise in oil prices, the countries of the area could not continue to honor their commitments with foreign creditors. At the same time, negative expectations created by the crisis, combined with a deteriorating political situation and overvalued currencies, promoted substantial capital flight and aggravated the balance of payments situation. As a result, all of the countries in the region experienced sizeable losses in foreign exchange reserves and reductions in tax revenue, which naturally led to an even greater fiscal deficit. (17) In view of the obstacles involved in cutting back on public spending, since a drastic measure of this type would lead to a social crisis, loans from foreign banks were also used to cover domestic public debt which had already reached unmanageable levels.

34. The increasing burden of the debt service and the deterioration of prices for agroexports has limited the availability of foreign exchange for importing the capital goods and inputs needed to step up the accumulation process in the economy. Increasingly, new resources are diverted to restoring financial credibility rather than to funding urgent development programs, thereby reducing human and financial resources which could be channeled by the public sector to achieve self-sustained development. Therefore, in order to implement policies to bring about the reactivation and development of the economies of the Central American Isthmus and the Dominican Republic, new solutions to the external debt problem facing the countries must be sought. (18)

35. It is important to focus on joint actions which increase the bargaining power of the countries. Bearing in mind that the extent of the debt in these countries limits their options to procure additional external resources required for the development process, mechanisms are

being sought to convert external debt with private creditors. One proposal entails converting private debt into local currency. These resources could be used to set up a Trust Fund to finance development projects. A mechanism of this kind has the advantage of reducing external debt, without using "hard" currency, because of the discount offered by secondary markets. In order to solve the problem of bilateral debt, it would be more advantageous to propose a collective agreement between the creditors and the subregion as a block, to recycle part of the debt through the creation of subregional funds; thereafter, these funds could be used to support stabilization and adjustment programs, finance inputs for production, and support mechanisms which facilitate intraregional trade. Lastly, in the case of Central America in particular, it has been proposed that part of the recycled debt be directed to the Central American Bank for Economic Integration (BCIE) to fund long-term development projects. (19)

36. Given that the external debt problem in Central America has contributed significantly to the collapse of the payment system for intraregional trade, any proposal to re-establish the financial system should include a joint proposal for addressing the problem. It will be impossible to restore confidence in the financial system governing transactions in the area until such time as the debt problem in the countries is resolved.

b. Macroeconomic adjustment and stabilization policies

37. Growing pressure arising from debt service, coupled with the need to solve the balance of payments imbalance and the fiscal deficit problems, has led most of the countries to adopt adjustment and stabilization programs (see Annex 3 for further details). The implementation of these programs certainly calls for new rules of the game for the reactivation and development of the economies of the Central American Isthmus and the Dominican Republic, in view of the growing role of macroeconomic variables in sectoral policy. In almost every case, adjustment and stabilization policies have had a major impact in terms of "external adjustment"; but the price has been a strong recession which would appear incompatible with social demands and development requirements. While such policies have a proper place in the effort to reduce fiscal deficit and promote efficient production (otherwise a very high opportunity cost must be paid in the employment of financial and productive resources in the sector), the overall effect of liberalizing the economy must not be overlooked. In other words, attention must be paid not only to the financial effects of such measures, but to their social and economic impact. The desire to abolish subsidized consumer prices in order to promote production and reduce government costs was a measure which, in some countries, led initially to a deterioration in real wages and tended to concentrate wealth. (20)

38. Adjustment and stabilization policies are designed primarily to increase economic efficiency, without taking into account structural problems in the economies of the subregion. Therefore, it is not at all strange that the biggest shortcoming of these policies is the impact they have on income distribution and poverty levels. To propose increased efficiency and productivity simply through the price system, without

considering other structural factors which have also distorted prices because of the inefficient use of resources and factors, may not provide the solution to the twofold problem at hand: that of increasing production efficiency and improving the living conditions of the majority of the population.

39. The reinstatement of the Central American Common Market and of intraregional trade requires that agreement be reached on policies that will make integration possible. Furthermore, since adjustment and stabilization policies are applied by the countries individually, it is necessary to establish a regional framework for negotiating these programs. On the one hand, intraregional trade within a free trade zone is only possible if the countries establish a common tariff. (21) On the other, while the re-establishment of the payments system is a prerequisite for initiating the integration process in the short term, it is imperative to reach consensus on policies to place the countries on equal footing in terms of competitiveness. (22)

C. THE ROLE OF THE AGRICULTURAL SECTOR IN ECONOMIC REACTIVATION AND DEVELOPMENT

1. The Relative Importance of the Agricultural Sector and its Potential for Economic Reactivation

a. The relative importance of the agricultural sector

40. The preceding chapters discussed some of the key components for economic reactivation and development in the subregion. Now it is fitting to analyze the role which the agricultural sector should play in this process and its relative importance among the efforts to be undertaken. With the exception of Panama, agricultural value added, as a share of gross domestic product, is relatively more important in the remaining six countries of the area under analysis than in most of Latin America. The population involved in the sector represents a much greater part of the total population for these seven countries than for Latin America as a whole. While in 1986 an average of 31% of the Latin American population lived in the rural sector, the rural population in the more urbanized countries of the area (Nicaragua, Panama and the Dominican Republic) represented somewhere between 43% and 49%; in Costa Rica, El Salvador, Guatemala and Honduras it accounted for 50.5%, 58.2%, 67.3% and 59.6%, respectively. Moreover, the agricultural sector provides a substantial part of total employment, particularly in El Salvador, Guatemala and Honduras, where in 1980 it employed between 52% and 57% of the work force.

41. The agricultural sector also plays a vital role through the generation of foreign exchange and tax revenue. All of the countries rely on six agricultural products (coffee, bananas, cotton, sugar, beef and cacao) for the accrual of foreign exchange; in 1985 the most dependent were Nicaragua and Honduras, where agroexports accounted for 76% and 70% respectively of the total value of exports. In Costa Rica, El Salvador, Guatemala, the Dominican Republic and Panama, the respective shares were 63%, 60%, 50%, 41% and 40%. Government income in the seven countries depends largely on traditional agricultural exports; export taxes on

coffee alone represent the greater part of export taxes in some of the countries (see Annex 1 for further details).

42. The relative importance of agroexports becomes evident when considering agricultural production. A study analyzing the economic importance of the agricultural sector in 13 countries compared agricultural exports with the gross value of sectoral production; its findings clearly revealed the role of export agriculture. In the case of Costa Rica and Guatemala, 47% and 41% of all agricultural production is export-related. The figure for Nicaragua --27%-- is also relatively high, given that the average for the 13 countries is only slightly over 16%. (23)

b. The potential of the agricultural sector for economic reactivation

43. It should be borne in mind that agricultural exports, in terms of the growth of non-traditional exports in this decade (activity which, in order of importance, has been the most successful in the Dominican Republic, Costa Rica, Guatemala and Honduras), have become extremely important for two basic reasons: i) agricultural non-traditional exports, for the most part, have grown faster, in relative terms, in the "successful" countries; ii) because of all non-traditional exports, agricultural products have involved a greater degree of value added (see Annex 2 for further details).

44. The potential of the agricultural sector over other economic activities to generate value added has been proven. (24) This is an important factor, since manufacturing, promoted in the subregion within the framework of industrialization through import substitution, had a very limited multiplier effect on the economy. It not only failed to create sufficient "backward" linkages in the production process, but increased dependence on imports of intermediate goods and raw materials. Therefore, focusing on an "agricultural-based industrialization" strategy provides an opportunity to capitalize domestically on the multiplier effects of industrial development. This holds true for the countries of the area, whose value added of agroindustry, as a share of value added in the manufacturing sector, still exceeds, by a substantial degree, that of the other Latin American countries, despite the fact that this share diminished somewhat during the industrialization-import substitution process of the sixties and seventies. While in 1960 the share of agroindustry in industrial value added was approximately 64% and 86% in the Central American Isthmus and the Dominican Republic respectively, in 1980 these figures fell to 52% and 68%. However, in 1980 the share for the other Latin American countries in the study fluctuated between 18% and 39% --a much lower percentage than that of the countries of the area. (25)

45. While the sixties and seventies witnessed relative expansion of the industrial and service sectors in the region, in the present decade it is the agricultural sector which has performed better than the rest of the economy, despite the economic and social crisis besetting the countries. This is clearly reflected by growth indicators and can be attributed to the fact that the policies adopted to promote industrialization through import substitution during the two previous decades generated an anti-agriculture bias. This situation has turned around during the

present adjustment period, in which the agricultural sector has proven to be the most dynamic of the economy. Agricultural exports in particular have benefitted more, in relative terms, because of exchange rate adjustments implemented in almost all of the countries. The reduction of the anti-export bias has in turn created conditions for import substitution in food production, which explains the relatively favorable behavior of the rates of growth for these products during the decade in course. (26)

46. In Panama, where the current political crisis has paralyzed the economy and increased unemployment and poverty levels, the agricultural sector is being reassessed in terms of the role it should play in a country in which the service sector has traditionally been the hub of economic and social development. Even though agricultural production does not play a leading role in the economy, as is the case in the rest of the countries under review, the vulnerability of the service sector, owing to its substantial external dependence, highlights the potential of the agricultural sector to serve as a driving force behind economic reactivation in the pursuit of self-sustained and independent development.

47. Lastly, it is important to recognize the vast potential of the agricultural sector which exists in some countries because of structural changes related to land tenure, particularly in Nicaragua and El Salvador --countries which have pursued an agrarian reform process during this decade. In Nicaragua, ever since the Agrarian Reform Law of 1981 became operational, a total of almost 1.3 million manzanas were distributed to 68,435 families (according to April 1987 data). In addition, in 1986, nationalized land belonging to large-scale state farms totalled slightly over 1 million manzanas, and the quantity of land distributed for the creation of cooperatives represented approximately 1.7 million manzanas, equivalent to 13% and 21% respectively of all available land. Land corresponding to multi-family farms, which fell from 82.5% in 1978 to 52.1%, has a vast potential for incorporating future small-farm production and generating new sources of employment through the development of agricultural projects. In El Salvador, the agrarian reform process of the eighties benefitted approximately 35,000 families in Phase I and 45,000 families in Phase 3. Bearing in mind that apart from the reformed sector there are some 222,000 families incorporated as small farmers and "minifundistas", the additional families represent a sizeable increase in the number of producers in this sector. Moreover, in 1988 a law was approved to launch stage two of the agrarian reform, which seeks to distribute land consisting of between 140 and 500 ha. It is believed that there are still some 60,000 to 70,000 ha in this country which have not been distributed in the reformed sector and approximately 200,000 ha not being used in the private sector. The idle land of the private sector could be distributed through the "Banco de Tierra" (Land Bank) project, which involves a mechanism whereby landowners voluntarily sell their land. (27)

48. Despite the fact that the other countries have not carried out an agrarian reform as recent or as extensive as Nicaragua and El Salvador, significant changes are taking place which could potentially reactivate small-farm production. In the Dominican Republic, where a gradual reform has been undertaken over the last two decades, by August 1987 small-farm

settlements occupied roughly 405,500 ..., benefitting 73,316 families. This land distribution process has become extremely important of late; between August 1986 and March 1988, 5,156 families have benefitted from new settlements and reconditioning of previously distributed land. Over the course of the year, 5,668 additional families are expected to benefit thereby. In Costa Rica a total of approximately 33,000 families benefitted from land purchases effected by the Agrarian Development Institute between 1963 and 1986. In Honduras, the agrarian reform carried out by the National Agrarian Institute benefitted a total of 52,188 families between 1962 and 1984; during the 1982-84 period alone more than 13,000 families were endowed with land. (28)

2. Essential Facts to Consider for Agricultural Reactivation

49. Despite the relative importance of the agricultural sector in the economies of the subregion, there are short-term and structural obstacles which prevent the potential of the sector from being fully utilized as a force to reactivate and develop the economies. The economic, social and political crises besetting the countries in the present decade have had a negative effect on agricultural production and have impeded the mobilization of financial resources toward this sector. Low international prices, market saturation and substitution by other products, combined with the destruction of the agricultural sector as a result of armed conflicts, have hampered prospects for continued expansion of the traditional agroexport subsector. Also, structural impediments have prevented most of the rural population from benefitting from limited financial and technological resources and from factors of production. These distortions make it difficult to achieve the levels of productivity and efficiency required to reactivate the economies and create conditions for self-sustained development with greater equity.

50. These transitory and structural factors besetting the agricultural sector, which impede the efficient achievement of higher levels of production and productivity, have had a negative impact on the socioeconomic conditions of the rural population. In 1980, in the Central American Isthmus alone, 25.7% of the total population lived in extreme poverty in the urban area; the incidence of rural poverty for that same year was 46.2%. If one adds the portion of the population which, while not living in extreme poverty, is nevertheless incapable of meeting its basic needs, then the degree of poverty in the agricultural sector affects approximately 70% of that population. (29) According to recent studies on the agricultural sector, everything seems to suggest that poverty levels have risen even more in the present decade. (30) The same situation has been detected in the Dominican Republic where, in the latter half of the seventies, the average income of a rural family was half that of an urban family. Most likely this difference has been accentuated in the eighties, since the terms of trade between rural producers and urban consumers have clearly been unfavorable for the former. (31)

a. Solving the political crisis: prerequisite for reactivating agricultural production

51. As indicated earlier, the political crisis in El Salvador and Nicaragua have had a critical impact on the economic growth and social conditions of the majority of the population. It is in the agricultural sector that the political crisis has had its most devastating effect,

reducing the production of foodstuffs and exports products. In Nicaragua, for example, a good part of beef and corn production takes place directly in the war zone. Close to 150 cooperatives have been destroyed. Some 2,000 small farmers have died and there are 250,000 internally displaced persons. This represents a very high social cost and a decrease in the manpower required to achieve acceptable levels of production, and has occasioned considerable losses, for example, in coffee harvests. In El Salvador, it is estimated that by the end of 1987 total war-related losses for cooperatives in the reformed sector neared 53 million colones; 33.6% of these losses were due to destruction and abandonment of crops attributed to violent causes, 12.9% to destruction of infrastructure, 10.8% to destruction of agricultural machinery and storage facilities, and 42.6% to safe-keeping fees which the cooperatives have had to pay with credit originally earmarked for production purposes. Between 1984 and 1987, cotton production was most effected, followed, in order of importance, by coffee and corn. Total wages unpaid exceeded 10 million colones during this same period. In cotton production alone more than 7 million colones were lost. (32)

52. Accordingly, a prerequisite for reactivating the economy and fomenting self-sustained development is an end to the political crisis. The peace accords signed by the Central American countries mark a step in the right direction, but obstacles remain which make it difficult to lay the groundwork for peace and democracy in the Central American Isthmus.

b. Mobilizing resources for the agricultural sector

53. The political conflicts in some countries, together with the debt problem and a deterioration in the terms of trade, have limited the availability of resources needed to reactivate the agricultural sector. During this decade, all of the countries are faced with the problem of limited foreign exchange to import agricultural inputs and capital goods. Negotiation of new loans centers around restoring financial credibility rather than channelling fresh funds to finance investments required in the sector. The political problems in some countries --such as the war in Nicaragua and El Salvador and the financial squeeze in Panama due to political unrest-- have depleted even further the scarce resources which could have been allocated to the sector. (33) Lastly, despite the importance of agriculture in these countries and its potential for reactivating the economies of the area, the sector in general has been allocated a relatively lesser amount of resources than other sectors.

54. In view of these limitations, the sector must be strengthened with respect to the rest of the economy and investments must be coordinated in the most efficient way, such that both agricultural production and rural development will benefit thereby. External cooperation gains importance, not only as a means of alleviating the basic causes of the crisis, through projects which improve living conditions for the majority of the population, thus increasing the viability of forging a lasting peace, but also as a source of investment for the sector, in order to make full use of the sector's potential for economic and social reactivation. However, neither foreign assistance nor a solution to the debt problem will aid the reactivation and development process for these economies, if the countries do not first design instruments to mobilize domestic resources in such a

way as to benefit the most marginalized group of the agricultural productive sector.

c. External market conditions: an obstacle to agroexports

55. Even though agroexports play an important role in producing foreign exchange and tax revenues, at the end of the 1970s income from this activity began to fall as a result of deteriorating international prices for these commodities. Faced with the prospect of further deterioration, the total land area planted with crops destined for the export market expanded at a slower pace than during the last two decades. In some instances there was even a decrease in the production of some of these products (this was particularly true for cotton and sugar). (34)

56. Primary commodity prices have remained depressed for a long time and prospects for their improvement in the medium term are grim. It should be recalled that new technologies have been developed to facilitate production and transportation of products which can readily replace current exports. These technological changes are combined with protectionist measures applied by existing and potential markets, such as North America, Europe and Japan, to increase their self-sufficiency and protect domestic farmers. In some cases, non-tariff barriers have been introduced, limiting the growth of non-traditional agricultural exports which figure in the programs of the Caribbean Basin Initiative and the Generalized System of Preferences; this creates uncertainty in terms of the real risks involved in investments of this kind. Technological change and tariff and non-tariff barriers, coupled with the already significant degree of saturation in primary commodity markets, only add to the problem of foreign market access (see Annex 1).

d. Demographic growth and food production for domestic consumption

57. The situation in the agricultural sector is even more alarming if an analysis is made of the evolution of food production for domestic consumption, which has expanded even more slowly than production in the agroexport subsector. Comparison of agricultural production figures for the beginning of the sixties with those of the mid-eighties clearly shows that the arable land, where almost all of the foodstuffs for domestic consumption is produced, shrank, in absolute terms, in some of the seven countries examined here; only Guatemala and the Dominican Republic witnessed a substantial increase in the total area of arable land. Moreover, the land allocated for perennial crops, which include a great number of export products, has expanded in all the countries, except for El Salvador and Panama, where it has remained relatively unchanged.

58. This becomes evident when comparing the area planted with agroexports with that cultivated for domestic market production, as is the case of basic grains. In 1980, total land area planted with corn, beans, rice and sorghum witnessed an increase of 6.5%, 7.3%, 45.8% and 25.8% respectively compared to 1960 levels. These figures contrast sharply with those for cotton, coffee and sugar cane which, during the same period rose by 77.7%, 66.5% and 84.8%. Even by 1975 the total land area planted with cotton was already 147% greater than in 1960. Moreover, grasslands and permanent pastures have increased substantially, particularly in Costa Rica,

Honduras, Nicaragua and the Dominican Republic, more than doubling in the first and last countries. Only in El Salvador did this growth remain stable; in Guatemala and Panama it increased relatively less than in the other countries. This expansion comes about in response to the rapid growth of cattle herds for the beef export market in all the countries under review. (35) The total land area planted with basic grains continued to grow slowly during the eighties, except in the case of beans, which witnessed unprecedented growth during this period. However, the high rates of growth in bean production were not sufficient to supply the domestic market and reduce imports of this product.

59. The situation in terms of availability of basic grains for domestic consumption is not particularly promising, if one compares growth rates of production with those of the population. For example, there is no doubt that, in the Central American Isthmus, increased corn production has been unable to meet the needs of a growing population. What is more, while rice and sorghum production increased, in relative terms, between 1960 and 1980, as did bean and sorghum production during the present decade, the countries have not been able to achieve self-sufficiency in basic grain production, except in the case of sorghum. (36) A similar situation has been observed in the Dominican Republic, where production of certain basic grains has not kept pace with the growth rate of the population. (37)

60. Accordingly, net imports of basic grains have risen considerably, compared with import levels in the sixties and seventies. As for other foodstuffs for domestic consumption, practically all the countries of the subregion are self-sufficient only in the production of fruit, legumes and vegetables, areas in which they have become important net exporters, particularly during the decade in course. The only exception is El Salvador, which is a net importer of these products. However, in the case of dairy products and animal and vegetable fats and oils, all the countries of the area, without exception, have become net importers. The gravity of the situation is reflected by the fact that the seven countries under examination were practically self-sufficient in the production of all basic foodstuffs for domestic consumption during the sixties, and that net imports have increased especially during the eighties.

61. A good part of food imports consists of food aid which, during the present decade, has gained much importance. If one considers the food aid channelled through the World Food Programme (WFP), one can see that the greater part of these imports consists largely of wheat, followed by secondary cereals, vegetable oil, rice, powdered milk and other dairy products. Panama is the only country in the subregion which has not benefitted to any substantial degree from the WFP. The amount of aid has increased considerably during the eighties. With respect to wheat, between 1975 and 1986 the quantity rose, in millions of tons, from 3.3 to 28.6 for Guatemala, from 0.4 to 206.7 for El Salvador, from 12.4 to 127.8 for Honduras, from 0.3 to 16.8 for Nicaragua, from 0.4 to 118.2 for Costa Rica and from 3.4 to 99.4 for the Dominican Republic. As for other foodstuffs, there has been an increase in secondary cereal assistance, particularly to Guatemala, El Salvador, Nicaragua, Costa Rica and the Dominican Republic; vegetable oil to Guatemala, El Salvador and the Dominican Republic and powdered milk to Guatemala, El Salvador, Honduras

and the Dominican Republic. There was also increased assistance in rice supplies to El Salvador and the Dominican Republic.

62. While food aid meets the needs of low-income countries with food shortages, alleviating hunger in light of emergencies and natural disasters and giving the poor access to food (another objective of such assistance is to provide balance of payments support and reduce unemployment by paying for certain services with food), it can actually be detrimental to agricultural production over the medium and long term in that it causes distortions in relative prices and leads to changes in patterns of consumption. This has proven to be the case with the replacement of corn, roots and tubers by relatively greater consumption of wheat. In the Dominican Republic, vegetable oil imports through food aid channels have considerably reduced important domestic production of peanut oil. (38)

e. **Yields, and the allocation of financial and technological resources for agricultural production**

63. The allocation of resources is only one factor which attests to the relative success of exports over products grown for domestic consumption. Financial resources have been allocated preferentially to the agroexport subsector, and to such a degree that in Central America, at the beginning of this decade, approximately 90% of the loans granted by various banks were channelled to increase export production. (39) Most of this credit is given to large-scale producers, enabling them to make use of existing technology and achieve much higher yields. (49) It should be pointed out that in Costa Rica, yields are much higher than in other countries, since small- and medium-size farmers have easy access to financing and, as a consequence, are able to take advantage of available technology. El Salvador differs somewhat from the rest of the region in that its reformed sector has higher levels of production than larger farms for some exports, such as coffee and sugar cane.

64. Generally speaking, greater access to financial and technological resources in the agroexport subsector has meant greater yields vis-a-vis the rest of the world. Coffee is a perfect example. Practically all the countries have per hectare yields which surpass those of the large coffee-producing countries such as Brazil, Colombia and Mexico. Productivity is almost twice as high in Costa Rica and El Salvador; Guatemala and Nicaragua are on par with Colombia, which is the most productive non-Central American coffee producer. With respect to sugar cane production, measured in yields per hectare, Guatemala and El Salvador lead the other Latin American countries. Costa Rica, Nicaragua and the Dominican Republic, however, show acceptable yields and can be relatively competitive in the international market. (41) During the seventies, cotton production was the most outstanding example of productivity; El Salvador and Guatemala achieved the highest yields per hectare in the world. (42)

65. While financing for the production of foodstuffs for domestic consumption is deficient, since these resources are channelled for the most part to agroexports, the limited amount of credit destined, for basic grain production, for example, also varies according to the size of the

producer and the priority attached to a specific crop. Unlike Nicaragua, where credit is channelled for all four basic grains on equal terms, Costa Rica and El Salvador tend to finance rice and sorghum production relatively more, which for the most part is undertaken by large producers. This same bias can be seen in rice production in Guatemala, Honduras and Panama. In these countries, rice, unlike corn and beans, is produced on large-scale farms. (43) Thus, in almost all of the Central American Isthmus, small farmers are at a disadvantage with respect to credit facilities. The situation becomes somewhat different in the Dominican Republic, since most of the financing for production of foodstuffs for domestic consumption goes to rice production which happens to be produced by small farmers. The concentration of credit availability in rice and sorghum production has discouraged the production of other basic grains, particularly in countries which have adopted sectoral policies to reduce subsidies and liberalize prices for these products. (44)

66. As a result, most of the technology generated has benefitted the production of larger farms. The degree of mechanization in the production of rice and sorghum, generally grown on large farms, is higher than that for corn and beans, which in all of the countries under review are grown primarily by small farmers. (45) It is clear how the channeling of technology toward large basic grain producers, together with credit facilities, has enabled this sector to increase its productivity. In those countries where more data is available on the subject (Guatemala and Costa Rica), it is evident that, with the exception of the smallest farms, which intensively cultivate the limited land available in order to subsist, the multi-family farms clearly obtain higher yields. (46)

f. Rural poverty, employment and rural/urban migration

67. In addition to the lack of basic foodstuffs produced domestically, extreme poverty is much more widespread in the rural than in the urban sector. This has led to large-scale migration to urban sectors, which rose from an average of 33% in 1960 to 47% in 1986 for the seven countries.

68. The growth rate of the population and the speed with which migration to urban centers is occurring have precipitated the creation of an informal urban sector as a refuge for the unemployed, creating even greater food demands. (47) The production of basic foodstuffs must be increased, since the precarious budgets of the countries are unable to meet the needs of the urban sector. Moreover, no country in the area has succeeded in developing an alternative sector capable of subsidizing food consumption. Panama is the only exception; nevertheless, it still has had to pursue greater self-sufficiency in view of the external vulnerability of the service sector.

69. The high level of rural poverty is intimately linked to the manpower requirements of the agricultural sector, which has been unable to create enough jobs to keep pace with the growth of the rural population. Even though the share of the economically active population (EAP) in the agricultural sector represents -- except in the case of Panama -- a higher percentage than in all other economic activities in the respective countries, this percentage has fallen considerably since the fifties. In

1950, 68% of the EAP of the Central American Isthmus worked in the agricultural sector; in 1986, this figure fell to 41%, while participation in other economic activities continued to rise. The most notable changes took place in El Salvador, the Dominican Republic, Nicaragua and Panama, where agricultural EAP, as compared with total EAP, fell by more than 20% during the 1960-86 period. This reduction in agricultural EAP went hand in hand with a decrease in the agricultural population vis-a-vis total population, particularly in the four countries cited above.

70. In addition to open unemployment, there is a considerable degree of underemployment which must be taken into account when evaluating the degree of poverty in the rural sector. For example, it is thought that in some of the countries of the area the level of underemployment is greater among small farmers than among landless farmers, since the former have to take care of their land and cannot move about in search of alternative employment opportunities. Nevertheless, the limited productivity of the small farmers is such that they cannot even achieve minimum subsistence levels and are often forced to seek employment in agroexport production. (48)

71. There is a direct relationship between available manpower and wage levels in the agricultural sector, in that the opportunity costs for the rural population are less than the effort entailed in emigrating to the city where there are no guarantees. In some extreme cases imported labor has been used, since the local population has refused to work for wages below the minimum wage in the sector. (49) Moreover, the use of the land is intimately linked to the generation of employment in the agricultural sector. The fact that the use of grasslands and permanent pastures has grown relatively faster in the majority of the countries of the area than the use of arable land and land cultivated with perennial crops, reflects the magnitude of the employment problem. Not only is cattle production extensive and for the most part unproductive, but it only creates a limited amount of employment opportunities and is far from being labor-intensive. (50)

g. Ecological limitations to expansion of the agricultural frontier

72. One policy carried out in some of the countries of the area has been to expand the agricultural frontier by settling previously uncultivated land. Unlike in El Salvador and the Dominican Republic, where very little virgin land remains for settlement purposes and the effects of deforestation can be felt nationwide, in the other countries new lands are continuously being incorporated into the agricultural production process. The main objective of this government policy is to give land to the small farmer, with the purpose of mitigating social tensions in the agricultural sector. (51)

73. One of the basic problems for the economies of the subregion is extensive deforestation and increasing soil degradation. While the lumber industry and the need for firewood are important factors accounting for this deforestation, the principal cause has been the expansion of the agricultural frontier because of the demand for land both in connection with the settlement of small farmers and cattle-raising. These two activities are closely interrelated, since it is customary for the

settlers to employ slash and burn techniques before planting and the land ends up being used, after some years, for grazing purposes. (52)

74. Due to extensive deforestation and the encroachment of cattle grazing and agriculture into the mountains (both to a large extent as a direct or indirect result of the land tenure system), combined with an almost complete lack of soil conservation methods and appropriate management techniques, the problems of deforestation and soil degradation have reached the critical stage in all the countries. (53) These problems also point to the dangers of expanding even further the agricultural frontier. In effect, the basic problem of agricultural production in the subregion has been one of growing exploitation and expansion of new productive land, more than improvement in the productivity of the land per se. (54)

75. Therefore, there are already very few prospects for continued expansion of the agricultural frontier through the incorporation of fertile valleys into agricultural production, as has been the case in the Valle del General in Costa Rica. The frontier regions which remain unsettled, such as those on the Atlantic slope of the Central American Isthmus, are an obstacle in that there are few possibilities for achieving productive agriculture, since the land is settled and farmed by small farmers who employ massive deforestation techniques and traditional farming practices. This Atlantic region is worthy of special attention for its sustained development, so that a balance is established between the conservation of natural resources and the cultivation of perennial crops, such as cacao, rubber, African palm, heart of palm, etc. Although it is true that Panama, Nicaragua and Honduras have vast forest reserves and enjoy a large lumber industry in relation to the rest of the subregion, the ecological problem resulting from deforestation has also made itself felt in these countries.

h. Greater access of small farmers to land to promote reactivation of the agricultural sector

76. The decrease in the size of the rural population and the agricultural economically active population (EAP), the shortage of basic foodstuffs, as well as the poor performance by the small farmer and the deterioration of social conditions in the sector, are all attributable to structural factors which govern the agricultural sector of the economies of the Central American Isthmus and the Dominican Republic. Historically, the structure of the land tenure system in these countries has been characterized not only by greater allocation of available factors and resources to larger landholdings, but by marginalization of the small farmer in terms of access to these factors and resources. (55) The relegation of the small farmer to less fertile land --given the expansion of the agroexport subsector--, the inefficient and irrational use of productive land, and the lack of a clear policy to help channel available resources to the neediest farmers of the agricultural sector are structural problems which have impeded rural development in these countries and resulted from land tenure practices.

77. During the seventies, Guatemala, El Salvador, Honduras and the Dominican Republic experienced even further concentration of land. In these four countries, as a whole, more than 50% of the land belonged to

only 2.5% of all multi-family farms. While the sub-family farms in these same countries contain more land, they also have the greatest number of farms incorporated therein. In the case of Costa Rica, Nicaragua and Panama, there was a relatively higher amount of land belonging to multi-family farms than in the other four countries (rising on the average to more than 75% of the total area of available land, but distributed among a much greater number of farms of this type). As is the case in the other countries, the fragmentation of small holdings can be seen in the last three where more than 45% of the sub-family farms own only 2.5% of the land. (56)

78. Despite favorable changes in the land tenure system during the present decade, particularly in Nicaragua and El Salvador, the region is still beset with the problem of the minifundio, poverty and the growth of important sectors of the rural population without means of production or employment. This situation, aggravated by the widespread crisis in the region, clearly illustrates the shortcomings of the the majority of the agrarian reform processes. (57) What is more, some countries continue to experience even greater concentration and fragmentation of the land.

79. While the incorporation of new lands through the expansion of the agricultural frontier has allowed the small farmer to increase his levels of production, it is also true that the settlement process has led to greater concentration of land and fragmentation of small holdings, since the greater incorporation of settled land has resulted in an expansion of grasslands and permanent pastures. This expansion has had a negative effect on production for the domestic market, since greater concentration of land has entailed a reduction in basic grain production. (58)

80. Even though the relative ease with which large producers can obtain financing and make use of existing technology has enabled them to attain higher levels of productivity than other less privileged producers, it has often been the case that resources allocated primarily to the agroexport sector -- made up for the most part of large holdings -- have been used inefficiently. Cattle production, for example, is conducted extensively, despite the fact that a good part of the land devoted thereto is very fertile and would prove extremely productive for farming. As a result, while approximately half of the agricultural area of the Central American Isthmus is made up of grasslands and vast pastures, less than 10% is used for basic grain production. (59)

81. Therefore, greater access to land for the small farmer will promote reactivation of the sector, not only by improving the well-being of the rural poor, but by improving overall production efficiency. Further incorporation of small farmers into the land tenure system, coupled with implementation of mechanisms to facilitate land ownership titles and small farmer organization, will strengthen the bargaining power of the small farmer in the procurement of credit and technology which are vital to increasing the productivity and efficiency of his production. In addition to the foregoing, small farmer enterprises, organized as associations, cooperatives, community enterprises and other associative enterprises, which already constitute a part of the economy of social concern, referred to by some as the "third sector", have good prospects for growth and development, and, as such, should be promoted.

3. Contribution of the Sector to the Overall Reactivation and Development Strategy: Key Factors and Objectives

- a. **Income redistribution and development of the domestic market by promoting production levels of the small-farm economy: central to overall reactivation and development strategy**

82. The importance of the agricultural sector in the reactivation of the subregional economy is more apparent when the role of the small-farm economy in the economic development of the countries under review is taken into consideration. Not only because of the number of small farmers but because of the effective contribution these farmers make to overall food production, including agroexports, in their respective countries. Small farmers, be they individuals or cooperative members, make a significant contribution to the production of basic grains for domestic consumption and of certain agroexports. For that reason, when proposing a reactivation and development strategy, it is important to consider land use by product.

83. On the average, more than 50% of corn and bean production (two important basic grains in the diet of the majority of the countries in this study) is produced in farms of less than 10 ha. This is particularly true of Guatemala, El Salvador, Honduras and Panama. In Nicaragua, approximately 95% of the production of these two grains takes place on cooperatives and small- and medium-scale farms. Only in Costa Rica are they produced primarily by farms of between 10 ha and 50 ha. The structure changes entirely for rice and sorghum production, the greater part of which is conducted on large landholdings. In Nicaragua, more than 80% of the rice and 55% of the sorghum are produced on large private farms and state enterprises. In Panama, sorghum is not produced in farms of less than 20 ha. Only in Honduras does this practice vary radically from the other countries dealt with in the study; in this country a large part of the production comes from relatively smaller farms. In Panama, as well, more than 60% of the rice is produced by farms totalling less than 20 ha. (60)

84. In some countries small-farm production constitutes the greater part of agricultural export production. In Costa Rica and Honduras, for example, 29.7% and 25.5% of total agroexport production is carried out by small farmers, (61) while in the Dominican Republic sugar is produced by large multi-family farms --the majority of which are State-owned-- and 60% of the area cultivated with coffee is found in farms of less than 6.25 ha. In Honduras, more than 30% of coffee production takes place in holdings of less than 10 ha, while approximately 95% of banana production is produced by farms exceeding 200 ha. In Nicaragua and Costa Rica small farmers are responsible for approximately 35% of total coffee production. In Costa Rica, however, small-farmer participation in banana and sugar cane production is minimal; more than 85% and 65% respectively is produced on farms of more than 200 ha. In El Salvador the reformed sector makes a substantial contribution to agroexport production, with participation in total production of close to 14% for coffee and 40% for sugar cane and cotton for the 1986-87 agricultural year.

85. In light of the foregoing, the problem of rural development and rural poverty cannot be dealt with separately from the problems of economic development and growth in the countries of the Central American Isthmus and the Dominican Republic. Nor should it be addressed with "social compensatory" measures to make up for the "social costs" of economic growth. Given the important role of small-farm production in the larger scheme of overall agricultural production in these countries, it can be said that strengthening the small-farm economy is indispensable to the growth of the agricultural sector and to economic development. Hence, reducing rural poverty must be seen as an integral part of the development process in these countries and not as a compensatory measure which only becomes effective once overall economic growth levels have been attained.

86. The foregoing is supported by the following conclusions:

- i) Two-thirds of the rural population of these countries is engaged in small-scale farming. (62) This means that a very high proportion of the rural labor force is engaged in small-scale farming, making it imperative to tap its productive capacity and, in this way, strengthen the small-farm economy. The potential of the small farm economy becomes increasingly clear if one takes into account the accelerated agrarian reform process carried out during this decade in El Salvador, Nicaragua and the Dominican Republic, and State settlements available to the small farmer in Costa Rica.
- ii) Because of the twofold role of the small farmer --as producer and consumer-- strengthening the small-farmer population will help expand the domestic market and the productive sectors geared to that market. Due to its importance as a share of total population and its precarious living conditions, the small-farm economy constitutes the sector with the greatest potential for increasing domestic demand. An increase in its income would not only help to reduce poverty in the area but to reactivate the economy as a whole.

b. Food security and the reduction of poverty

87. Development of the domestic market by promoting higher rates of productivity in the small-farm economy is vital to combatting the poverty levels in the agricultural sector which surpass those of the urban sector in the countries examined herein. If nutrition and health indicators for these countries show a serious decline as compared with 1970 levels, this deterioration is even more apparent in the agricultural sector. Accordingly, the importance of increasing basic foodstuff production is all the more urgent if one examines the calories contained in the market basket of the rural sector in these countries. Corn, beans and rice alone account for more than 70% of the total number of calories consumed in El Salvador and almost 60% in Guatemala and Honduras. In the remaining countries, these three products account for somewhere between 35% and 45% of total calories. While corn is the most important product in El Salvador, Guatemala and Honduras, representing as much as 56% of total calories in El Salvador, and between 40% and 50% in the others, in Costa Rica, the Dominican Republic and Panama rice is the most important product, representing 24%, 31% and 36% of the total amount of calories,

respectively. In all the countries, except for Panama and the Dominican Republic, beans account for 10%.

88. A study conducted by ECLAC shows that in order for the Central American Isthmus to achieve at least the levels of basic grain production attained in the late seventies, the gross value of basic grain production at constant prices must increase by an annual rate of 3.5% during the latter half of this decade. This situation becomes even more disconcerting if, in addition to this objective, the growth rate of the population is also taken into account. (63) As stated earlier, the low levels of productivity attained by the small farmer, as a direct result of the level of poverty and underemployment prevailing in the agricultural sector of the subregion, was already a cause for concern by the end of the last decade. Therefore, if the objective is to reactivate the agricultural sector as a prerequisite for overall economic development, then it does not suffice to recover the levels attained during the last decade. Instead, it is imperative to increase the production of basic grains and other foodstuffs even further, in order to guarantee the population better nutrition and to increase the income of the small farmer. (64)

89. In this context, it is important to define a food security strategy for the population as a whole, since greater production of basic foodstuffs does not necessarily satisfy demand if all members of the society do not have equal access to the food produced. Establishing a balance, in aggregate terms, between the availability and the demand for food does not guarantee the poorest groups the security of minimum food intake. Not everyone has equal access. Some will surpass this minimum limit; others will never reach it. Therefore, it is important to develop a food security strategy which goes beyond the purchasing power of personal income and combines "the availability of food with guaranteed access by virtue of a series of economic, social, legal and political conditions or rights." (65)

90. A food security strategy must include an increase in production and productivity in the small-farm sector, and not simply concentrate on the demand side of the issue. It is important to maintain this broader perspective, because greater availability of foodstuffs does not necessarily mean greater volumes of domestic production, if the deficit between supply and demand can be covered with greater donations from abroad. Moreover, food aid, which has increased in this decade in the majority of the countries in the area, creates distortions in domestic food prices and leads to food substitution. These two factors can greatly discourage domestic food production. In such a case, the need for food aid can only be proposed as a very short-term program, since over the medium and long term it tends to be detrimental to rural development. Specific food distribution programs which take into account greater food accessibility on the part of the low-income population, the increase of agricultural supply and the promotion of small-scale farming, are therefore central to any strategy for the sector and its relation to overall economic development.

c. The importance of agroexports in consolidating the foreign sector and obtaining foreign exchange

91. Development of the domestic market, by promoting small-farmer production, is at the heart of reactivation and overall development for the economies in the area. However, if exports are not increased to generate the foreign exchange required for the growth of the sector, the development strategy will stagnate. If the development strategy focuses on food production to achieve self-sufficiency as the only driving force behind economic growth, relegating export promotion to second place, with a relatively undeveloped industrial sector, the strategy to increase agricultural production for domestic consumption, through import substitution, will not generate enough foreign exchange to import i) the inputs and capital goods required for production and ii) the non-agricultural goods required by the population. (66)

92. In view of the importance of the agricultural sector in terms of the total exports of the countries analyzed herein, the sector's current and prospective contribution to the balance of payments is key. Therefore, it is crucial to pursue an aggressive diversification policy for exportable agricultural products and to improve access to markets in industrialized and other prospective countries. However, any export promotion campaign must include promotion of greater levels of domestic production which bring about foreign exchange accumulation, particularly in connection with crops which can be efficiently produced domestically. This was the case, for example, in the some of the countries of the area where oilseed crop production was considerably discouraged by implementation of economic policies which distorted domestic prices, increasing dependence on vegetable oil imports. In some instances, import substitution of oilseed imports, effected through the production of oilseed imports for the domestic market, represents a more efficient alternative for increasing foreign exchange earnings, than the export of certain traditional products. (67)

93. The need to continue promoting traditional exports (coffee, bananas, sugar, beef and cotton) remains, not only because they still represent an important share of total exports --and will continue to do so in the short and medium term-- but because the level of productivity achieved with these products is greater than that of exporters elsewhere in the world, naturally granting the countries of the subregion a comparative advantage. Moreover, the large contribution of the small farm economy to the production of traditional exports also makes it imperative to promote the recovery of this subsector.

94. However, a variety of factors (such as the growing saturation of the market in the developed countries, the substitution of traditional agricultural commodities by industrial products, and the need to stabilize foreign revenues) also make it necessary to diversify the agroexport sector and avoid overdependence on a few crops for the generation of foreign exchange (see Annex 2 for further details). Therefore, consideration should be given to the relative growth of non-traditional exports, which have gained ground during the present decade and which are proposed as a future alternative for diversification to third markets.

95. Analysis of the contribution of non-traditional exports clearly shows their vast potential for reactivating and developing the economies of the area. Other important non-traditional exports for third markets, such as textiles, clothing, medication and other chemicals, are produced, for the most part, either offshore in free zones, in the case of the first two, and by multinational enterprises in the case of the last two. This generates limited value added in the economy as a whole, since these activities basically entail "assembling" and necessary inputs and raw materials are almost entirely imported, creating no linkages whatsoever in the production process. As illustrated earlier, the agricultural sector employs a considerable quantity of domestic resources in the production process and creates a potential for producing multiplier effects within the economy through forward-backward linkages. Moreover, where there is sufficient foreign investment in non-traditional agricultural production, its share of GDP tends to be relatively significant. (68)

96. The eventual expansion of the agricultural supply is conditioned by the problem of gaining access to foreign markets, which proves decisive, given the important role of the agricultural sector as a source of foreign exchange earnings required to develop the economies of the area. A key aspect of this problem, which cannot be overcome by the sheer political will of the countries of the area, is the protectionist agricultural policies of the developed countries, which have precipitated a fall in prices and in demand and an artificial increase in the supply of numerous products exported by the subregion. (69)

97. Protectionist measures have discouraged interest in subregional production, based on the notion that "it is irrational to produce domestically, given the opportunity cost of the imported product". This fallacy must be rejected: "international prices are not efficiency prices", if one considers the sizeable subsidies behind them. Furthermore, despite opportunities which have arisen of late, particularly in connection with the Caribbean Basin Initiative (CBI), the markets for non-traditional products are limited and demanding, such that extreme caution must be exercised to avoid investments which are difficult to recover. (70)

98. The regulation of international trade in agricultural products appears to be a prerequisite for reactivating the agricultural sector of the area. The Uruguay Round (GATT) represents an interesting prospect in this light. Likewise, the support of the international community for Central American development should be fully utilized by the countries in this study to gain access to new markets in the developed countries.

99. In order for the efforts at export diversification of the foreign sector to be consistent with the primary objective of boosting domestic development by promoting small-farm productivity, small farmers must get involved in exporting non-traditional as well as traditional commodities. Small farmers engaged in agroexports do not necessarily enjoy optimum land conditions to achieve or match the levels of productivity attained by larger producers; however, if resources are channeled in that direction, their income can be increased more than if they were engaged exclusively in production for domestic consumption. (71) Several successful efforts already exist which demonstrate the potential of non-traditional

agricultural exports for incorporating the small farmer into the production process and for generating employment in the rural sector. Mention should also be made of such cases as ALCOSA and the Cuatro Pinos Union in Guatemala; the incorporation of the small farmer as a producer of vegetable exports has proven more successful there than the production of medium- and large-scale producers. As a result, the small farmers not only raised their income and productivity level, but some also began to obtain higher yields in corn production which compensated for the loss of area cultivated with basic grains with the introduction of vegetable production. Also worthy of note is the recent experience of the Union of Panamanian Agricultural Export Cooperatives (UCAPE), which successfully exports melon and watermelon to the North American market. While diversification of the State-run sugar production sector in the Dominican Republic toward non-traditional exports has not succeeded in significantly increasing small farmer participation, it has created more jobs under more favorable conditions, making way for incorporation of the rural female population and better wages than those received for cutting cane. (72)

d. Agricultural reactivation, employment and level of activity: toward new linkages between agriculture and industry

100. A long-term strategy for sustained economic development requires a balance between the promotion of production for domestic consumption and export production, as well as an intersectoral balance, with productivity growth in both industry and agriculture. While export promotion can constitute an incentive for continued growth once the import substitution process has been exhausted, if industrial development is not pursued alongside agricultural development, there is a risk of reaching a saturation point with lower income levels in the domestic market once agricultural prices become unfavorable as supply increases as a function of inelastic domestic demand. (73) Given the potential of the agricultural sector to create greater value added than other economic activities, industrialization must be promoting by modernizing the sector and in such a way as to create forward-backward linkages.

101. Modernization of the agricultural sector, through the promotion of intersectoral relations, can become one element of an even larger strategy for the reactivation of the economies of the Central American Isthmus and the Dominican Republic. First, there is a vast potential for disseminating existing technology, as well as developing and adopting new production technologies, which points to the "high potential for modernization and increased productivity in the agricultural sector". Second, if modernization goes beyond the productive process, there is a very high probability that agriculture will participate in and contribute to economic reactivation, thus creating greater value added than that witnessed with the industrialization process of the sixties and seventies. Modernization of agricultural production creates "backward linkages" because of the greater demand for irrigation, bottling, packaging, machinery, equipment and inputs, all of which are increasingly "industrial" in nature. Moreover, modernization of the agroindustrial process (forward linkages), could increase the demand for factors, machinery, equipment and inputs in the industrial sector. While the agricultural sector plays an important role as supplier of industrial inputs, it should be noted that the manufacturing sector does not participate in any significant way in the agricultural production process;

this is the case for the food industry which uses a large degree of imports which could readily be produced domestically. (74)

102. In addition to these linkages in input-product relations, it is important to stress that agricultural modernization can lead to industrial modernization, and that both cases can be expected to bring about an increase in income, allowing for a third linkage resulting from the increased demand for both food and industrial products. (75) In this connection, it is important to promote agroindustry which benefits small farmers in the agricultural sector. The successful efforts at integrating the small farmer in greater processing of non-traditional exports, such as those undertaken by the Cuatro Pinos Union in Guatemala and UCAPE in Panama, could serve as examples for future strategies of this kind. Likewise, considering that a large part of the rural population is composed of salaried workers, the agroindustrial process can provide a major source of employment under more favorable conditions, not only reducing chronic rural unemployment and underemployment, but increasing the income of the population. Experiences with conversion of sugar production in the Dominican Republic and ALCOSA in Guatemala should also be considered in this light.

e. Increasing production through improved productivity and efficiency

103. Previous sections viewed the importance of increased agricultural production for regional economic development, both in terms of domestic consumption and exports. Moreover, our analysis illustrates that the major source of any increase in the agricultural supply must be an increase in productivity, not only because of existing restrictions to "horizontal expansion", but because of the advantage of this strategy in terms of its capacity to create intersectoral linkages. Increased productivity and efficiency are basic requirements for creating an additional competitive supply on the market which makes full use of the limited domestic resources available for development.

104. For the purpose of increasing production and productivity in small-farm agriculture, and thus contributing to the reactivation of the agricultural sector, in addition to providing greater access to land, it is important to assign more human, financial and technical resources. This is the case because despite noteworthy land distribution efforts in some countries of the subregion, resources have not been sufficient to achieve the necessary levels of production and productivity; oftentimes, the small farmer lacks the appropriate marketing mechanisms to sell his products. In El Salvador, for example, credit policies have not matched efforts undertaken in the agrarian reform area, even though the banks have not been nationalized. While Nicaragua has adopted a serious policy to expand or extend credit facilities to the small farmer, his economic situation continues to be precarious and the effects of the war impede the efficient allocation of financial resources. Both in El Salvador and the Dominican Republic it has been difficult to effectively incorporate the small farmer in the reformed sector into development of the irrigation system. All three countries, moreover, acknowledge that marketing is a major obstacle which must be overcome. (76) While a higher level of technology would mean higher yields, new production techniques must be introduced in an efficient fashion (see Annex 4 for further information

concerning the relationship between yields and costs as a function of new technology in basic grain production). Experiences with introducing the small farmer in El Salvador and the Dominican Republic to irrigation practices have demonstrated that new production techniques must go hand in hand with credit facilities and technical assistance. (77)

105. Better educational opportunities and health services are also required to raise productivity levels. Improved health depends on the availability of food, which points up the need for a food security policy for the neediest members of the population. Increased food production is intimately linked to greater productivity, not only because food production is a function of higher levels of per capita income, but because modernization of the productive sector requires a healthier and better-educated labor force. In brief, improved health and basic education facilities should not only be viewed as a social service, but as a prerequisite for increasing productivity levels.

106. While traditional exports tend to generate relatively higher yields than in many of the other producing countries, and have achieved a certain degree of competitiveness on the international market, resources must be channeled to raise the productivity levels of small farmers engaged in such production, since their yields tend to be lower than those of larger producers. A policy of this kind would enable a greater number of farmers to benefit from the fruits reaped from exports.

107. Another aspect worthy of consideration is increased efficiency in the marketing of traditional and non-traditional agricultural products --by eliminating export-related red tape and reducing costs--, rendering them more competitive in international terms. The destruction of the greater part of the marketing infrastructure and transport facilities which are often obsolete make the unit cost of export products considerably higher. (78)

108. Macroeconomic and incentive policies for the sector should seek to promote the adoption of higher levels of technology and to improve efficiency; producers should be penalized for underutilizing available resources and incentives should be given to the more dynamic. Competitive public services and access to technology and inputs are other elements which complete the "incentives package" required to raise productivity and efficiency levels, particularly in "commercial agricultural" units.

109. Increased agricultural production must be ecologically sound, making rational use of the natural resources found in the area. As indicated earlier, one problem in the subregion has been that increased production has resulted from growing exploitation and expansion of the agricultural frontier, rather than increased productivity of the soil per se. This has led to massive deforestation and ever increasing soil degradation. Thus, increased basic food production and expansion and diversification of agricultural exports must be accompanied by increased productivity and efficiency, through the more rational use and allocation of productive factors and of financial and technical resources. Herein lies the importance of replacing extensive and low-yield products with intensive, high-yield ones.

110. However, technological advances must also be ecologically sound. It is futile to increase productivity levels if this only broadens the gap between private and social costs. For example, the inappropriate use of artificial irrigation in the Dominican Republic has absorbed the salinity of the soil which, over time, has accumulated on the surface or topsoil and prevented the normal growth of plant life. (79) At the same time, while cotton production levels in the Isthmus have been extremely high, the intensive use of new technologies to combat pests has incurred considerable social costs for mankind and the environment in general. The rational use of technology does not imply its absolute abolition; instead different practices should be explored within a broader interpretation of the meaning of development. Using this approach, some agricultural products, such as cotton and wood, which contribute largely to the generation of foreign exchange, would not endanger the future of the ecosystem; production could even be increased and pursued, not only as relevant options for agroexport diversification, but also as important raw material for the textile and furniture industries. (80)

D. INSTRUMENTS FOR IMPLEMENTING THE STRATEGY

111. Instruments must exist for implementing an agricultural reactivation and development process which will aid in achieving goals such as those described above. These instruments include policies, the strengthening of production and State organizations, modernization of the State, investment and integration as well as joint actions. While most of these instruments are implemented at the national level, joint action is necessary for the reactivation and development of the sector. Integration and joint actions are an integral part of the proposed strategy because linkages are established between production destined for domestic and subregional consumption and that for overseas markets, and because they promote efficient production and greater coordination between agriculture and industry. Here below is a discussion of some pertinent recommendations.

1. Policies

a. Export promotion policies

112. Apart from new opportunities which have arisen in terms of greater access to non-traditional export markets, pursuant to the implementation of the Caribbean Basin Initiative (CBI) and the Generalized System of Preferences (GSP) by the United States and Europe, the incentive to export these products is due, to a great extent, to the adoption of macroeconomic and sectoral policies. Comparison of different exchange rate policies reveals that those countries with an overvalued currency were clearly less successful with non-traditional exports. (81)

113. The importance of the exchange rate in the promotion of non-traditional exports notwithstanding, it is also necessary to consider specific policies implemented during this decade, aimed at increasing the production and export of these products, which, in most cases, are an integral part of national adjustment programs. In addition to ensuring a preferential exchange rate policy, new export promotion laws also seek to

guarantee public spending and tax policies and preferential exchange treatment which are attractive to local and foreign investors. (82)

114. In Central America, Costa Rica provides the greatest number of tax incentives for both local and foreign investors. These incentives include longer income tax exemption periods than in other countries (12 years) and the use of Tax Credit Certificates (CA'P), which allow the exporter to reduce his production costs through an additional increase in income. Another tax incentive granted by some countries is total exemption on imports of machinery and inputs. (83)

115. Exchange rate incentives exist in the majority of the countries to compensate for overvalued currencies and have been used in all of Central America, except for Costa Rica, where constant minidevaluations have prevented the colon from becoming unduly overvalued. This type of incentive enables the exporter to receive the total sum (as is the case in El Salvador, with some restrictions) or part of his income (which is commonplace in Nicaragua, Honduras and Guatemala) at a higher rate than the official exchange rate.

116. Credit incentives are not very advanced in Central America. The few efforts of this kind have either consisted of special export funds in Honduras, Nicaragua and Costa Rica or loans with preferential interest rates in Nicaragua. However, much emphasis has been placed on the need to simplify the administrative end of the export process. To date, the most noteworthy achievements have taken place in Guatemala with the establishment of the "Ventanilla Unica" -- an attempt to streamline these operations. In 1988, Costa Rica was about to launch a similar system, and the other countries of the Isthmus have expressed great interest in doing so as well. Nicaragua hopes to be able to reduce export-related red tape by reducing public sector activities.

117. In conclusion, there is an important experience under way in the subregion in terms of incentives management for non-traditional exports. What must be explored is the incentive package best suited to the conditions prevailing in each country. It is also important to consider the effectiveness of such incentives, in view of the risk of their being interpreted by the importing countries as export subsidies, which could lead to the application of compensatory measures. (84)

118. The picture is very different for traditional agricultural exports. While it is true that nominal devaluations in some countries have meant higher income for producers, there are policies applied to these products which have created a serious anti-export bias. (85) The dependence of the treasury on export taxes (a sizeable part of the national budget is derived from this source of revenue) is an impediment to export promotion strategy (see Annex 1). Therefore, it is necessary to examine the extent to which the tax structure must be changed so that taxes not only affect consumption but trade.

b. The importance of differentiated sectoral policies for raising the production and productivity levels of the small farmer

119. While exchange rate policies have created a pro-agriculture bias, this is not entirely the case for sectoral adjustment policies (see Annex 3 for discussion of adjustment and stabilization policies). Apart from the social costs which adjustment policies incur in the short term, these policies do not necessarily increase productivity and efficiency when problems are of a structural order. Inefficiency also leads to poor allocation of resources and factors of production in the agricultural sector, and not only because of distortions due to domestic and external price-setting policies. As viewed above, food production for domestic consumption --basic grain production in particular-- is carried out by a wide variety of productive structures. Generally speaking, rice and sorghum tend to be grown by large producers, while the greater part of corn and bean production is usually in the hands of a vast number of small farmers. When a decrease in protection in the production of basic grains takes place, it is the small farmer who suffers for lack of access to financial, technical and human resources available to the larger producer. Thus, it is extremely important when proposing a policy of gradual reduction of protection rates (since there is already a period of adaptation for the majority of farmers) to allow for an even slower reduction for small-farm production, while granting small farmers the factors and resources required to become efficient.

120. Therefore, to achieve greater efficiency in small-farm production, in addition to the gradual elimination of subsidies and the liberalization of prices whenever possible, as well as greater participation of cooperatives and the private sector in the marketing and production system, differentiated policies must be implemented which will change structural factors currently preventing the efficient use of resources and factors of production. This is particularly important in terms of food production, not only for the sake of achieving greater self-sufficiency in the production of foodstuffs, but increasing the income of the agricultural sector. In this connection, it is a question of increasing efficiency in the production and marketing of agricultural products while reducing the poverty levels of the population.

121. Strengthening small-farm holdings in the Central American Isthmus and the Dominican Republic cannot be achieved simply with policies to improve product and factor markets; it also requires the design and promotion of differentiated policies for small-farm production. Thus, we must recognize the specific economic, social and cultural characteristics of the small farmer. It is entirely inappropriate to seek to assist small farmers on the basis of generic development policies, without taking into account the his different strengths and weaknesses. Policies to support the small farmer must be based on a firm understanding of the characteristics which make this sector unlike that of the medium- and large-scale producer; at the same time, there are differences within the sector itself, according to the specific situation of the small farmer in the overall economic structure and the ecological and cultural context.

122. Even though access and legal title to land constitute a very important differentiated policy, policies must be promoted which will

ensure the participation of small farmers in the generation and transfer of appropriate technology and in credit system, so that he may increase his level of competitiveness through greater productivity and lower production costs. (86) In addition, these policies should be coordinated with others that have been specifically designed to facilitate an effective and efficient marketing process, which should include securing prices that guarantee a final production value providing higher profit margins for small farmers. (87) Lastly, it is vital to promote policies which lead to diversification of the productive activities of the rural sector, increasing the degree of processing of agricultural production and of small farmer participation in export promotion, so as to create more job opportunities and incorporate the small farmer into a more lucrative production process.

2. Strengthening Production Organizations and Institutional Systems

a. Small-farmer organization essential for implementation of differentiated policies

123. Considering that "the success of rural development policies can be attributed to the active participation of small farmer organizations in the decision-making, planning and implementation processes which reflect their own interests", (88) further organization would increase the bargaining power of the small farmer with governmental and non-governmental organizations, making him part of the decision-making nucleus of the sector. This would also grant the small farmer greater representation and the opportunity to participate more actively in the formulation and implementation of adjustment and stabilization policies, so that they reflect the differentiated policies of the sector. (89)

124. Small farmers must be better organized if certain technologies presenting indivisibilities are to be introduced, and if small farmers are to participate in the diversification of agroexports and the agroindustrial process. (90) Due to the lack of organization at the marketing level, small farmers usually fetch far lower prices for their products. The bottleneck in the production of the reformed sector in El Salvador has been precisely the lack of marketing channels for small farmers benefitting from the program.

125. Small-farmer organizations and enterprises must be strengthened given the potential inherent in existing structures. In some instances, agrarian reform processes have already laid the institutional and legal foundation for small-farmer organization, the consolidation and mobilization of which can become a powerful ingredient for improving the living conditions of a vast part of the rural population". (91) It is also necessary to consider the potential of indigenous organization, particularly in Guatemala, which is based on family or inter-family relations for production, work and distribution. These community systems are also characterized by the integration of collective and individual forms of ownership, by social organization structures based on reciprocity, participation and tradition, and by preservation of a singular cultural kinship which brings together elements in the natural and historical environment in which they have developed. (92) However, despite the existence of this small-farmer grassroot organization, the cooperatives, small farmer enterprises, farm workers unions and other

associative forms of production have been relatively ineffective to date; but by constituting an entrepreneurial sector, which is the property of the workers, they could become second and third degree organizations and, as an economic sector, play an interesting role ("third sector") of particular national and regional significance. (93)

b. The importance of the State in the reactivation and development of the agricultural sector

126. The importance of the State and the institutional systems becomes evident if one considers that government plays a key role in the reactivation and development of the agricultural sector, particularly in view of the limitations which arise when a strategy is based exclusively on the free play of the market. While it is true that government must be run as efficiently as possible to allow the countries of the Central American Isthmus and the Dominican Republic to make the investments they need --especially in light of debt problems and low prices for primary exports-- certain factors in the countries limit the use of market mechanisms which promote development. Because of existing structural deficiencies, State actions have a greater impact than in developed countries, in that they tackle problems which the free play of the market alone cannot solve.

127. The first deficiency results from a lack of information and the insecurity facing producers and consumers in these countries. Oftentimes, producers are uncertain about the size of the market, the presence or existence of other producers and the availability of domestic and imported inputs. The consumer, on the other hand, lacks information about the availability and quality of the product and its substitutes. This lack of information can be attributed to an inability to establish appropriate marketing mechanisms to ensure the efficient allocation of resources. With the promotion of non-traditional agricultural exports, it is vital to obtain information concerning market conditions abroad and potential producers in neighboring competitive countries. Moreover, the incorporation of the small farmer into export and agroindustrial diversification efforts requires access to such information. Therefore, the State plays a key role in providing the information required to ensure the most efficient investment possible in the agricultural sector.

128. Another deficiency is a direct outcome of the lack of effective market competition in the subregion. There is a monopolistic structure in the industrial sector of these countries which has created price distortions and inefficient use of resources. However, the concentration of land ownership, which has created a high level of monopolization in agricultural production, is the greatest hindrance to the reactivation and development of these. The State has an extremely important role to play in this regard, assuring the small farmer greater access to land and land ownership, as well as the efficient allocation of technology and credit.

129. Lastly, another deficiency which reflects the need for State intervention in the economies of the subregion concerns the presence of externalities in the relatively less developed countries, since many of the goods and services have a high social cost which is not reflected in the market price. These goods and services, such as education and he...

care, must be provided below cost, which means that they must be made available by the public sector. However, investments of a social order should be viewed as an integral part of the reactivation and development process in the agricultural sector and not simply as social compensation for the small-farm sector, since policies to improve education and health conditions lead to greater productivity and production increases. (94)

c. Modernization of the State and of institutional systems

130. Despite the important role of the State in the efficient allocation of resources for agricultural reactivation and development, there are certain structural and short-term aspects of government operations which require revision. The structural aspects consist of numerous factors and people that intervene in the formulation and implementation of the policies which determine the direction the agricultural sector takes. This explains the need to review public sector action, both in terms of policy and project formulation and implementation and the supply of services. It is crucial to strengthen the capacity for policy analysis and design in the ministries of agriculture and their equivalents, thus increasing their bargaining power with other areas within the public sector.

131. Likewise, priority should be given to coordinating and reaching agreement on the policies and actions of the numerous economic and agricultural agencies. The implementation of differentiated policies targeting the small-farmer sector require revision and establishment of new institutional systems for rural development program and project administration and management which help overcome the dispersed and duplicated efforts in the public sector to administrate said programs and projects, increase small-farmer participation in management and follow-up activities and encourage their administrative decentralization. It is also fitting to have the public agencies involved in the rural sector coordinate their efforts with non-governmental organizations (NGOs) which promote small-farmer development, channeling greater quantities of financial and technical resources. Lastly, the importance of coordinating rural development efforts with State institutions carrying out social investments in the economies of the area should not be ignored.

132. The short-term aspects, which have come about as the result of growing pressure to control public spending and investment because of the debt and the fiscal deficit, suggest that State actions in certain areas need to be studied. Those which are new and have strategic impact should be emphasized; those which have been adequately developed in the private sector and already involve well-developed farmers' organizations should be abandoned. Lastly, growing market competition requires a substantial increase in the efficiency of the services rendered by State enterprises, particularly those services in connection with non-traditional exports, such as marketing, transportation and dock loading, which call for expedience and competitive costs.

133. The foregoing does not entail determining the degree of nationalization or privatization of the economy. What must be assessed are the advantages and disadvantages of all private investments and these must be coordinated together with the public sector, in accordance with

the objectives established in the development programs. However, when proposing greater privatization of the public entities in the agricultural sector, both the small farmer and the consumer must be taken into account. For example, in the case of privatization of marketing institution operations, mixed formulae for the functions shared by the private and public sector --in terms of certain marketing and production mechanisms-- must be explored, but in such a way that not only increased efficiency and reduction of State costs are considered, but also the needs of the small farmer and the consumer.

134. The foregoing illustrates the pressing need to carry out actions to strengthen the institutional system of the agricultural sector at both the public and private level. While it is true that the specific proposals vary according to country and type of institution, there are bright prospects for joint actions in such areas as training, exchange of experiences, development of binational or multinational enterprises, (production of inputs, marketing, etc.) information systems, and others.

3. Goals and Nature of an Investment Strategy

a. **The investment problem**

135. The growth pattern of the agricultural sector is intimately linked to the overall investment picture which, in turn, is shaped by the economic growth models employed in each country. Over the last three decades, the rates of growth of the economies examined herein have been determined, to a large extent, by the volume of resources invested in their productive apparatus. While growth patterns have been a direct function of the flow of investments, it should be pointed out that their different economic and social impact is attributed, among other factors, to their composition and their destination by areas of investment. The final impact of these investments is invariably determined by the areas of investment emphasized by the development strategy adopted and by the capacity to respond to said investments.

136. The volume invested and the type of activities financed have determined both the patterns of growth and the way in which the benefits derived therefrom have been distributed among the different social groups in the countries of the subregion. In this context, the proposed reactivation strategy, with its basic premises to increase productive efficiency via appropriate technology and modernization of the government apparatus, aiming at diversifying exports and improving the prospects for the small-farm economy, requires an investment strategy which ensures the compatibility of macroeconomic growth objectives with those of social equity. The investment strategy for the Central American Isthmus and the Dominican Republic should include a basic number of elements which will guarantee economic success during the first phase of the reactivation process, through investment in the agricultural sector, followed by consolidation of a sustained economic development process in phase two.

137. The reactivation stage is the strategy which steers the economic development process by way of a selective growth process, encouraging specific areas of the productive apparatus of the agricultural sector --through investment-- with a view to obtaining certain rates of economic

growth with equity, within a prudent timeframe. Reactivation of the agricultural sector, as the driving force behind the economy, is the first phase which will ensure a general economic development process in the medium and long term. The reactivation process, when viewed in this light, requires a clear understanding of the fact that the velocity of response in different areas of investment differs both in terms of the time involved and the impact achieved. Accordingly, there is a need to overcome the "opportunity cost" of investments, and adopt an investment strategy which is appropriate for each country, yet consistent with those of the subregion.

138. The key investment-related problem in the countries in this study is that of optimizing the allocating of limited resources, so as to achieve the desired objectives of growth and social equity. In order to do so, investment strategies must be based on a new approach to foreign trade, including intraregional trade, which involves mechanisms to overcome problems of economies of scale and unit costs in production, while taking advantage of the vast potential of the small-farm economy in the production of exportable foodstuffs and products. It is also necessary to improve the countries' capacity to create programs and projects which truly serve to consolidate the reactivation process. Likewise, it is important to underscore a number of legal considerations which serve to detect traditional bottlenecks, and to formulate mechanisms which facilitate the regional integration process.

139. Although reactivation of the agricultural sector in the subregion requires heavy investment, there are important conditioning factors --both external and internal-- which must be overcome to ensure the flow of the required resources. The external debt of the countries of the area and a reduction in the inflow of capital mean there are not only fewer "new" resources available, but the need to transfer abroad a fair part of domestic savings for debt servicing. On the other hand, the capacity to generate domestic savings is seriously restricted by the deterioration of the productive apparatus and the capacity to accumulate of the subregional economy, as a result of the general crisis and internal conflicts. In addition thereto, is the problem of capital flight, because of the political instability of recent years. Therefore, it is difficult to count on the flow of investments required to reactivate the agricultural sector and the overall economy of the subregion without substantial external financing, at least in the initial stages.

140. Therefore, an investment strategy is proposed which contains the following features:

- i) Total investment must include serious external financing, as well as a large private investment component, so as to complement the efforts of the governments of the subregion and encourage domestic savings via specific mechanisms.
- ii) It is imperative to define the minimum volume of resources required in different investment areas, as well as a timeframe for the allocation of said resources, to achieve balanced results which include social considerations.

- iii) The selection of investment areas should include a specific food security component, which would take advantage of the vast potential of the small-farmer subsector.
- iv) It would be necessary to determine a specific area of investment to ensure the generation of foreign exchange via diversification of agroexport production.
- v) A high percentage of resources must be earmarked for institutional strengthening and training of human resources, to facilitate consolidation of the reactivation process per se. Administration thereof should include basic principles of decentralization of the agricultural public sector, with the added objective of cutting back on public spending, increasing administrative efficiency and ensuring the participation of the population.
- vi) Such processes as the generation, adaptation, tailoring and transfer of technology should be strengthened, while seeking to integrate, at the regional level, certain technology generation processes, so as to take advantage of economies of scale and minimize the duplication of efforts and inefficiency.
- vii) A high percentage of resources should be assigned to programs, projects and activities which foster regional integration, rationalizing production based on existing natural resources.
- viii) Regional investment efforts should be geared to the availability of natural resources in each country, seeking complementarity. To that end, production investment alternatives should favor those processes with higher degrees of linkages to achieve greater multiplier effects. Likewise, priority should be given to those investments which, in addition to their key objective, are concerned with conservation or restoration of natural resources.

141. Two of the above are prerequisites for ensuring the success of the other investments: institutional strengthening and access to technology. As for institutional strengthening, it is important to consider the need to improve the capacity of the countries to generate projects which are truly useful to consolidate the reactivation process. While the foregoing is linked to institutional problems in each country, it leads to limitations constraints in the development of joint programs and projects of a regional nature. In the final analysis, it is important to reiterate the importance of investments in legal and institutional evaluations which help detect traditional bottlenecks and formulate mechanisms which promote the integration process.

b. Characteristics of priority programs and projects in terms of agricultural reactivation

142. Programs and projects are the instruments for implementing the guidelines of the investment strategy. As such, their design should include the basic principles of said strategy. Programs and projects must share common criteria and include a minimum number of characteristics to ensure, in practice, consolidation of the reactivation process. Therefore they should:

- i) take full advantage of the potential for integration, cooperation and complementarity of the economies of the subregion. To this end, subsectors of the agricultural sector, productive activities or specific investment areas should be selected which feature certain characteristics which promote regional integration and joint actions.
- ii) encourage activities which maximize real comparative advantages related to efficiency and competitiveness, with a view to gaining access to regional and extraregional markets.
- iii) contain components which will make full use of existing intersectoral links to obtain greater value added and thus possess the capacity to increase their impact synergetically through increased value added of the final product, i.e. agroindustry.
- iv) take advantage of production infrastructure which is underutilized or out of service for lack of maintenance such as irrigation, marketing, etc.
- v) have a high demand for unemployed or underemployed manpower.
- vi) develop production infrastructure in line with public spending limits.
- vii) promote rural development in specific areas by providing incentives for the training and organization of small farmers.

4. Integration and Joint Actions: Key Elements for Subregional Agricultural Reactivation and Development

143. The development of the domestic market and export promotion should take place within the framework of an integration process by strengthening a common market, in order to take advantage of the potential demand in the countries of the subregion and raise production efficiency through increased specialization. In effect, "there is a functional relationship between production for domestic consumption and consumption and production for foreign markets; an increase in production for domestic consumption would reduce costs because of better use of productive capacity, improving competitiveness in international markets, while a growth in exports would raise the income of the population and thus increase the demand for goods produced in the region". (95) Therefore, it is necessary to conduct activities at the subregional level in order to revive the idea that economic integration is the ideal bridge between import substitution and export diversification.

144. Trade in a protected, expanded market is of particular importance to Central America, given that the integration process has been one of the driving forces of economic growth since the sixties. However, former Central American integrationist policy did not include the agricultural sector to any great extent. Intraregional agricultural trade facilitates the achievement of higher levels of productivity and efficiency from small farmers, and the establishment of a subregional food security policy to benefit the poor. It can also promote savings and the generation of foreign exchange, in that it can facilitate efficient substitution of imports and increase the competitiveness of agricultural commodities destined to third markets.

145. The foregoing is supported by the fact that trade of agricultural products within the Central American integration framework can: a) become an efficient substitute for the costly system of holding stocks of agricultural products at the national level, when supply and demand differ from one member country to another; b) provide greater opportunities to employ raw materials from the agricultural sector, without having to employ scarce foreign exchange; c) create better conditions for substituting inputs and conducting research through joint actions at the subregional level, since investments of this type are very costly when conducted by each country on an individual basis, and d) increase the prospects of achieving greater agricultural production efficiency through increased specialization, based on comparative advantages.

146. Recent non-traditional agricultural export products from the subregion to third markets are characterized by being insufficiently processed with limited value added. This is not unusual, given that the countries are in an "easy" stage for increasing these exports. However, reactivation and development of the agricultural sector require intersectoral linkages between agriculture and industry to avoid saturation and increase export earnings. The establishment of a common market provides the incentives of demand needed for a successful agroindustrialization program. Forward-backward linkages can be created in the agroexport production process by initially increasing production within a protected expanded market to achieve greater competitiveness in production.

147. Likewise, a broader concept of integration must be held. For example, intrasubregional cooperation must aim to improve bargaining power and marketing techniques for the purpose of obtaining greater access and better conditions on export markets. Instead of competing for third markets, the countries should league together to strengthen their positions in terms of participation in these markets. Intrasubregional cooperation can also increase the competitiveness of export products through rationalization of production and marketing. For example, more competitive prices could be obtained if the region effectively coordinated the marketing and transport of its exports.

148. Therefore, the evolution of factors which condition the modernization and development of the agricultural sector, such as consolidation of its technological base, increased levels of productive forces, expansion of external economic links, greater linkages between the agricultural and the industrial sectors and the strengthening of technical and economic cooperation, among others, have a greater chance of success with increased joint actions, reflecting the countries' desire to achieve integration. Subregional joint action is defined according to criteria for the selection of initiatives. In this sense, joint actions include:

- i) the establishment of a common market, in order to take advantage of an expanded, protected market;
- ii) working to solve a national problem common to several countries;
- iii) increasing the bargaining power of the countries;
- i) overcoming technological barriers and sanitary problems, and
- v) bringing national and subregional interests into line with regional interests.

149. These joint actions take place through cooperation and are implemented within the confines of the integration process. Cooperation --an indispensable development tool-- is reflected in different types of potential joint efforts which have attained different degrees of maturity. Training and horizontal technical cooperation are key to subregional cooperation and are an important component in every area of joint action; they are considered crucial and are viewed as a process to develop attitudes, skills and know-how to equip the public and private sectors, particularly at the level of the small- and medium-sized farmer, to pursue the task of reactivation in an organized and educated fashion.

150. Intraregional technical cooperation seeks: a) to exchange and develop know-how, experiences and technology among the countries, and b) to strengthen the institutional capacity at the subregional level for increasing the use and productivity of existing human resources. In order to realize these objectives, not only will the solidarity and the political will of the countries of the subregion be required, but the complementary support of the international technical cooperation organizations, particularly in connection with increasing capacity to mobilize human resources to ensure cooperation among countries. It will be equally important to assess the experience acquired with regional projects with heavy training components, such as RUTA and FORGE, as well as the experience acquired with the COTER Program of CORECA, CT/INTRA of the IDB and cooperation networks sponsored by FAO.

151. Institutional strengthening in the public and private entities at the national and regional levels is vital to the successful development of the different program areas for joint action. This is particularly true for the executing agencies at the subregional level, specially those whose objectives include subregional integration and other joint actions within the agricultural sector. (96) For example, the efficient coordination of joint programs and projects to be implemented within the framework of the Central American Common Market, whose impact is of particular significance in terms of achieving the objectives of the joint action strategy for agricultural reactivation, requires the strengthening and modernization of the integration organizations, especially in the case of SIECA and the Central American Bank for Economic Integration (BCIE).

152. In addition to the foregoing, it is important to continue developing and promoting large-scale regional projects which are difficult, if not impossible, to undertake individually. Their shared objectives make them easier to implement, and promote the idea of a region in the true sense of the word and of the integration of the Central American Isthmus. These large-scale joint projects include plans and actions which aim at developing border areas so as to contribute to physical, economic and social integration among countries. In other domains, such as electricity, which is vital to the reactivation and development of the agricultural sector (and in which the link-up of the seven countries of the Central American Isthmus has already made considerable headway), regional agreements could be reached for large-scale joint investments in certain countries with comparative advantages for the production of low-cost energy. The conservation of natural resources and the sound development of the Atlantic slope of the Central American Isthmus, the rational exploitation of high-sea fisheries, as well as other large projects could be implemented with excellent advantages to be shared by all concerned.

153. Training and horizontal technical cooperation, together with greater institutional strengthening and the promotion of large subregional projects, are actions to be taken in the short term as groundwork for the implementation of programs and projects which are part of the program areas for joint action. Based on the preceding, thirteen priority areas have been identified for joint action among the countries of the subregion. They have been selected according to those aspects of the reactivation strategy which can be addressed or strengthened through joint action. Below is a summary of the thirteen key proposed areas of joint action, on which the subregional programs and projects should focus.

- . Food security
- . Support to small farmers and rural development
- . Promotion of agroindustrial development
- . Development and diversification of exports
- . Natural resources, ecology and the environment
- . Development of fisheries and aquaculture
- . Standardization of policies and subregional investments
- . Development of production infrastructure: Irrigation and drainage
- . Improvement of subregional and international marketing
- . Scientific and technological development
- . Strengthening of agricultural health services
- . Livestock development
- . Agricultural credit

III. PRIORITY AREAS FOR PROGRAMS AND PROJECTS OF JOINT ACTION

A. PRIORITY AREAS FOR PROGRAMS OF JOINT ACTION

1. Food Security

154. As an economic phenomenon, the food problem is one outcome of increased competition between the development of production and the growth of the population. This problem has worsened as more and more people flee the armed conflicts raging in the subregion, to move into areas totally unfamiliar to them.

155. Existing structural problems prevent the imposition of swift solutions; however, they can be addressed in general terms. Food self-sufficiency is the complete satisfaction of the basic food requirements of the population which, while not perfect, is considered adequate to maintain proper levels of nutrition and labor productivity. Any food security program must include the notion that social change must be brought about by the people themselves because the causes of such changes are rooted in the unequal distribution of the benefits of society.

156. The goal of such a program should be to ensure intraregional supply, with productive efficiency and a protected market, with a view to distributing the benefits equally. This implies the affirmation of intraregional trade movements and the formulation of a food security policy for the area. It can also mean making agricultural production more efficient if specialization is based on the comparative advantages of some countries. Programs already under way in the Subregion and supported by the countries (CADESCA-EEC Food Security Program, World Food Program and other bilateral endeavors) should be stepped up. Efforts in this area should be integrated in terms of nutrition, production, economic incentive programs, information systems, and the equitable distribution of the benefits of increased productivity. Food security can play an important role in agricultural reactivation in light of the increased demand that would be generated by the participation of small- and medium-scale farmers.

2. Support to Small Farmers and Rural Development

157. As was mentioned earlier, if small farms are to be strengthened, differentiated policies on small farm production must be promoted. Below is a summary of some areas for possible joint actions. In order to strengthen public institutions linked to rural development, collaboration must be provided in restructuring the same, based on decentralization, participation and optimal use of scarce resources. Technical personnel must be trained in the management of local and regional programs and projects, involving methods and contents aimed at facilitating the involvement of campesinos in the administration and management of these programs and projects.

158. Institutional mechanisms are needed that promote the participation of women and young people in rural development projects. Campesino women who are the head of the family must be given greater access to land and technical resources. Armed and political conflicts in Central America have produced an ever-increasing number of rural families whose daily sustenance depends on the production activities of women. Nevertheless, there are numerous legal, cultural and political barriers which prevent rural women from playing a more

active role, and, even worse, which deny them recognition for the work they do and limits their access to the fruits of their labors. Consequently, what is needed are changes in the legal system and the initiation of educational programs which will lead to full participation for women in rural development and organization.

159. If production and productivity are to be increased, small farmers must be given greater access to land, the quality and location of which will enable them to compete on national and international markets. The goal of distributing land and granting title to same should be rural development, and not agricultural programs aimed at the disposal of lands with little or no agricultural value. All such programs achieve is to perpetuate rural poverty and to underuse the human potential of the reformed areas or settlements. Likewise, in some parts of the countries of the area irrigation and drainage systems must be installed which suit the needs of small farmers and which will enable them to increase productivity and diversify their crops.

160. Other areas in which action can no longer be delayed are the identification and promotion of agricultural products which will increase profits for small farmers, and the exploitation of comparative advantages. Small-farm production should be diversified through the establishment of crops suited to this type of farming, which requires intensive use of the land and labor. In addition, small-scale agroindustrial, extractive and artisanal enterprises need to be identified and promoted which will make better use of the labor force available on small farms and which will enable the small farmers to add more value to their products. The favorable production characteristics of these new products must be complemented with stable and fair market and marketing conditions, as well as with technical assistance and financing.

161. The generation, adaptation and transfer of technology suited to small-scale agriculture, which will lead to increased productivity, self-management skills and proper care of the environment, must be undertaken now. In this regard, it is necessary to develop subregional agricultural research and technology transfer programs for the small farmer which will make it possible to join efforts being made in the different countries, thus reducing the gap that exists between the generation of technology and its transfer to the small farmers.

162. Access to adequate and timely financing is, without doubt, one of the major obstacles faced by the small farmer in raising production capacity and productivity. In all seven countries, decentralized and flexible credit systems are needed which take into account the demonstrated capability of small farmers' organizations (cooperatives, self-management enterprises, community associations, etc.) to administer and manage funds and furnish guarantees.

163. Both the organization and participation of small farmers are necessary if the countries are to benefit from rural development and democratization. However, the organization and participation of small farmers is only one part of a complex process which involves overcoming social and cultural barriers. Therefore, activities must be backed up by systematic training programs for small farmers (including literacy training, if needed) which are participatory in nature and deal with both production and organization.

164. Technical and management training for small farmers should be done in groups. This will strengthen the organization of small farmers, allowing them to share experiences related to farming and management, and provide the background for the emergence of leaders and future trainers. Worthy of special mention is the development of differentiated formal education systems for rural areas. Rural youth need to develop specific knowledge, aptitudes and skills in order to take part in rural development. The calendar, methods and curricula of the schools should be adapted to fit the needs and expectations of rural families and the social and economic modernization of agriculture.

3. Promotion of Agroindustrial Development

165. The heart of agroindustrial development should be the modernization of that part of the production system which involves the processing of agricultural raw materials. These efforts should be aimed at improving the technical and economic efficiency of the sector, which in turn would result in greater net foreign exchange earnings from exports, increased employment in rural areas and an overall improvement in the quality of life for the rural population. In this context, agroindustry should be developed in three basic areas:

- a) One of the areas involves the conversion of agroindustries in cases in which, because of obsolescence or market problems, there are structural obstacles which prevent them from being an active part of the production system. In this case, in addition to updating and transferring appropriate technology, efforts would also be made to develop new products and utilize byproducts and waste materials.
- b) Another important area is the development of new agroindustries, which should focus on processed products and intermediate goods with high added value. The main objective is to create a new supply of exports by providing technology and investment (preferably joint ventures), thus making it possible to take advantage of internal and external funding capacity, in order to reactivate the sector and improve the balance of payments of the countries by utilizing the advantages offered by the regional and international markets.
- c) Last, but not least, consideration should be given to rural agroindustrial development which, while difficult to implement, provides the most ambitious package of socioeconomic benefits. It is intended to improve the situation of impoverished rural farmers by linking them to external markets. Once necessary technology has been transferred, it will be possible not only to improve production efficiency, but also to increase added value, which ultimately results in greater income.

166. Whenever necessary, actions will be based on the use of groups or associations, which will facilitate the adoption of technology and eliminate differences of scale that may exist. Other characteristics of the actions mentioned above are related to the search for adequate financing, the preparation of projects and horizontal cooperation among the countries, which will depend on the political will of the State in its role of developing, supporting and promoting these actions. Another important step in achieving the objectives is the strengthening of relations between the public and private sectors. The private sector, for its part, has a very important role to play in mobilizing financial resources through direct investments or joint ventures.

It will have a leading role in re-inserting exports into the world market and in the development of effective marketing mechanisms.

167. The conversion of the sugar industry is one of the most important agroindustrial conversion initiatives in the subregion. The contraction on the world market, low prices, protectionist measures, both against imports and in favor of exports, through subsidies, technology which leads to substitution between agricultural activities (such as sweeteners from corn), chemistry which produces synthetic substitutes (such as aspartame), and other elements combined to produce serious deterioration and uncertainty in the sugar cane producing and processing industries of Central America and the Dominican Republic. It must be pointed out that this situation has a direct effect on producers and on the adaptation of specific industrial processes related to processing and refining sugar cane.

168. Producers have begun to undertake certain immediate actions aimed at bringing down costs, such as planting nearer the sugar mill to reduce transportation costs, and minor energy saving improvements in the extraction and refining processes. Lands previously used for sugar cane have gradually been replanted with traditional and non-traditional export crops.

169. In many cases, these short-term reactions can mean simply transferring the problem to another area because the deterioration mentioned earlier affects the entire agricultural sector of the countries, not just a few agricultural activities. The future of the sugar cane industry in the countries of the area will depend on the coordination that exists among the producing countries, and on the role it plays in international agreements. To this end, all the countries of the area belong to the Group of Sugar Exporting Countries of Latin America and the Caribbean (GEPLACEA), which is carrying out its work in two major areas: i) from the technical point of view, conducting studies on the effects that freeing up trade has on international sugar prices and the incomes of exporters; ii) keeping its member countries informed as to the current status of negotiations, as a means of promoting joint action within GATT, in order to bring the Uruguay Round of agricultural negotiations to a successful conclusion as quickly as possible. (97)

170. Parallel to any negotiations that could be held on the political level, sugar cane and its by-products have other potential uses. To a certain extent, the countries of the area are participating in research on its commercial applications. Three examples are several enterprises in Guatemala that have made preliminary studies or are already feeding cattle with chopped fresh sugar cane on the commercial level. (98) In the Dominican Republic, efforts to produce dry sugar cane material in drought conditions and in poor soils have shown that more dry material can be obtained than with African Star grass. There has been success in Costa Rica in using sugar cane as an energy source, in using alternative joint crops, and in producing and exporting anhydrous and hydrated alcohol.

4. Development and Diversification of Exports

171. Regardless of the importance of agricultural products in schemes to diversify exports in the subregion, the eventual expansion of exports is controlled by restrictions affecting their placement on international markets, as well as tariff and non-tariff measures imposed by the importing countries, which have reduced the incentive to invest. Therefore, the countries must find

new ways to solve this bottleneck and to take advantage of the potential offered by the agricultural sector for securing foreign exchange and reactivating domestic markets, while increasing income levels of the rural population. It is also important to take a close look at possible market niches for placement of exports.

172. Many of the countries of the area still follow policies which are biased against exports, and, even though serious efforts have been made to streamline export procedures and paper work, there are still numerous obstacles which make successful transactions difficult. The promotion of non-traditional exports should be aimed at further simplifying the export process and at facilitating macroeconomic and sectoral incentives to increase the production and export of these products. Therefore, it is necessary to encourage the efficient organization and implementation of non-traditional export commodities, giving consideration to how the policies implemented produce pro- or anti-export biases, and how they mesh at the subregional level. Likewise, an analysis should be made of how the State promotes research to find investment alternatives, in accordance with the potential demand that exists in third markets, and considering the possibility of using intraregional trade as a first step in making production in the countries more efficient and competitive. It is also necessary to study what organizations and institutions do to streamline procedures and enforce requirements (for example, phytosanitary) imposed by importing countries. More needs to be known about how the infrastructure of services is organized to facilitate the trade of exports and complementary exchanges at the subregional level; how the public and private sectors are coordinated, and how the latter can participate more actively in investment and the production of non-traditional agroexports.

173. The advantages that non-traditional agricultural exports offer in terms of generating added value in the economy makes it necessary to promote those products requiring the greatest degree of processing. In this regard, industrial conversion at the subregional level, especially that of industries arising from the founding of the Central American Common Market, could vary what it offers and gear it toward export agroindustries, and use subregional marketing as a means of facilitating exports to third markets. At the same time, it is important to give consideration to domestic activities that could be generated, in order to establish more backward linkages in the production process.

174. Lastly, it is important to promote shared-risk enterprises in investments for production of non-traditional exports. The amount of start-up capital needed for such enterprises, especially those related to agricultural products, is in many cases considerable, which prevents domestic entrepreneurs from making the investments by themselves. Furthermore, joint ventures can gain greater access to import markets when the foreign counterpart already has established marketing channels.

5. Natural Resources, Ecology and the Environment

175. Evidence exists throughout the Central American isthmus and the Dominican Republic of deterioration of the environment, exacerbated by the pressures of an ever-growing population, which is overexploiting natural resources to satisfy its needs. Consequently, forests, productive soils, fisheries and other vital resources are being used up at a greater rate than they are being

replaced. Likewise, related problems such as soil erosion and the sedimentation of hydroelectric dams, irrigation systems and seaports, as well as pollution of their waters have reached critical levels in many parts of the area.

176. Despite the fact that this type of exploitation of the natural resource base may provide for subsistence in the short-term, in the final analysis, it contributes to the continuous decline in food production, with the accompanying losses in per capita income and physical well-being that has been common in the subregion throughout this decade. As a consequence of poor management of natural resources, there are more and more examples of direct financial losses and lost economic opportunities for the future.

177. Most of those living in the subregion, as producers of primary goods, depend directly on the natural resource base for their subsistence. As a matter of fact, more than 25% of the gross domestic product in the subregion comes from agriculture, forestry, fishing and related activities, a dependence which will not diminish in the foreseeable future.

178. The combination of careful and sustainable development and efficient management of natural resources is one of the keys to future economic and social progress in the area. All indications are, however, that the economic expansion generated by agriculture and agroindustry in recent years has been the result of increased exploitation of natural resources rather than their careful management.

179. Both the causes and effects of many of the most serious problems related to natural resource management go beyond the borders of individual countries. The destruction of natural resources in a given country can affect, directly or indirectly, neighboring countries. Likewise, efforts made by one country to control its most urgent natural resource problems can be hampered if the country shares its watersheds, natural ecosystems or migratory biological resources with other countries not doing enough to stop the degradation of same.

180. A clear illustration of the preceding is the case of river basins that cross national boundaries. A classic example is the Lempa river, which originates in the central-southern part of Guatemala and the western part of Honduras, and flows throughout El Salvador, where it drains 49% of the national territory and provides 93% of its hydroenergy. Thus, the degradation of the basin in two neighboring countries has a significant effect on the well-being and economy of a third country.

181. To take constructive action in this regard, a strategy of joint action should be adopted that will lead to the formulation of guidelines for the integrated conservation and exploitation of tropical areas, including bodies of water, wooded areas and surrounding areas of cultivation. This strategy should include development programs involving research, technology transfer and training which will make it possible to generate and put into practice appropriate methods for sustainable management of natural resources. It must be understood that the challenge is even greater when the goal is to reverse the deterioration of the natural resource base, and make the sustainable use of shared resources, such as international river basins and shared ecosystems, more efficient.

6. Development of Fisheries and Aquaculture

182. This subject has been addressed by agricultural sector authorities for some time, and therefore cannot be ignored as if it were strictly the responsibility of other sectors. In any case, a program of this nature would complement actions which are the sole responsibility of the agricultural sector. Within the framework of economic reactivation of the area, it is necessary to promote projects which generate foreign exchange through the exploitation of natural resources, while at the same time incorporating technology designed to aid in conserving and utilizing these same resources.

183. Over the last three decades, fisheries in the area have been exploited on two different levels: one is traditional artisanal fishing, on a small scale; the other is modern industrialized commercial fishing. Artisanal fishing supplies the domestic market and makes a small contribution to exports by catching high value species such as shrimp, lobster and fish (snapper and sea bass). Commercial fishermen, with their large ships, modern equipment and heavy capital investments, are interested almost exclusively in catching shrimp and lobster for export, and fish for the production of fish meal.

184. The possibilities for expanding such economic activities, using current practices, seem to be rather limited. The most important problems identified range from overexploitation of some resources, some of which may be near the point of extinction, to overinvestment, as evidenced by the underutilization of installed capacity.

185. Consequently, there are several areas in which assistance must be given in solving certain problems, such as: the diversification of exploitation, which, to date, has involved a limited number of species; the introduction of new fishing techniques; and the more intensive use of products through improved processing and marketing. The programs would have three levels:

- a) The promotion of more intensive and expanded fishing activities.
- b) An increase in the number of fresh water aquaculture projects in the countries of the area.
- c) The introduction and development of marine aquaculture as a means of compensating for overexploitation of some species and diversification of exploitation.

186. Marine aquaculture ranges from the controlled multiplication of aquatic organisms, to their manipulation, before harvesting, in order to increase production in the fishing industry. In comparison with catching fish at sea, marine aquaculture offers certain advantages: production is predictable, growth and harvest can be monitored, species can be selected for cultivation, diseases and predators controlled, protein can be provided to the local population, etc.

187. In the countries under study, activities aimed at developing marine aquaculture have been under way for approximately fifteen years. In most of the countries, the governments have channelled resources to fresh water aquaculture efforts, as a means of providing protein to low income small farmers through the establishment of reservoirs stocked with species such as

tilapia, carp and fresh water shrimp. The objective of such a program would be:

- a) To promote the development of aquaculture and marine aquaculture.
- b) To improve the systems for processing and marketing products from the sea.
- c) To encourage the use of new production techniques for products from the sea.

The activities that could be carried out by the program are:

- a) The identification of projects by country and of subregional centers for technological research in this field.
- b) Training for national technical personnel and producers in processing and marketing, intensive fishing, marine aquaculture and aquaculture, and administration and management.
- c) The establishment of a network for the exchange and dissemination of technology and technical-professional training in this field.
- d) The establishment of subregional pilot projects both in the Atlantic and the Pacific, as models for the introduction of production techniques and intensive fishing.

7. Harmonization of Policies and Regional Investments

188. As was mentioned previously, since adjustment and stabilization policies are applied unilaterally, a regional framework of negotiation for these programs must be established, in such a way as to define priorities for Central America and strengthen the integration process. (99) There must be subregional agreement on adjustment policies, especially those aimed at the agricultural sector. As has already been pointed out, greater efficiency and productivity in the production of staple foods can not be achieved by merely implementing adjustment policies since most of these foods are produced by small farmers who do not have access to the resources and factors that would allow them to increase their production levels. Considering that greater liberalization could be implemented gradually, beginning with the streamlining of intraregional trade through the use of a common tariff, policies must be agreed on that affect the production of basic foods in such a way as to avoid price distortions among the countries involved. (100) In this regard, it is important to come to an agreement as to the implementation of policies differentiated toward the small farmer.

189. Scarce domestic resources and ever-increasing difficulties in obtaining loans and foreign assistance, because of debt problems, demand that investments be coordinated as efficiently as possible, in order to achieve the objectives set down in the development plan in which the agricultural sector, through support to small farmers, plays an essential role. Nevertheless, resource allocation can be even more efficient if a subregional system for the coordination of investments is established, since many of the programs and

projects are less costly and more profitable (economically and socially) if they are carried out jointly.

190. Efforts are already under way to coordinate the implementation of programs and projects in the five Central American countries for the purpose of mobilizing domestic resources and assigning the procurement of external funds as efficiently as possible. The Inter-Institutional Group for the Agricultural Sector (GISA), which includes most of the institutions in Central America that make investments and channel funds to the agricultural sector, is in the process of preparing a portfolio of programs and projects which reflect the priorities of the sector in the subregion, in order to coordinate implementation.

191. It has been shown how joint actions are essential to solving the debt problem. To this end, several alternatives have been proposed for converting the countries' debts into social and production investments in which joint action is a priority. A case in point is the proposal for the creation of a Central American Trust Fund for the conversion of private debt. (101) Inasmuch as the development of the agricultural sector requires the use of more local currency than that of other sectors of the economy, programs and projects in this sector would benefit most from the establishment of this type of mechanism. For example, success has already been achieved in the conversion of private debt for the implementation of natural resource conservation projects. (102)

8. Development of Production Infrastructure: Irrigation and Drainage

192. In the coming decades, agroexports will continue to play an important role in securing foreign exchange needed for investments and the operation of the economies, which will be accompanied by greater integration between industry and agriculture. Likewise, increased domestic demand will require greater production of staple grains, vegetables, tubers, sugar cane, milk, meat and eggs.

193. The alternative of upgrading technology and increasing yields will be subject to the improved use of irrigation infrastructure available in the area, as well as to investments which will increase existing capacity and guarantee access to basic inputs such as fertilizers, agrochemicals, agricultural machinery and certified seeds. This would have a positive effect on efforts to increase food production, both for domestic consumption and for export.

194. Of the 2.7 million hectares that could be irrigated in the Central American isthmus, only 14% (385,000 has.) has been used. To this underutilization must be added the deficient use of existing capacity, attributable to a lack of financing, training, appropriate techniques, agricultural research on irrigation conditions, marketing, etc. In summary, there is no integrated action through which to permanently incorporate more advanced agricultural techniques -as well-known as irrigation-. This means that the actions taken by the countries are short lived, and investments are never consolidated.

195. Despite attempts to disseminate techniques and train qualified personnel, they are few and far between and do not respond to a specific regional objective. National efforts are hampered by the appearance of new phenomena such as the saturation of the market, unknown weeds, measurement of water

supply, performance of crops and varieties in irrigation conditions, and the management of crop rotation.

196. It is obvious that a good part of the solution of incorporating irrigation techniques and large-scale drainage, because of the magnitude of the effort required and the quality of the problems to be faced, must be undertaken not only at the national, but also the subregional level. Therefore, a regional program of this type is part of the concept of agricultural modernization, and offers the opportunity to have more precise control over the volume of the supply of agricultural products.

197. Thus, the objectives of a production infrastructure development program stem from the precepts that will guide the agricultural modernization process; in this way, the increase in yields per unit of area will greatly benefit from the possibility of having a controlled and regular supply of additional water (irrigation and drainage). The application of this program would make it possible to bring into production new land such as that on the Atlantic side (drainages).

198. The objective of the program will be to support other strategic programs such as the ones on food security and exports, and should concentrate on the following areas:

- a) To establish priorities among and formulate feasibility studies for irrigation projects, with their respective investment plans.
- b) To design and put into effect mechanisms to promote the development of irrigation through credit, technical assistance and tax incentives.
- c) To draw up credit programs in each country to support the development of irrigation-based agriculture.
- d) To develop the institutional capacity to efficiently coordinate activities among the agencies which take part in the planning, design, construction and operation of irrigation and drainage works.
- e) To establish an information system on irrigation variables, useful in the agricultural planning of the country.
- f) To modify legislation for better use of irrigation projects.
- g) To conduct activities related to the training and organization of users.
- h) To provide civil hydraulic engineers with training in the design of irrigation works.
- i) To provide agricultural economists with training in the planning of irrigation-based agriculture.

199. It will also be necessary to establish a mechanism which will facilitate the execution of the program at the subregional level, and serve as a technical exchange and information network. Periodically, this mechanism should publish

reports on progress made in the subregion, and offer technical recommendations on the operation of irrigation systems and the management of crops under irrigation. This program should collaborate in the execution of national projects.

9. Improvement of Subregional and International Marketing

200. As mentioned earlier, a prerequisite for reactivating intraregional trade in Central America is the re-establishment of payment mechanisms among the member countries. However, to achieve a more efficient exchange of goods among the countries it is necessary to include agricultural commodities in multi-lateral agreements on intraregional trade, because the Central American countries do not all enjoy the same level of industrialization, and some would not be as able as others to speed up their exports to other countries in the subregion. The importance of including agricultural commodities in subregional trade becomes apparent when one considers that there is greater elasticity of supply (in this case, a greater response) in agricultural production, as a result of an increase in intraregional trade.

201. The joint handling of the exportable regional supply of some products to third markets, especially traditional exports, can lead to better prices and expanded market segments. Some proposals for such joint actions already exist, such as the establishment of a system to compensate for deficits in revenues from traditional exports. Coffee has been suggested as the most viable product to include because of the variability of its price and because it is the most important export in most of the countries. (103) It is important to remember the experience of the Dominican Republic in its efforts to join the Lomé Convention and try to propose joint actions with the Central American Isthmus.

202. Efforts at earning greater revenues from traditional exports, such as bananas, have already been made in the countries; for example, the countries of the Central American isthmus have formed a block in order to negotiate higher prices for bananas. Nevertheless, it is necessary to carry out other joint actions in order to increase negotiating power. Two proposals have been made in this regard: a) to implement rules of behavior to achieve a better negotiating position, which means that no country should negotiate alone. Rather, negotiations should be carried out jointly; and b) to destroy the myth that bananas cannot be marketed, which means no longer carrying out FOB negotiations individually, but as a group. (104)

203. Despite the fact that the inclusion of agricultural products on the agenda of GATT and the participation of the countries in this agreement opens up opportunities for gaining greater access to export markets, it must be kept in mind that negotiations by product can be less advantageous to the countries than those dealing with groups of products, even as part of integrated programs of subregional trade. The importance of joint actions aimed at increasing exports was demonstrated recently in the meetings held between representatives of the Central American isthmus and the Joint Commission of the European Community, where a joint list was presented by the countries of Central America which included the products of regional interest to be considered for preferential treatment by the Community. (105)

204. The development of infrastructure and marketing, for the purpose of making the countries more competitive and efficient in third markets, involves large investments and should be carried out through subregional coordination. In addition, joint action to strengthen transportation and marketing infrastructure make intraregional trade easier, which, in turn, increases the opportunities for exporting these products outside the subregion. Joint action in terms of the renewal of subregional transportation deals with the development of highways, railroads, coastal trading, river and lake transportation, air transport and cargo terminals. (106)

205. In the process of marketing non-traditional agricultural products there are bottlenecks with regard to transportation and storage. Transportation is most seriously hampered by the deterioration of highways, and in some countries their destruction as a consequence of war, and by inefficient services provided at port facilities, whose installed capacity is sufficient, but whose equipment is often outdated and inefficient, thus raising costs considerably. Storage is the major problem in some countries, especially with regard to refrigeration. In order to promote non-traditional exports, complementary investments must be made in the basic infrastructure of marketing. Considering the high cost of these investments, it would be wise to make them jointly, at least among the countries of the Isthmus. The advantages of achieving greater competitiveness through subregional cooperation in transportation have already been mentioned. This cooperation can be expanded to include programs that will make it possible to effectively negotiate more favorable trading terms, especially with respect to maritime cargo. It is also necessary that non-traditional product entrepreneurs organize at the subregional level.

206. Lastly, it is necessary to consider that one way to gain access to markets and speed up the trade of non-traditional exports is to pack the products properly, and become familiar with all of the non-tariff barriers imposed by the importing countries (technical and phytosanitary specifications, import duties, compensatory measures and others) which prevent the entry of non-traditional export commodities. It is important, therefore, to initiate training programs and information systems so as to gain a greater understanding of market conditions and ways to penetrate same.

10. Scientific and Technological Development

207. In order to increase the productivity and competitiveness of the agricultural sector, especially its small farmers, it is extremely important to strengthen their capacity to absorb, develop and utilize technology. Faced with this situation, however, the agencies currently involved in research and transfer in the subregion, though they have had some success, are not capable in terms of their focuses, organization or resources to face current and future challenges. This underscores the need for appropriate strategies to achieve these conditions. Such a strategy should contain three basic interrelated components:

- a) Strengthening and institutionalization of minimal technological capacity.
- b) Development of reciprocal technical cooperation as a priority strategy for the countries of the subregion.
- c) Development of new capacities and focuses.

208. The strengthening and institutionalization of minimal national technological capacities should include institutional and organizational restructuring which will make it possible to effectively redirect efforts to what is truly necessary and reduce the costs of the research and transfer involved. This means selectively directing efforts and public resources, or foreign debt, at priority problems in agriculture. It will also involve institutional and organizational readjustments to ensure true operational capability (administrative flexibility and appropriate salary levels) of the research and transfer agencies. This will also mean revising the way in which the official agencies are affected by public sector rules and regulations, and their formal relationship with official public policy-making bodies, producers, the private sector, the scientific and technological community and the agencies in charge of generation and transfer.

209. The strengthening of these designated areas should include the provision of resources, not only for needed physical infrastructure such as centers, experimental stations and laboratories and equipment, but also for adequate salaries and wages, operating expenses for research and the training of personnel. Because of the crisis and the limited institutionalization of technological functions, the countries of the area have neither the means nor the will to absorb all of the costs arising from the new proposals put forth. Even though the funding needed should derive from external as well as internal sources, given the current financial condition of the countries, the possibility of a special emergency external funding plan, which would not require the countries to go further in debt, should be studied. The participation of the private sector in specific actions will also be encouraged.

210. The development of reciprocal technical cooperation is a priority strategy for the countries of the subregion, inasmuch as they are too small to individually support research modules with a minimal critical mass in each country and with reasonable per capita allocation levels, without incurring very high expenses. Furthermore, they are limited in the benefits they can derive from technical change. At the same time, the community stands out, among the countries of the area, with regard to agroecological zones, problems and socioeconomic conditions. Both points highlight the strategic nature of reciprocal technical cooperation among the countries. Through participatory, shared and joint research on problems the countries have in common, per capita costs can be reduced and the benefits of such research can reach more people, thus achieving a more favorable allocation of resources. Efforts at establishing networks, and other joint efforts which involve priorities common to the subregion must be supported within the framework of overall planning to streamline the partial allocation of efforts and resources. Support will also be given to joint technological development initiatives among several or all the countries in specific areas.

211. The subregion needs to develop new capacities and focuses for the purpose of identifying, selecting and incorporating international breakthroughs which transform the essence of agriculture and agricultural research. This capacity can be developed through the strengthening of programs and/or the creation of new regional or university research centers. A key element of these program and centers would be a plan for training professionals in basic science. The follow-up strategy will have to be complemented with another aimed at the development of subregional centers or programs for technological development, such as biotechnology.

212. Technology is increasingly becoming a part of different industrial inputs such as seeds, agrochemicals and machinery and tools. Consequently, the viability of technical change is more and more dependent on these inputs being available when needed and at an affordable price. Traditionally, the efforts made by the countries in the area of technology have focused primarily on unincorporated technology such as agronomic and management practices. In the future, the technical performance of the countries of the subregion will depend to a large extent on the local availability, and under favorable conditions, of a supply of inputs that will contribute to their comparative advantages. In this regard, the subregion needs to develop appropriate strategies to manage its supply of inputs. The following aspects stand out:

- a) The establishment of systems to follow up on and evaluate international technology in terms of inputs, for the purpose of identifying strategic opportunities for the subregion. This can be done through programs or subregional institutions (like CATIE), in collaboration with universities and research institutes.
- b) The development of strategic action initiatives in those areas in which comparative advantages are detected: i) national initiatives in the production of seeds, based on joint ventures between research institutions and private industry; ii) joint initiatives between countries (for example, subregional multinational enterprises) for the purpose of producing and distributing inputs in fields in which such efforts are strategic and can be carried out advantageously; and iii) the development of common policies concerning inputs, especially with regard to imported inputs and raw materials used in the elaboration of these inputs.

213. A key aspect of scientific and technological development in the subregion is specific strategies for the small farmer. While research systems have focused more and more attention on the small farmer in recent years, the work to be carried out directly with them will require a far reaching and properly oriented effort. Technical change induced among small farmers does not depend on the independent generation of technology. Rather, what is needed is a joint effort among producers, researchers and extension agents working together to remove commonly recognized technical restrictions and to ensure the unique agroecological and socioeconomic on which they depend. Farmers, in turn, assess possible solutions in light of two criteria: their limited access to capital and an aversion to risk due to their socioeconomic vulnerability. To the extent that the proposed changes require the increased use of industrial inputs in the sector, there must be increased institutional support which will minimize or compensate for the capital and risk involved.

214. To expand their capacity for technological action with small farmers, the countries of the subregion will need:

- a) To increase their efforts aimed directly at small farmers through research on farms and production systems, in which farmers and technology generation and transfer agencies work together.
- b) To develop a subregional service for following up on and monitoring worldwide technological innovations applicable to small farmers,

which will provide the countries with "technological hypotheses" to aid in the tasks being carried out by each.

- c) To compile results obtained at the subregional level in order to provide feedback to the entire technological system, in such a way as to consolidate experiences related to methods and coordination and appropriate and successful technological innovations.

215. In relation with the preceding, it will be necessary to concentrate available public sector resources in priority financial and socioeconomic areas, and also to involve others, especially from the private sector, in funding the rest of the research that is needed. This final action is supported by current trends in technological change toward incorporated forms of inputs. Action in this regard will require at least two strategies:

- a) The development of policies and instruments in the countries and at the subregional level which will enable the private sector to secure or set aside part of its resources for activities related to technology generation and transfer in fields in which this sector can derive acceptable levels of benefits.
- b) The development of policies, mechanisms and norms which will facilitate joint actions between technological agencies of the State and the private sector, to achieve technological development in specific areas.

216. Lastly, special actions must be taken to support and assist the countries in the formulation of policies and instruments which will institutionalize, regulate and provide improved coordination of the actions taken by the State in regard to agricultural technology, to ensure that same will make a more effective and efficient contribution to the social and development objectives of the country. Some aspects to be considered are:

- a) Funding of research and agricultural technology transfer.
- b) Trade and technology transfer and their components.
- c) Technological property and incentives and regulation of exploitation of new technology.
- d) Technological relationship between the private and public sectors.
- e) Organization of institutions related to agricultural technology.
- f) Agricultural technology policy in relation to more general agricultural, economic and science and technology policies, and to international trade policies.

11. Strengthening of Agricultural Health Services

217. It is a well-known fact that animal and plant pests and diseases have an economic, social and environmental impact on agricultural production, conservation, transformation and marketing, which limits the availability of foods, fibers, skins and other products. Currently, however, there are few

studies and little information available on the economic losses caused by same, making it difficult to establish priorities for the instrumentation and development of programs aimed at their control and/or eradication. Despite this fact, it is obvious that these problems, which have given rise to many trade barriers in recent years, must be solved if agricultural productivity is to improve and intraregional trade and access to third markets is to be made easier.

218. One of the major actions that should be taken by the countries of the Central American isthmus and the Dominican Republic is the establishment of an information and data monitoring system on economic losses caused by animal and plant pests and disease, which will make it possible to describe and perform economic evaluations of plant and animal health problems in each country. In this way, both authorities and producers and other interested sectors will be able to establish priorities as to national or multinational programs aimed at solving the most urgent problems related to agricultural production, productivity and marketing.

219. At the same time, it is necessary to carry out in-depth studies of the organization and operations of the official animal health and plant protection services in the countries of the area, with a view to making the changes needed to strengthen these institutions at both their central offices and branches. This will enable them to make better use of their installed capacity and available resources, placing them within the organizational structure of the ministries of agriculture where they will have ready access to different levels of decision making.

220. In recent years, several animal health and plant protection problems have been identified as important in most of the countries of the area. To combat these problems, national or multinational actions currently under way must be strengthened. In the field of animal health, it is important to point out that the fact that the countries of Central America and the Dominican Republic are free of foot-and-mouth disease puts them at an advantage over the countries of South America, currently affected by this disease. This has allowed these countries to concentrate on other agricultural health problems such as screwworm, the eradication of which is almost complete in Mexico. This program should be extended throughout Central America.

221. Another agricultural health problem of multinational importance is hog cholera (classic swine fever), almost totally eradicated in Costa Rica, Panama and the Dominican Republic. Therefore, it would be highly advisable to implement or strengthen national eradication programs in the rest of the subregion, coordinating actions in such a way as to maximize resources and efforts. To a greater or lesser extent, the countries in the area have also carried out actions to combat other serious health problems, the control of which needs to be improved because they represent a threat not only to the livestock population but also to public health. Among these are ticks, torsiolo, bovine rabies, bovine brucellosis and tuberculosis and Venezuelan horse encephalitis.

222. In the field of plant protection, the countries of the area face a variety of problems. In order of importance, the most important pest is the fruit fly, specifically the Mediterranean fruit fly. Consequently, one of the priority actions that must be taken is to set up a program to establish zones

free of Mediterranean fruit flies and to control other types of flies in the Central American isthmus. Through the strategy of integrated management, efforts should be made to combat the most important pests and diseases: coffee berry borer, black leaf streak of bananas and plantains, monilia of cacao, lethal yellowing of coconut and palm spear rot, the latter being found only in Panama and Costa Rica.

223. In terms of investment programs, animal health and plant protection projects are of the type in which the objectives and goals can be easily defined and evaluated, and which are usually very profitable. In general, it is felt that in all agricultural production investment projects there should be an animal health and plant protection component, as needed.

224. One subject given considerable attention in the investment projects for the subregion is the training of professional and technical personnel in the administration and development of animal health and plant protection programs. Even though considerable sums have been invested in such activities in recent years, the dynamics of the countries themselves and the constant movement of qualified personnel from the public to the private sector, make it even more imperative that the former offer ongoing training for its personnel.

225. Diagnostic, production and verification laboratories for animal health biologics and laboratories for the identification of plant pests and diseases are the backbone of animal health and plant protection programs, respectively, and can become reference centers for the gathering and dissemination of the most advanced technology used for the diagnosis, prevention and control of animal and plant diseases and pests. In general, the animal health laboratories of the area have satisfactory infrastructures and equipment; administrative and technical systems must be set up to optimize the performance of these units. In the field of plant protection, it is necessary to encourage the establishment of these units, keeping in mind the particular needs of each country and each zone.

226. No project is complete without including the small-farm and related industrial sectors in the planning and implementation of these projects. It is necessary to encourage the establishment of boards of trustees comprised of representatives from the public and private sectors which must provide economic support for the execution and continuity of animal health and plant protection programs and, at the same time, become instruments or means of on-going evaluation for the development of these programs.

227. A key area of action is the coordination of sanitary programs at the regional level. This will streamline intraregional trade and comply with health specifications of third importing countries. One of the main requirements that agricultural exporting and importing countries must keep in mind is a good international agricultural quarantine service and animal health and plant protection emergency service. Several organizations and agencies have been working with the countries of the area to strengthen these services; the International Regional Organization of Agricultural Health (OIRSA) has developed more sustained action in this topical area. Although notable progress has been made in the countries, this field requires ongoing training and upgrading for personnel in order to keep up to date with rapid technological changes throughout the world, and the growing trade of agricultural commodities and inputs. In view of the high costs that would be involved if each country were to implement these programs individually, it would be more efficient if this type of action were carried out jointly at the subregional level. Another very relevant field, and one for which the seven

countries of the area require much support, is the detection and monitoring of pesticide and other chemical residues in meats and plant products produced for human consumption. In order to keep their places in export markets for agricultural commodities, the countries of the subregion must prove the safety of the products they export, according to the standards and levels of tolerance established by the importing countries. Hence, this area must be included in any strategy for agricultural reactivation, particularly if this strategy includes the diversification of non-traditional agricultural export commodities. Therefore, residue detection systems and laboratories that make it possible to meet domestic and foreign health requirements must be strengthened and kept in perfect working condition.

228. Another important joint action that should be undertaken is the search for alternatives to the treatment of tropical fruits, which would make it possible to eliminate the use of chemical compounds which present risks for public health. On the other hand, registration and control systems for veterinary products and agricultural pesticides must be established and/or strengthened, seeking to harmonize the application of procedures for registering, labeling and using the latter. Some countries have made notable progress in these processes; nonetheless, this area of action must be given top priority when defining joint strategies in the countries. Together with this process, the countries of the area should undertake joint actions that seek alternatives for environmental protection. For example, the agroecosystem is very open and the search for alternatives for pest control, in order to eliminate the use of chemical compounds that are considered to be a threat to public health, cannot be carried out independently by each country; other countries must be taken into account when making decisions.

12. Livestock Development

229. At present, meat exported by Central America is classified as "second grade" and demands the lowest price of all categories, and is used as raw material for processed meats. Possibilities exist for diversifying destinations and placing greater volumes in external markets, even at prices similar to those of the United States preferential market. Nevertheless, in order to make this a reality, the quality of cattle as a whole, and meat distribution systems, must be improved.

230. On the other hand, for a large portion of the population of the subregion, the consumption of meats and other livestock items is much lower than the minimum recommended. Even though increasing the level of consumption basically implies an improvement in the income of the population, the production of high protein foods such as meat, eggs and dairy products must be increased.

231. Thus, it is essential to encourage cattle production and productivity in order to increase foreign exchange earnings by increasing the exportation of beef and meeting the domestic demand for beef and dairy products. Likewise, the production of other meats must be increased in order to substitute, to some extent, the consumption of beef and provide supplementary sources of protein. Resources earmarked for livestock development must be geared toward small- and medium-scale farmers in order to first strengthen the least favored sectors of the agricultural production system.

232. It is important to note that the subregion has natural resources that will enable it to increase beef production. Although it is felt that intensively used lands should be used for agricultural production, it would be difficult to use all 4 million hectares contained in the Central American countries, for export or domestic consumption crops. The best prospects for growth are found in land that has the potential for intensive use, but which is currently underutilized due to a lack of water, but which could be irrigated since water resources do exist.

233. As a result, the strengthening of the livestock subsector could lead to the establishment of intensive livestock activity that uses irrigation lands with high pasture yield systems. This activity will require considerable efforts in regard to collateral technical aspects, as well as genetic breeding, animal health, reproduction and herd management.

234. Livestock development can also create backward linkages by using agricultural products such as forage, for example, sorghum and certain oil seeds, including pasture cultivation, once human consumption needs are met. When structuring livestock programs and projects, special attention must be given to the production of foods for animal consumption, emphasizing the improvement and management of cattle ranches, and solving the lack of pastures during the dry season, and the importation of inputs. The production of sorghum and other types of forage and oil seeds, particularly cotton seed, as well as sugar cane byproducts, could help develop high value added livestock. The possibility of establishing forward linkages should also be considered. In the short term, domestic consumption will also require increases in the production of livestock products and byproducts for the processed food industry, leather, soap, etc.

13. Agricultural Credit

235. The Executive Committee of CORECA (vice ministers of agriculture) recommended that a program of joint action be included to satisfy problems related to the availability of agricultural credit in the countries of the region. Given that this topic is highly complementary with those of other programs, it will be dealt with in a timely fashion, taking this interaction into consideration.

B. INITIAL PORTFOLIO OF SUBREGIONAL AGRICULTURAL PROJECTS

List of Projects by Area of Joint Action

Food Security

a. Food Security Program for the Central American Isthmus - Stage Two

Objective: To expand the Food Security Program (F.S.P.), establishing a regional structure in Central America which, within the framework of a regional organization, will ensure coordination of food security policy, booster substructures and promote reciprocal advantages.

Institution of Origin: CADESCA

b. Agricultural Credit Restructuring Program - PRECA

Objective: To identify and implement --on an experimental basis-- new methods for authorization and use of credit for small farmers in the Central American region, under terms and conditions in keeping with their circumstances, in an effort to render more flexible conventional mechanisms employed by banks which finance productive activities. The underlying objective of this project is to enable the small farmer beneficiary to establish his own credit needs and to propose payment mechanisms which are commensurate with his capabilities.

Institution of Origin: CADESCA

c. Regional Program for Production of Edible Vegetable Fats and Oils

Objective: To promote production of edible vegetable fats and oils and thus contribute to the self-sufficiency of the region in these products. This can be achieved by promoting production of beans and soybeans and strengthening African palm production in areas of the region suited for this crop, as well as adapting existing facilities for extracting and refining crude oils, by replacing obsolete equipment which is affecting yields of the finished product and, as a result, the price to the consumer.

Institution of Origin: BCIE

Support to Small Farmers and Rural Development

a. Regional Program of Integrated Rural Development Projects - DRI

Objective: To strengthen the technological, productive and organizational development of the productive units of small- and medium-scale farmers since, they are responsible for producing approximately sixty percent of all foodstuffs for the domestic market of the countries in the region.

Institution of Origin: BCIE

b. Strengthening Rural Settlements through the Creation of Rural Development Funds, and through Training, Evaluation and Systematization of Experiences in the Central American Isthmus and the Dominican Republic - PRACA

Objective: To support national institutions responsible for implementing agrarian reform activities as well as small farmer organizations (cooperatives, etc.), so as to strengthen areas related to this process in the different countries of the region.

Institution of Origin: IICA

c. Regional Border Development Program

Objective: To formulate plans, programs and projects for integrated development of border regions, strengthen existing institutions and procure funding for implementation purposes.

Institution of Origin: IICA/OAS

d. Technical Assistance Project for Agricultural Development - RUTA II

Objective: To strengthen the agricultural sector of the countries of Central America, to enable them to generate an ever increasing flow of foreign exchange and to ensure the supply and availability of foodstuffs to meet the needs of the population.

Institution of Origin: Government of Costa Rica

Promotion of Agroindustrial Development

a. Central American Program for Sugar Industry Conversion

Objective: To help promote conversion of the sugar industry in those mills which meet the requirements for diversifying their activities, and to recommend marketing strategies to ethanol producers which will enable them to compete effectively in the international market.

Institution of Origin: BCIE

b. Central American Agribusiness Program - Phase III

Objective: To promote the creation, diversification, increased technology and expansion of agribusiness to raise agricultural productivity and production levels as well as increase the technology of marketing systems for agricultural products produced by small- and medium-sized farmers and strengthen the capabilities of public and private institutions involved in agricultural development.

Institution of Origin: BCIE

c. Agroindustrial Development Program (Five Project Profiles)

Objective: To strengthen the organization and development of the production and marketing activities of micro-enterprises and small businesses in the agricultural sector.

Institution of Origin: CADESCA

d. Central American Program for the Production of Cellulose and Kenaff Fiber

Objective: To diversify the agricultural sector with high incidence in the different economic aggregates, through the production of pulp, paper and cardboard from Kenaff fiber, so as to increase value added, generate employment in the agricultural and industrial sectors and improve the balance of payments situation of these countries by substituting wood pulp imports.

Institution of Origin: ECLAC

Development and Diversification of Exports

a. Central American Program on Non-traditional Permanent Crops

Objective: a) To provide better and greater use of Central American natural resources; b) to help reforest vast areas which are currently either deforested or underutilized; c) to diversify agricultural production and attempt to diminish dependence on climatic factors --rain in particular--, and d) to help increase value added of agricultural production, transforming it through the agroindustrial process.

Institution of Origin: BCIE

b. Central American Program on Citrus Production

Objective: To diversify the export sector and increase vertical integration of production by increasing the area of orange production by roughly 60,000 hectares, for the production of raw materials and the industrialization of juices and concentrates in quantities that would surpass the majority of coffee mills or meat packers.

Institution of Origin: ECLAC

c. Central American Program to Boost the Export of Non-traditional Crops

Objective: To provide technical and financial support to the productive sectors of the Central American countries, so as to boost and promote non-traditional exports essentially for the international market.

Institution of Origin: BCIE

d. Program to Diversify Central American Exports - Phase I

Objective: a) To establish regional coordination mechanisms for negotiations and market access, including access to foreign markets outside the region; b) to strengthen the Central American economic integration process, as a key means of developing agroindustrial products for third markets, and c) to design an extraregional export incentive plan as part of a regional integration plan which promotes increased value added in exportable products.

Institution of Origin: IICA

Natural Resources, Ecology and the Environment

a. Strengthening Public Institutions and Supporting NGOs in the Development, Use and Conservation of Natural Resources

Objective: a) To strengthen the capabilities of the institutions in the countries to identify, formulate, administrate, implement and evaluate projects related to the development and conservation of renewable natural resources; b) to study legislation concerning natural resources (principally forests, water and rural land), and c) to promote the establishment and management of plantations and native forests in rural and semi-urban communities in Central America, all of which through the NGOs.

Institution of Origin: CATIE

b. Regional Watershed Management Project - Phase Two

Objective: a) To strengthen the institutional framework for the sustained management of natural resources in each of the participating countries, for the purpose of improving and maintaining the quality of life of the rural community; b) to effectively generate, validate and transfer appropriate methods for integrated and sustainable management of natural resources, and c) to achieve integrated and sustainable management of natural resources in the region's watersheds.

Institution of Origin: CATIE

c. Support to the Development of Watersheds in Border Areas

Objective: To develop watersheds in Central America's border areas, to achieve their sustained socioeconomic development, taking into account their biological and physical characteristics, while promoting regional integration and cooperation.

Institution of Origin: CATIE

d. Management of the Fraternidad Biosphere Reserve of the Montecristo Massif - TRIFINIO

Objective: a) To design a management plan for the reserve; b) to set up the necessary infrastructure required for its management, the training of its personnel and the provision of necessary equipment, and c) to oversee the management of the reserve.

Institution of Origin: CTPT

e. Agriculture in the Semi-arid Zone of the TRIFINIO Region

Objective: To make full economic and social use of habitats in the semi-arid areas of the TRIFINIO region, by adapting flora to optimize economic benefits without jeopardizing the environment, providing an alternative source of production for low-yield areas or areas which are not taken advantage of. To provide technical assistance, research, training, agricultural credit and marketing facilities for approximately 5,000 farmers who are owners of 60 hectares. To introduce environment-appropriate technology to improve sources of income and establish models for rational use of existing space.

Institution of Origin: CTPT

f. Regional Agrometeorology Project - Phase II

Objective: To promote better understanding of agrometeorology in Central America and apply this knowledge to achieve sustained improvement of agricultural production and productivity.

Institution of Origin: CATIE

Development of Fisheries

a. Central American Project on Aquaculture and Mariculture

Objective: To help diversify production by introducing new production alternatives through the rational use of natural resources; b) to promote the production of freshwater shrimp and fish; c) to promote the creation, diversification, expansion and increased technology of regional aquacultural enterprises, and d) to support national programs to promote aquaculture in the region, to help meet food needs and generate foreign exchange for the countries of the region.

Institution of Origin: BCIE

b. Project for Fisheries Development in Central America and Panama

Objective: This project consists of four subprojects: a) resource evaluation and fisheries management; b) taking advantage of fauna which live near shrimp; c) aquacultural development, and d) development of small-scale fisheries.

Institution of Origin: OLDEPESCA

c. Development of Tuna Fishing

Objective: To explore the possibility of creating a Central American enterprise for tuna fishing, distribution and processing.

Institution of Origin: OLDEPESCA

Standardization of Policies and Regional Investments

a. Standardization of Agricultural Policy in CORECA Countries

Objective: To strengthen national institutions and intraregional mechanisms for the design and implementation of policies to improve conditions for the poorest landless farmer and to ensure that said policies are consistent with macroeconomic goals and country objectives.

Institution of Origin: IICA

Development of Infrastructure: Irrigation and Drainage

a. Central American Program on Irrigation, Drainage and Soil Conservation

Objective: To provide financial and technical support for agricultural production in the region to facilitate implementation of irrigation projects for small- and medium-sized farmers.

Institution of Origin: BCIE

Improvement of Subregional and International Marketing

a. Inter-regional Transportation and Marketing Project

Objective: To promote the development of transportation systems to deliver perishable goods to market destinations at reasonable costs and in a timely fashion, as required by this type of merchandise. This would serve to strengthen the agricultural diversification and export promotion process.

Institution of Origin: ECLAC

b. Agricultural Input and Commodity Exchange

Objective: To develop a regional mechanism responsible for marketing a significant part of the purchases and sales conducted in the Central American region.

Institution of Origin: SIECA

Scientific and Technological Development

a. Regional Program on Improved Seeds, with Emphasis on Basic Foodstuffs and Promising Crops

Objective: To strengthen the present capacity of national research systems to produce improved seed and to help increase production and improve productivity of major crops, by introducing appropriate technology which would include the use of improved seed. The project aims at increasing improved seed production and promoting the intensive use thereof through financial and technical assistance for its producers. Emphasis will focus on production of seeds for those crops destined for human consumption.

Institution of Origin: BCIE

b. Cooperative Agricultural Research Program for Central America, Panama and the Dominican Republic

Objective: To develop agricultural research capabilities at the subregional level, as a tool for overcoming or minimizing the problems facing relatively small economies, by developing integration and cooperation mechanisms among national research and technology transfer systems in the countries of the subregion.

Institution of Origin: IICA

c. Study of the Inheritance Mechanism of Some Production-Related Characteristics in Inter-clonal Hybrids of Cacao

Objective: a) To study the behavior of hybrids in terms of yield, quality and other desirable characteristics; b) to estimate the combined ability and different components of the phenotypical variance and inheritability of certain characteristics of the fruit of the cacao seed; c) to study the way in which resistance to and/or tolerance of major diseases in crossbreeds under experimentation are inherited, and d) to select new and promising hybrids in each country and promote their immediate use by small- and medium-sized farmers in the region.

Institution of Origin: CATIE

d. Agroecological Inventory of Central America

Objective: To take inventory of agroecological resources in pilot areas selected by CATIE for future interdisciplinary research and to make this information readily available for transfer and dissemination of technology for sustainable agricultural development in the region.

Institution of Origin: CATIE

e. Use of Tissue Cultures to Achieve Somaclonal Variation in Tropical Oilseed Crops, as a Means of Increasing Resistance to Heat and Drought

Objective: a) To establish a viable method for achieving somaclonal variation in oilseed crops; b) to increase the resistance of oilseed crops to drought and heat; c) to expand the areas where these crops can be planted, and d) to spark interest in the production of oilseed crops for export, local production and processing.

Institution of Origin: CATIE

f. Nutrients Dynamics in Agroforestry Systems

Objective: Fertility maintenance requires an understanding of the dynamics of the major nutrients to help determine the best and most economic biological management techniques. The purpose of this project is to study the mechanisms governing changes in the principal nutrients required to furnish the data necessary for several simulation models.

Institution of Origin: CATIE

g. Reciprocal Technical Cooperation Program (COTER II)

Objective: To develop reciprocal cooperation among member countries, to eliminate disparity in terms of scientific and technological know-how and to speed up the growth of the agricultural sector, so that a permanent, efficient and effective mechanism is in place for technical and scientific exchange of mutual benefit to the countries of the region, and to promote the efficient and ongoing use of Program services by the agricultural public sector institutions of the CORECA member countries.

Institution of Origin: CORECA

h. Biotechnological Development Policies and Actions for Central America

Objective: To further scientific and biotechnological research policies for the Central American region, within a framework of economic integration of agricultural and agroindustrial production.

Institution of Origin: SIECA

i. Regional Program to Strengthen Agronomic Research on Basic Grains in Central America

Objective: To improve the efficiency of the Central American institutions responsible for research and generation of agricultural technology. The actions implemented for this purpose will focus on the technical problems facing small basic grain producers, with an eye to strengthening food security in the countries of the Isthmus.

Institution of Origin: CADESCA/PSA/EEC

j. Technology Generation and Transfer for Small Farmers of Basic Grains in Central America

Objective: To take full advantage of the contribution which technical change can make to the development of the countries in the region, targeting the small farmers of basic grains, which will indirectly benefit the consumer, by increasing the operating capacity of national research and extension institutions.

Institution of Origin: IICA/UNDP

Strengthening of Agricultural Health Services

a. Prevention, Control and/or Eradication of Fruit Flies in Central America and Panama

Objective: To contribute to regional development by increasing production of fruit and vegetables to improve the diet and health of the entire population, particularly in the poor rural areas by facilitating domestic and foreign trade of said production.

Institution of Origin: OIRSA/IICA

b. Agricultural Health Information and Data Monitoring Network in the Central Area

Objective: To implement a permanent mechanism for ongoing evaluation of the economic impact of diseases and pests on agricultural production, productivity and marketing in the countries of the Central Area, to help set priorities for the implementation of production programs and programs to control and eradicate these health problems.

Institution of Origin: IICA/OIRSA

c. Regional Project on Bovine Mastitis

Objective: To develop a pilot program in each of the member states to control bovine mastitis, in order to select the most appropriate and least costly technology and ensure that the program benefits the greatest possible number of producers in the region. To classify, in epidemiological terms, dairy production systems employed in medium- and small establishments, so as to develop prophylactic systems which are in keeping with the economic and social environment.

Institution of Origin: OIRSA

d. Regional Project on the Control and/or Eradication of Swine Fever in El Salvador, Mexico, Guatemala, Honduras and Nicaragua

Objective: To devise and implement a mechanism to reduce economic losses occasioned by swine fever in the participating countries, and subsequently pave the way for the establishment of programs to eradicate this disease.

Institution of Origin: OIRSA/IICA

e. Strengthening Agricultural Emergency and Quarantine Systems in the Central Area

Objective: To implement and institutionalize emergency animal health and plant protection systems in every country in the Central Area, and to strengthen international plant and animal quarantine inspection services in these same countries.

Institution of Origin: OIRSA/IICA

f. Control and Eradication of the Mediterranean Fruit Fly

Objective: To strengthen national plant protection entities to establish areas in the countries of Central America and in Panama which are free of Mediterranean Fruit Fly.

Institution of Origin: OIRSA

Livestock Development

a. Development of a Bovine Feed Strategy for Beef and Dairy Production Using a Forestry-Grazing Approach for the Humid-Dry Tropics of Central America

Objective: To increase the productivity and sustainability of bovine production systems in the tropics, improving the ecological balance of the region.

Institution of Origin: CATIE

b. Conservation and Use of Genetic Resources

Objective: To study the behavior of Romos/CLC crossbreeds among producers from different ecological areas of the country, and of F1 bulls, which are the product of criollo crosses (bulls) and Cebu breeds, among producers under tropical conditions, in order to quantify the productive potential of Barroso and Romana Rojo cattle crossbred with Cebu breeds for growth, milk production, fertility, adaption and conservation and selection programs with pure criollo herds.

Institution of Origin: CATIE

c. Use of Tree and Bush Foliage in Goat Production Systems in Central America

Objective: To analyze goat production systems in Central America and the Caribbean, employing knowledge of the use of forage species to feed ruminants and to obtain information on the food value thereof.

Institution of Origin: CATIE

d. Modernization of Animal Husbandry in Central America

Objective: To upgrade current practices to improve product yield and quality, taking into account the type of cattle feed employed and the use of agricultural byproducts.

Institution of Origin: ECLAC

IV. INSTITUTIONAL AND FINANCIAL MECHANISMS FOR IMPLEMENTATION OF THE PLAN

A. INSTITUTIONAL MECHANISMS

Given the volume of international cooperation converging on Central America at the present time, the definition of institutional mechanisms to be used to create the necessary conditions for implementing the Strategy of Joint Action for Agricultural Reactivation in the Central American Isthmus and the Dominican Republic will involve two existing dimensions which complement each other. The international cooperation coming into and earmarked for the five Central American countries shall be considered in implementing the Plan, requiring selective management of resources coming into the subregion.

A strategy has been formulated for seven countries (Central America plus Panama and the Dominican Republic), based on a diagnosis of common socioeconomic factors and incorporating a strategic vision of the subregion. It identifies areas of joint action through which the strategic objectives can be achieved.

Differentiated management between the five countries of Central America and the other two countries affects only the allocation of cooperation resources, which, as has already been mentioned, aim at supporting peace efforts in the region. Accordingly, there are no differences between the countries which could jeopardize the viability of a strategy for joint action in the agricultural sector. The sole purpose of this differentiation is to strengthen dialogue among the Central American countries and create the proper framework for international cooperation.

In order to lay the groundwork for the Plan of Joint Action for Agricultural Reactivation, existing mechanisms must be used and effectively coordinated to carry out joint action efforts as defined in the strategy.

The Plan is designed to operate on two levels. First, it is viewed as an ongoing process for reaching a consensus on the ideas contained in the Plan. Second, it will involve the implementation of joint actions. In this way, it can incorporate all the people who, in one way or another, are involved in the agricultural sector.

1. The Sectoral Component

This component is made up of various cooperation initiatives, as well as coordination mechanisms created to strengthen the regional agricultural development process.

a. IICA-SIECA Agreement

This agreement will make it possible to incorporate key agricultural strategies into the overall economic reactivation proposal for the subregion. It provides for both institutions to carry out cooperation actions in order to contribute effectively to regional integration and agricultural development. In addition, the organizations agree to develop

a process of information and consultation at the national and subregional levels regarding the strategy for agricultural reactivation, which will serve to incorporate different points of view, from both the governments and from subregional organizations, into the strategy in an orderly fashion and disseminate proposals with a view to promoting a consensus on the same. In this way, agricultural proposals can reach the proper forums where overall economic strategy is discussed, and which, in turn, will help achieve consensus on other levels.

b. Regional Unit for Technical Assistance (RUTA) - Phase II

The main objective of the Regional Unit for Technical Assistance for Agricultural Development in Central America (RUTA II) is to carry out sectoral studies that will serve as the basis for designing agricultural investment programs in the countries of the region.

One of the mainstays of the Plan of Joint Action for Agricultural Reactivation is the investment program, which consists of projects identified in the areas of joint action established in the Strategy.

The implementation of a project such as this, parallel to the Plan, will be beneficial to the countries since both stem from the same needs as articulated by the countries. It will give the project an appropriate frame of reference and close links with agricultural authorities.

The main thrust of this project's action is to create the proper framework for implementing a regional agricultural investment program that includes technical cooperation and funding components and promotes national agricultural development, through investment projects.

c. Inter-institutional Group for the Agricultural Sector - GISA

This is a coordinating body for subregional organizations, created by the Meeting of Central American Vice Presidents and broadened to include international organizations that provide technical cooperation and funding to the agricultural sector, at the request of the CORECA Council of Ministers.

This Group plays an essential role in the work carried out by the Regional Council for Agricultural Cooperation, as is evidenced in CORECA's operating plan, defined by the Council in November, 1986. In it, GISA is assigned the task of rallying the support of cooperation organizations for achieving the objectives for the region as defined by the countries. This requires a strategy that is divided into stages. First, the strategic objectives of the countries must be brought into line with each other. This should then lead to commitments to carry out concrete programs and, finally, it should bring the countries together in a regional mechanism that, while respecting individual differences, allows cooperation organizations to offer complementary assistance to the countries.

GISA is currently the vehicle through which international cooperation is coordinated for the reactivation strategy, and it has thus become an active mechanism for applying the strategy.

d. Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA)

CORECA is the highest-level agricultural forum in the subregion, carrying out its functions through a Council of Ministers, an Executive Committee of Vice Ministers, a Technical Committee of Agricultural Planning Directors, and the Executive Secretariat.

The Council operates on three levels: with the regional agricultural sector; with technical cooperation and funding agencies; and with the mechanisms of the Central American economic integration system. Interaction with the latter is extremely important in that it provides a forum for discussing proposals emanating from the agricultural sector, and lends them the necessary support.

Under the Plan, the Council will have the authority to set priorities among the projects planned for the areas of joint action; establish guidelines for executing the strategies; monitor the processes for assigning priority to regional agricultural projects and for implementing them in accordance with the basic principles set forth in the strategies. The Council will also work to merge national interests with regional interests and represent the agricultural sector's position in higher political forums (meetings of the vice presidents, joint meetings of ministers of agriculture and ministers of economy and integration).

e. Special Plan for Economic Cooperation for Central America (PEC)

The PEC is an international technical cooperation and funding instrument, organized by the United Nations in support of the Esquipulas peace accords and to contribute to socioeconomic reactivation in Central America. As such, the Strategy of Joint Action for Agricultural Reactivation serves as the framework for PEC in matters related to agriculture.

f. The Commission of the European Economic Community (EEC)

The Commission is the European cooperation instrument for initiatives in the region. Cooperation from the EEC has acquired a more permanent nature, and is carried out through agreements between governments and the Community. The Strategy of Joint Action for Agricultural Reactivation provides the appropriate background for this important cooperation initiative, as pertains to the agricultural sector.

g. The Inter-American Institute for Cooperation on Agriculture (IICA)

IICA is the specialized agency for agricultural cooperation of the Inter-American system and is responsible for formulating the Strategy for Agricultural Reactivation. It will assist the countries in managing and negotiating activities related to the execution of joint actions. The Institution will also continue to provide technical support to the forum of ministers of agriculture for the proper execution of Plan activities.

2. Multisectoral Component

This component is made up of the highest-level political bodies and multisectoral forums of the region. In addition to engaging in the usual sectoral action, it will also be necessary to maintain relations with the bodies dealing with the general aspects of regional economic development. This will allow for discussion of the agricultural strategy at appropriate levels.

a. **The Meetings of Central American Vice Presidents**

This is an instrument of political coordination for the economic and social reactivation process in the region, which arose from the Esquipulas accords. It is a high-level political body that mediates international cooperation initiatives and supports the agricultural sector.

b. **The Joint Meeting of Ministers of Agriculture and Ministers of the Economy and Integration**

This meeting provides a forum for the mechanisms of the Central American Integration process and specific discussion of the role of the agricultural sector in the development of the region. Accordingly, it represents an appropriate forum for reaching consensus on Plan activities.

c. **The Joint Meeting of Vice Ministers of Agriculture and Vice Ministers of the Economy and Integration**

This is a preparatory meeting to the meeting of Vice Presidents and serves to clarify technical positions and draw up recommendations.

3. The Institutional Process

CORECA will be in charge of coordinating actions among the various decision-making bodies and ensuring that the basic objectives of agricultural diversification and modernization presented in the agricultural reactivation strategy are met. It will strive to achieve regional consensus on the key points of the strategy, the areas of joint action, and the most important projects. It will work to coordinate the countries' actions and to match their interests with external cooperation and with international cooperation and lending organizations.

This indicates two areas of CORECA influence at the regional level: i) in the agricultural sector and ii) in the multisectoral sphere. Once regional consensus is reached on the strategic proposal within the sector itself, a consensus must be reached with the other sectors, especially those sectors that define economic policies.

The latter will be concerned with two levels of activity: the national level, where agriculture must be recognized as the key element in economic reactivation, and the regional level, where the potential of the agricultural sector to meet the challenges inherent in the proposed strategy of joint action must be acknowledged.

All of the above decision-making bodies, together with the various cooperation initiatives in Central America, and the interest other organizations show in

participating in the strategy, are dynamic elements that will contribute to implementing the proposals of the strategy. CORECA will coordinate the portfolio of projects with international technical cooperation and funding organizations, seeking to guide interest toward the areas of joint action defined in the strategy.

CORECA will coordinate these various elements through the different bodies that make up the Council. Thus, the Executive Committee, as the body monitoring the process to bring into harmony the aforementioned mechanisms (GISA, RUTA, PEC, CORECA, IICA-SIECA AGREEMENT, EEC, IICA and others) will pay special attention to: i) the process of formulating regional projects; ii) ways to implement these projects, and iii) follow-up and evaluation of the Plan of Joint Action. This means that the vice ministers of agriculture will be involved both in regional joint action and in the national activities of the Plan, since each project will have its own execution mechanisms.

Likewise, the Technical Committee's counterpart action in the formulation, negotiation and execution of projects designated for the areas of joint action will ensure the participation of the countries throughout the process.

B. FINANCIAL MECHANISMS

The two key factors for agricultural reactivation are the identification of investment opportunities and providing for funding. The programs and projects described in Chapter III concern the first factor: some of the institutional mechanisms mentioned also serve as bodies through which financial resources can be channeled for implementing programs and projects at the subregional level, for example, the Special Plan for Economic Cooperation for Central America (PEC) and the Commission of the European Economic Community (EEC). Others, such as RUTA, will serve to strengthen pre-investment units in the subregion. The following is a description of financial mechanisms aimed at consolidating a true program of subregional investment, particularly as concerns the Central American region.

1. Subregional Agencies for Strengthening and Coordinating Investments in the Agricultural Sector of Central America

a. Technical Assistance for Agricultural Development in Central America (RUTA II)

In 1987, the Ministers of Planning from the countries of the Central American Isthmus, under the leadership of Costa Rica, informed the United Nations Development Programme (UNDP) and the World Bank of their continued interest in launching stage two of the Regional Unit for Technical Assistance (RUTA). The objective of the project --co-financed by the UNDP, the World Bank, IFAD and IICA-- will be to establish or strengthen national technical units to equip them to conduct sectoral and subsectoral studies and analyze policies that serve as the foundation for designing well-balanced and realistic agricultural investment programs. The national units would also take the lead in identifying, selecting and preparing these programs, and in implementing projects that contribute to agricultural and rural development in participating countries.

Activities to enhance the capabilities of key personnel who work in the design of sectoral policies, the formulation of investment programs, and the programming, implementation, follow-up and evaluation of projects should have a significant multiplier effect by targeting low-income small farmers, providing them with access to credit and agricultural extension services.

One of the most attractive features of the project is its subregional character. Countries in the Isthmus will be able to share experiences and information when dealing with similar problems. In fact, projects prepared in each country will be used to promote the exchange of information, and seminars will be organized to examine and discuss the details of investment projects in the different agricultural subsectors of the countries. Another feature of the project will be the exchange of information on sectoral policies currently in effect in the different countries, as well as the sharing of experiences in regard to the organizations set up by the countries to regionalize and decentralize the decision-making process and the provisions of services to farmers, particularly small farmers and the rural poor.

b. The Investment Projects Center of IICA (CEPI)

The Investment Projects Center (CEPI), under IICA's Office of the Assistant Deputy Director General for Operations, cooperates with member countries and IICA units in identifying, formulating and evaluating projects. It also supports the formulation of IICA projects, provides training and helps design methods in these fields.

CEPI provides technical support for IICA units and direct services to IICA's member countries in its area of expertise.

To achieve its objectives CEPI operates in four different areas to:

- i. Examine and improve its ability to analyze the preinvestment process for agricultural development projects and/or programs, as well as their micro- and macroeconomic impact.
- ii. Upgrade horizontal coordination with IICA Program technical experts at Headquarters and in the countries.
- iii. Strengthen ties with national institutions responsible for identifying, preparing and evaluating projects and project-related training efforts.
- iv. Cooperate with IICA's in-house training process in its areas of expertise.

Given the purpose and functions of CEPI, as well as the guidelines and types of action indicated above, CEPI focuses its efforts on four complementary areas of action:

- i. Preinvestment and evaluation.
- ii. Training in agricultural project development.

iii. Analysis and development of project methods.

iv. Direct technical cooperation.

c. **International Center for Agricultural Preinvestment (CIPREDA)**

CIPREDA came into being with the support of the governments of Mexico and Guatemala and has become one of CORECA's executing bodies in the area of preinvestment. As one of its main tasks, CIPREDA focuses on preinvestment efforts, where it formulates prefeasibility and feasibility studies for subregional agricultural programs and projects. It complements its action with initiatives related to research, training and international cooperation. It currently maintains cooperative links with IICA, SIECA, and in general terms, with other institutions of the GISA.

2. Subregional Bodies for Channeling Financial Resources to the Agricultural Sector

a. **Central American Bank for Economic Integration (BCIE)**

As the funding mechanisms of the Economic Integration Program, and pursuant to its Charter, the Central American Bank for Economic Integration (BCIE) is both a funding entity for development and an institution which promotes and executes economic integration. The BCIE gives priority to regional-type projects, and the degree of financial assistance is established by taking into consideration the Projects' impact on the development and economic integration of the countries of Central America.

Bank funds are oriented toward projects that have a subregional impact, and the authorization of credit is based solely on technical and economic considerations. The Bank makes direct loans to borrowers, and also channels resources through national funding institutions.

The BCIE manages the Central American Common Market Fund, created in 1981 to settle trade accounts among the central banks of the region, through the Central American Clearinghouse. The Assembly of Governors also approved the creation of a Central American Economic and Social Development Fund (FONDESCA) to include countries from outside the region in the BCIE; its resources form a part of the Bank's assets. The Bank administers the funds contributed by Mexico through the BCIE-Mexico financial cooperation agreement, as well as those committed to FONDESCA.

3. Consolidation of a Financial Mechanism

Considering the multiple initiatives that have arisen in support of Central America and which require the formulation and implementation of joint programs and projects by the countries, a subregional preinvestment system must be built that supports the generation and ranking of the programs and projects incorporated into the portfolio of the institutions that make up the Inter-institutional Group for the Agricultural Sector (GISA). It will serve to link these countries to international funding organizations and thus enable them to obtain external resources to implement these programs and projects.

The creation of the preinvestment system should lead to ongoing coordination between the organizations that have the authority to strengthen and coordinate investment in the agricultural sector and the organizations that channel funding resources to this sector. Therefore, the Central American Bank for Economic Integration (BCIE), the Regional Unit for Technical Assistance (RUTA II), the Investment Projects Center of IICA (CEPI), the International Center for Agricultural Preinvestment (CIPREDA), and other organizations that deal with preinvestment in the subregion should all participate in this preinvestment system.

The proposed investment mechanisms must also serve to channel financial resources from other organizations to the subregion. This would include the Inter-American Development Bank (IDB), the World Bank and/or bilateral sources.

V. NOTES AND APPENDICES

A. NOTES

1. See Appendix 5 for the statistical information presented in this document.
2. The 1987 per capita rate of growth would have been negative for the seven countries, as a whole, had it not been for the high rate of growth experienced in the Dominican Republic.
3. See, for example, B.L. Rogers and A.J. Swindale, Determinantes de Consumo de Alimentos en la República Dominicana (Medford, Mass.: Tufts University, 1988), p.150; and ECLAC, Lineamientos Metodológicos de una Estrategia de Seguridad Alimentaria (LC/MEX/L.49), May 20, 1987.
4. In the case of the Dominican Republic, see B.L. Rogers and A.J. Swindale, Op. Cit.; and R. Vargas Lundius, Peasants in Distress: Poverty and Unemployment in the Dominican Republic (Lund: Lund Economic Studies No. 43, 1988).
5. United Nations, Special Plan for Economic Cooperation in Central America.
6. Plan for Immediate Action. Meeting of vice presidents with ministers of foreign relations, ministers responsible for economic integration and regional development, and ministers of planning of Central America, Guatemala, January 22, 1988.
7. This was one of the reasons why Honduras virtually ceased to participate in multilateral agreements as of the early 1970s.
8. See E. Lizano, "Prospects for Regional Economic Integration" (Document submitted to the International Commission on the Recovery and Development of Central America, San Jose, Dec. 14-15, 1987). Intraregional trade decreased from a level of US\$1,100,000,000 in 1980 to approximately US\$450 million in 1987. As the debt among the countries of Central America grew larger, the creditor nations in the area began to put up trade barriers. For example, of the debt accumulated in transactions among the Central American countries, which reached US\$732 million at the end of 1987, Nicaragua is the major debtor, with a total debt of US\$559 million. This situation led to the almost total collapse of the multilateral payment mechanism. In spite of a later attempt at using a bilateral mechanism, transactions carried out through the Central American Clearinghouse declined considerably during this decade, falling from US\$1,250,000,000 in 1980 to barely US\$29 million in 1987. The collapse of the system of payments among the Central American countries has meant that transactions are carried out by means of bilateral agreements, using US\$ or bartering rather than national currencies to make payments. Several proposals for refinancing intraregional trade have been put forward. One of them is the Central American Import Duty (DICA), denominated in US\$ and that could be negotiated freely and used multilaterally to streamline transactions, with no need to denominate a currency. Central American Monetary Council, "El DICA y el Refinanciamiento del Comercio Intrarregional" (Document submitted at the Seminar "El Mecanismo del Derecho de Importación Centroamericana (DICA) y la Reactivación Comercial en el Mercado Común Centroamericano," San Jose, January 29-29, 1988).

9. The resources of this Fund would be used to "grant credit to the debtor nations under highly flexible conditions, to give them the opportunity to pay outstanding debts between zones." Central American Monetary Council, "Propuesta para Dotar de Liquidez al Sistema Centroamericano" (Document submitted at the Seminar "El Mecanismo del Derecho de Importación Centroamericana (DICA) y la Reactivación Comercial en el Mercado Común Centroamericano," San Jose, January 28-29, 1988).

10. The importance of diversifying traditional export products as a force behind growth in Central America is highlighted in ECLAC, Lineamientos de una Política para la Recuperación y el Crecimiento del Sector Agropecuario (LC/MEX/L.50). June 10, 1987. In 1970, cotton exports represented 9.0%, 9.9% and 19.0% of the total value of exports for Guatemala, El Salvador and Nicaragua, respectively. That same year, meat exports from Nicaragua and Costa Rica represented 15% and 7.8% of total exports, respectively. In the case of sugar, the percentages were 4.3 for Costa Rica, 3.2 for Guatemala and 3.0 for El Salvador. The total land area harvested in cotton and sugar, and the land dedicated to pasture for cattle continued to grow during the 70s. Most of the increase in the production of meat, sugar and cotton went to foreign markets, which contributed to raising growth rates in the value of agroexports.

11. Up to 1975, more than 90% of the exports from Panama and the Dominican Republic were agricultural products destined for third markets, while in 1960 only 7% of the total value of exports from the five Central American countries was derived from exports made within the Common Market. Only 10 years later, this value represented 25% of the total. Most of these exports were industrial products, which means that there was significant diversification in the export sector. This can be appreciated if one considers that the total value of exports to the rest of the world, mainly agricultural products, dropped approximately 20% during the same period. Panama's participation in Central American trade began to increase as of 1975, which led to an increase of its industrial exports to the Common Market, to the point that in the 1980s industrial exports represented 10% of the total value of exports.

12. In 1985, the five most important products: coffee, cotton, sugar, bananas and meat represented 62%, 70%, 62%, 63% and 80% of the total value of exports in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, respectively.

13. The importation of these products grew from 40% to almost 50% of the total value of imports, which demonstrated the second greatest relative growth after fuel imports during the last fifteen years. This dependence on imports of raw materials and intermediate and capital goods limited the maneuverability of governments in countering the deterioration of the trade balance by reducing imports.

14. The reference here is mainly to proposals made by the United Nations, (Special Plan...), Op.Cit. and by the International Commission for the Reactivation and Development of Central America.

15. See, ECLAC, Raíces y Perspectivas de la Crisis Económica (San Jose: ICADIS, 1986) pp.9-32; ECLAC, Centroamérica: Bases de una Política de Reactivación y Desarrollo (LC/MEX/G.1/Rev.1) May 20, 1985, pp.14-19 and C. Vedovato, Politics, Foreign Trade and Economic Development in the Dominican Republic (Lund: Lund Economic Studies No. 32, 1985). The Situation in case of Costa Rica is quite

different from that in the rest of the countries. It may well be that distribution in Costa Rica is worse off now than it was thirty years ago. Nonetheless, the situation in Costa Rica is radically different from that in the other countries, in that most of its population has greater access to the benefits derived from growth.

16. Regarding these proposals, see United Nations, (Special Plan...), Op. Cit., and International Commission for the Reactivation and Development of Central America.

17. For further information on the evolution of the crisis, see ECLAC, Centroamérica: El Financiamiento Externo en la Evolución Económica, 1950-1983 (LC/MEX/L.2) March 4, 1985. It is important to consider that in some countries the increase in the fiscal deficit coincided with the initiation of large-scale public investments such as the construction of hydroelectric projects in Guatemala, El Salvador and Honduras. Also, in Nicaragua and El Salvador, a large portion of public spending is to cover the expenses incurred as a result of war. For example, in Nicaragua, domestic spending on defense has reached 62% of total public expenditures. See H. Pereira, Nicaragua: El Sector Agrario Frente al Plan de Ajuste Estructural de su Economía, Elementos de una Estrategia de Transición (Managua: IICA, 1988). It is understandable that debts owed to private foreign sources would gain in importance, since, unlike funds received through loans from multilateral or bilateral organizations, these funds are not necessarily used for investment programs. However, loans from private sources are usually issued over a shorter term and at variable interest rates. When interest rates went up at the beginning of the 80s, as a result of the austerity program and the elimination of the fixed ceiling for interest rates in the United States, the reimbursement of recently acquired private loans increased the debt service burden.

18. Solving the foreign debt problem is a priority in all of the countries, but, in relative terms, the problem is quite different in each one of them. While the per capita debt in Costa Rica, Nicaragua and the Dominican Republic is considerable, the situations in Guatemala and El Salvador are among the most favorable in Latin America.

19. For the conversion of private debt, a Central American trust fund to be administered by the BCIE is proposed. This entity would accept donations of foreign debt documents of the countries of Central America and the BCIE, from governments and foreign foundations interested in improving environmental, economic and social conditions in Central America. BCIE, Propuesta para la Creación de un Fondo de Fideicomiso en el BCIE Utilizando Recursos Provenientes de Reconversion de Deuda Externa (Doc. PLAN/PROFI-032/88), September 28, 1988. Other Funds proposed include the Central American Fund for Monetary Stabilization (FOCEM) and the Central American Fund of the Common Market (FCMC). Central American Monetary Council, "Formas de Cooperación Financiera con Centroamérica: Deuda Pública Externa" (Document submitted at the Seminar "El Mecanismo del Derecho de Importación Centroamericana (DICA) y la Reactivación Comercial en el Mercado Común Centroamericano," San Jose, January 28-29, 1988). However, it is important to keep in mind that joint negotiations by the countries of the region seem to be more promising in the case of bilateral and multilateral debt, since increasing differentiation and fragmentation in the coalition of commercial creditors has given the small countries in the region more room to maneuver individually. In this case, it

would be more viable to establish regular information channels between the countries of the area, as well as with the larger debtor nations, in order to take advantage of the rapidly changing situation of creditors and debtors. See J.A. Fuentes and L. Pira, "Central America; Foreign Debt and Turbulence in Small Countries," in R. Garcia, Central America: Crisis and Possibilities (Stockholm Institute of Latin American Studies, 1988).

20. In some countries, the inflation rate set off as a result of devaluation, combined with the liberalization of the prices of some products in the shopping basket, which was not accompanied by an increase in nominal wages, has reduced purchasing power considerably. Subsequent wage adjustments have been made in an attempt to recover some purchasing power, but they have come at a high social cost. The situation was different in Nicaragua. Along with the introduction of a new currency, there was a wage adjustment; the average wage increased by almost five hundred percent. With regard to the social impact of adjustment policies in the Isthmus, see E. Urrutia and H. Fallas, Agricultura y Cambio Estructural en los Países Centroamericanos (IICA, Program Document Series, February, 1988).

21. See SIECA, Consideraciones sobre las Modificaciones Arancelarias Realizadas por los Países Centroamericanos, Incluidas o No en Programas de Estabilización y de Ajuste Estructural (SIECA/ID-DOC-5/88) September 21, 1988.

22. Even though, as stressed earlier, the mechanism of the Central American Import Duty (DICA) can streamline transactions with no need for agreement on a common exchange rate policy.

23. P. Mandler, Sobre Indicadores de la Importancia Económica de la Agricultura y sus Limitaciones (San Jose: IICA, 1987) pp.20-21.

24. Ibid.

25. E. Jacobs, El Desarrollo Agroindustrial en la Estrategia de Reactivación Agropecuaria y el Desarrollo Económico: Perspectivas y Requerimientos (Topical document of the Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean, IICA, 1988).

26. A. de Janvry and E. Sadoulet, "Investment Strategies to Combat Rural Poverty: A Proposal for Latin America" (Mimeograph)

27. The data on agrarian reform come from OSPA, ISTA and FINATA in the case of El Salvador, and from MIDINRA and H. Pereira, Op. Cit.

28. Information from IDA, Memoria, 1987 in the case of Costa Rica; from the Agrarian Institute of the Dominican Republic; for Honduras, see C.D. Brockett, Land, Power and Poverty: Agrarian Transformation and Political Conflict in Central America (Boston: Unwin Hyman, 1988).

29. If in estimating the incidence of poverty only Guatemala, El Salvador, Honduras and Panama are included, the average would be considerably higher, inasmuch as the level of poverty in Costa Rica is much less than in the other countries. However, the agricultural sector in Costa Rica has a higher incidence of poverty than the urban sector.

30. ECLAC, Centroamérica: Crisis Agrícola y Perspectivas de un Nuevo Dinamismo.

31. R. Vargas-Lundius, Peasants in Distress: Poverty and Unemployment in the Dominican Republic Lund: Lund Economic Studies No. 43, 1988) pp. 43-44.

32. See H. Pereira, Op.Cit.; ISTA, Logros Alcanzados por el Proceso de Reforma Agraria y Acciones y Hechos Violentos que han Influido Negativamente en el Proceso de Reforma Agraria 1980-1988, San Salvador, February, 1988; and MAG, Informe de los Daños Ocasionados en el Sector como Consecuencia de la Guerra (1984-1987) (Document prepared in response to the requirements of the Esquipulas II Plan).

33. See Chapter II, Section B, Paragraph 3a for further information.

34. Even though a contraction in sugar cane production is more apparent in the Dominican Republic than in the Central American Isthmus, where the total land area harvested for this product was not reduced significantly. Also, it is necessary to consider that the contraction in the total area harvested for agroexports had its origins in national political conflicts which intensified toward the end of this decade, especially in Nicaragua and El Salvador. In some products, most notably in the case of cotton, there were also other factors which increased production costs, such as the rise in the price of inputs due to increased oil prices and the need to apply greater quantities of pesticides.

35. During the period 1961-1972 the herd grew by 45%, whereas from 1972-1979 it grew by 80% for the whole area. During the latter period, exports from the area increased by 468%, with the greatest expansion occurring in Costa Rica, Nicaragua, Honduras and Guatemala. See CADESCA, Apoyo a la Caracterización de los Productores de Granos Básicos en el Istmo Centroamericano, October 1987.

36. During the 1970s the population grew at an annual rate of 3.1% while the production of corn and beans grew at an annual rate of 2.5% and 1.8%. From 1981-1986 the situation, with respect to corn, varied very little, with corn production growing at an annual rate of 2.6%. Beans, on the other hand, averaged an annual growth rate three times greater than that of the population. During the 1970s, rice production grew at an average annual rate of 9.3%, three times greater than that of the population. However, during the 80s it has declined considerably, and is currently less than the rate of population growth. Sorghum production enjoyed acceptable growth rates during the two periods in question, at slightly above the growth rate of the population, but it must be kept in mind that sorghum is not a staple grain consumed directly by the population. Rather, it is used as an input for animal feed.

37. From 1980-1987, only sorghum production grew significantly. The production of rice, red beans, black beans and corn grew at rates of 3%, 1.8%, -11.9% and 0.5%, respectively, which is inferior to the growth rate of the population. Proyecto de Desarrollo Agrícola Nizao-Valdesia y el Area de Influencia de los Canales de Ysura y Fernando Valerio, Santo Domingo, June 1988. For a discussion of the problem in that country, see R. Vargas-Lundius, Op.Cit.

38. G. Toro, "La Ayuda Alimentaria y su Impacto en el Sector Agrícola" (Mimeograph), Guatemala, June 1988; and P. Rodríguez, "Políticas

Macroeconómicas y su Incidencia en la Agropecuaria: El Caso de la República Dominicana" (Paper presented at the international seminar on adjustment processes and their effect on agricultural policy), Santo Domingo, 1988).

39. ECLAC, (Centroamérica: Crisis...), Op.Cit., p.23. For example, in Costa Rica, where funding granted for staple grains is the most favorable in all of the Isthmus, only 6-9% of this funding corresponds to total agricultural credit. See CADESCA, Op. Cit. In the case of the Dominican Republic, loans from the Agricultural Bank favor large export producers. R. Vargas-Lundius, Op.Cit., Chap. 7.

40. This can be seen in coffee production, where there are both large and small producers. In Guatemala, farms that produce from 1 to 50 quintals have a very low yield of 7.5 q/Mz;* those that produce from 50 to 6000 quintals have a yield of 9.0 q/Mz; and those that produce more than 6000 quintals increase their yield to 16.0 q/Mz. In the Dominican Republic, the low levels of productivity at the national level are attributable primarily to the fact that most production is handled by small-scale farmers who cannot take risks and who receive neither financial support nor technical assistance. In Costa Rica, farms from 50 to 200 has. have relatively higher yields, while those of less than 10 has. have lower yields. Bank of Guatemala, Informe Económico, April-June, 1980; J.de Graff, The Economics of Coffee (Wagenigen: Pudoc Wagenigen, 1986) pp.163-164; National Agricultural Council of the Dominican Republic, Análisis de las Recaudaciones Fiscales y la Rentabilidad del Café en la República Dominicana, January 1988.

41. SIECA, Centroamérica: Evolución y Situación Actual de los Productos Básicos de Exportación (Guatemala: SIECA, 1987).

42. See the publications of the International Cotton Advisory Committee.

43. See CADESCA, Op.Cit. The maximum area for the cultivation of rice in the Dominican Republic is restricted to 31.4 has, which differs from Central America where most of the production comes from large farms. Collective settlements have been established on rice plantations obtained through agrarian reform. However, of some 7 million *tareas* (1 *tarea* = 16 ha.) distributed during the agrarian reform of 1987, between 5.3 and 6.4 million *tareas* have gone unfinanced per year. Just as in the case of the countries of Central America, there is a marked tendency to concentrate credit on rice production, which in 1986 received 52% of total financing and 83% of credit granted to the reformed sector by the Agricultural Bank. It should be pointed out that in the Dominican Republic not only has the agricultural sector received less than 10% of the expansion of credit during the last 11 years, but also a smaller number of farmers has benefitted and the area under cultivation, which has been the object of financing, has been restricted from 2.8 million *tareas* in 1975 to 2.2 million in 1987. Address by F. Cruz during the Seminar-Workshop "Veinticinco Años de Políticas Agropecuarias: Análisis, Perspectivas y Recomendaciones," Santo Domingo, January 27-29, 1988.

44. In the Dominican Republic, the concentration of credit in rice production has led to decreased production of other staple grains; for example, corn imports have risen continuously. F. Cruz, Op. Cit.

* Mz = Manzana = .7 hectare

45. In Costa Rica, the degree of mechanization in rice and sorghum production is between 70 and 80% of the total area, while, for corn and beans, it is barely 7.11%. In Nicaragua, sorghum production, which is carried out mostly on large private farms, enjoys a 70% level of technification, while same is less than 20% for corn and beans. The level of technification in the production of rice in Panama, Honduras and El Salvador is at least twice that of other staple grains.

46. The reference here is to small-scale farmers on less than 5 has. in Costa Rica and on less than a manzana in Guatemala, who produce crops basically for their own subsistence. Grains produced on the largest farms obtain the highest yields, for example, sorghum in Costa Rica, Panama, Guatemala and Nicaragua; rice in Costa Rica, El Salvador, Guatemala and Nicaragua; and corn in Costa Rica. See CADESCA, Op.Cit. It must be remembered that technification of the agricultural sector has taken place unequally in the countries under consideration. In the case of the Central American Isthmus, the intensity of fertilizer consumption at the beginning of this decade was two or three times greater in Costa Rica and El Salvador than in Guatemala, the third largest consumer. Consumption in Honduras is so low that it is only one tenth that of Costa Rica. With regard to the degree of mechanization, during the same period Costa Rica is the most mechanized in terms of the number of hectares that can be cultivated by tractor, followed by Panama and El Salvador, which are only half as mechanized as Costa Rica.

47. PREALC has estimated that in 1982 employment in the urban informal sector represented 29% of total employment in the metropolitan areas of the Central American Isthmus.

48. For example, it is estimated that in the Dominican Republic landless campesinos are engaged in some kind of work for from 3/4 to 2/3 of the year. The same is true for small-scale farmers for only one half of the year. R. Vargas-Lundius, Op.Cit., p.41. and B.L. Rogers and A.J. Swindale, Op.Cit., p.154, also pose the same problem.

49. This situation is very obvious in the Dominican Republic. The greatest scarcity of manpower is in sugar cane production, which pays the lowest wages. For example, in 1981, a sugar cane worker was paid 2.50 pesos daily for harvesting and 2.00 for clearing, while the average wage on coffee plantations was 3.50 and 4.00 pesos per day. R. Lundius-Vargas, Op.Cit., pp.45-46.

50. The most labor intensive activities in the Dominican Republic are the cultivation of tobacco, plantains, potatoes, cassava, coffee and sugar cane, where the number of man/days per hectare varies from 131 in tobacco to 70 in sugar cane. These can be compared with those for cattle production, which uses only 8 man/days per hectare. Ibid., pp.256-257. In the case of Costa Rica, see SEPSA, Situación General de la Producción Agropecuaria de la Región Chorotega and MIDEPLAN, Plan Maestro de la Región Chorotega, July 1984.

51. The settling of the agricultural frontier in Guatemala, which has occurred as a result of intense pressure from population growth and the lack of land in the highlands, has meant the free distribution of land and the construction of infrastructure in the northern part of the country. In Costa Rica, greater access to land in the Valle del General area has relieved pressure for land due to population growth in the central valley. J. Leonard, Natural Resources and

Economic Development in Central America: an Environmental Profile (Washington: International Institute for Environment and Development, 1986) pp.142-3.

52. J. Leonard, Op.Cit. pp.160-168.

53. Ibid., p.168.

54. Ibid., p.104.

55. The structure of land tenure and its effects on economic development in general go back to the outward growth model followed since the last century by the countries under study. This outward growth model involved allocating resources and factors which would favor the agroexport subsector, and relegated the small-farmer to producing crops for local consumption on marginal lands. The formation of small campesino units, who merely subsist, has come along to provide large agroexport production units with a source of cheap labor. This serves to perpetuate rural poverty and leads to further migration to urban centers in search of better opportunities.

56. In some countries, the concentration of land in the hands of a few became even more marked in the 1970s than it had been in the preceding decade. In Costa Rica and Guatemala, there was increased polarization in land tenure, with a tendency toward the concentration of land in multifamily farms and the fragmentation of family farms. A tendency toward the fragmentation of small landholdings was apparent in the Dominican Republic and Panama, and to a lesser degree in Honduras. Only in El Salvador can it be said that there was a move, although insignificant, toward less concentration and fragmentation.

57. IICA, Reforma Agraria y Desarrollo Rural: Situación y Perspectivas en el Istmo Centroamericano y República Dominicana (Al/OC-88-001), p.20.

58. Data from 1970 show that while farms of more than 35 has. in the Central American Isthmus contained 39.9% of the total land area dedicated to crops, they also contained approximately 82.2% of the total land area dedicated to livestock. The expansion of pastures and permanent grasses takes up land that is and could be used for producing staple grains. See CADESCA, Op.Cit.

59. Ibid.

60. These data coincide with ECLAC/FAO, Agricultura Campesina en América Latina y el Caribe (Santiago. ECLAC/FAO, 1986) p. 22, which states that while more than half of corn and bean production is carried out by campesinos, most rice is produced by large-scale farmers in the Central American Isthmus.

61. Ibid., p.24.

62. Ibid., p.3.

63. In this study, the gross value of production at constant 1986 prices for the four staple grains was taken as the base.

64. For example, in the Dominican Republic, where efforts have been made to improve access to land for campesinos, the changes in land tenure and use have not been sufficient to expect employment to be generated and income increased,

and thus improve the deplorable underemployment situation which currently exists in the rural sector. R. Vargas-Lundius, Op.Cit., pp.38-44.

65. ECLAC, (Lineamientos Metodológicos...), Op.Cit.

66. A long-term strategy for sustained economic growth requires intersectoral balance. A. de Janvry et.al., Rural Development in Latin America: An Evaluation and a Proposal (Topical document of the Plan of Joint Action for Agricultural Reactivation in Latin American and the Caribbean, IICA, 1988) p.41.

67. Adjustment policies introduced in early 1988 in Nicaragua, aimed at correcting price distortions, caused a considerable reduction in the production of cotton, the most important crop in terms of generating foreign exchange and providing vegetable oil for domestic consumption. The production of vegetable oil fell off in the Dominican Republic when peanut production declined as a result of the import of soy oil as food assistance. In both cases, the substitution of vegetable oil imports, by increasing national production of same, is offered as an efficient means of saving foreign exchange.

68. In the Dominican Republic, for example, it is estimated that of US\$240 million invested in the production of non-traditional agroexports, more or less US\$50 million is foreign investment, usually with national participation. Information from the Agribusiness for Consultation and Co-investment Board of the Dominican Republic (JACC).

69. The growing saturation of the traditional export markets must be added to this.

70. See C. Pomareda, "La Agricultura ante la Deuda Externa y la Reactivación Económica en los Países de CORECA" (Address made to the VII Regular Meeting of the Council of Ministers of CORECA, Guatemala, May 13-15, 1987).

71. For this reason, the new agricultural policy in Nicaragua emphasizes the need to channel resources to the small producer of agroexports, even though it is the large-scale farmers that own the best lands for producing these crops.

72. A. de Janvry et.al., Op.Cit., pp.120-122; USPADA, Estudio de Caso: Desarrollo Productivo-Organizacional de la Cooperativa Agrícola "Unión de Cuatro Pinos," Guatemala, March 1987; F. Antúñez, Resumen y Evaluación del Programa de Exportación de Melones y Sandías, UCAPE, June 1986; and S. Moquete, Impacto Social de la Diversificación en el Sector Azucarero Estatal en la República Dominicana (Santo Domingo: International Development Agency, April 1987).

73. See A. de Janvry, Op.Cit., p.41.

74. See C. Pomareda, Op.Cit.; and P. Mandler, Op.Cit.

75. C. Pomareda, Op.Cit.

76. Information from OSPA and ISTA for El Salvador, MIDINRA for Nicaragua and INDRHI for the Dominican Republic.

77. Two irrigation districts in El Salvador have yet to be fully used because the government is not participating equally with small farmers in the recovery of capital. Consequently, operation and maintenance have deteriorated considerably. In the Dominican Republic, irrigation systems in support of small, especially rice, farmers, have traditionally been built up to the place of production, but the government does nothing about building access channels. In addition, farmers from settlements established under agrarian reform have no experience in the use of the system. Therefore, only 30% of the potential of existing irrigation systems is being used, and the productivity of land has been very low and the costs very high.

78. Concerning transportation-related problems, see SIECA, El Transporte y la Integración en el Mercado Común Centroamericano.

79. The magnitude of the problem becomes apparent in the State-run sugar cane plantations near Barahona; because of the level of salinization, not only has it been necessary to plow under nearly 2000 has. out of a total of 11,500 has., but also annual sugar cane yield has fallen from an average of 140 tons per ha. to 95 tons per ha. over only a few years. R. Vargas-Lundius, Op.Cit., p.273.

80. Alternatives for controlling overuse of pesticides on cotton and for integrated pest control have already been proposed. Also, logging does not do major damage to the environment if it is accompanied by a program of reforestation and selective felling. See ECLAC, (Centroamérica: Crisis...), Op.Cit., pp.10-23; and ICAITI, Estudio de las Consecuencias Ambientales y Económicas del Uso de Plaguicidas en la Producción de Algodón en Centro América (Guatemala: ICAITI, 1986).

81. Costa Rica, the only country that has followed a policy of mini devaluations since 1982, thus avoiding the overvaluation of the colon (local currency), has had the greatest success with regard to non-traditional exports. Recent growth in the area of non-traditional exports in Guatemala coincides with a de facto devaluation, which involved leaving the currency undervalued. The overvalued currency of Honduras seems to create an anti-export bias, and the inflation in Nicaragua and El Salvador have prevented devaluations of their currencies from promoting exports. See, J.A. Fuentes, L. Garcia and L. Pira, La Evolución de las Exportaciones No Tradicionales en Centroamérica: Potencialidad y Obstáculos (Article presented during the Ninth Nordic Research Conference on Latin America, Stockholm, July 1-3, 1988).

82. Concerning the objectives of the new export promotion laws, see C.M. Castillo, Op.Cit. p.22.

83. With regard to the application of different incentives to exports in Central America, and how same are used in the different countries, see J.A. Fuentes, L. Garcia and L. Pira Op.Cit.

84. Compensatory measures have already been applied by the United States with respect to the export of flowers and cement from Costa Rica and louvered windows from El Salvador. Ibid.

85. Some countries have designed mechanisms to counter the anti-export bias of overvalued currencies, and have given exporters the freedom to cash a large portion of their foreign exchange on the black market. Such has been the case

in Honduras, where devaluation is not considered important in promoting traditional exports.

86. Efficiency must be taken into account in allocating credit. For example, in Nicaragua, easy credit was granted that covered 100% of production, which led to inefficiency. Therefore, one of the objectives of the adjustment policies of this country is to restrict the expansion of credit, so that it covers only 80% of production.

87. IICA, Estrategia para Fortalecer la Participación de la Economía Campesina en la Reactivación y el Desarrollo del Sector Agropecuario (Document submitted during the Seminar "El Papel de la Economía Campesina en la Estrategia de Reactivación y Desarrollo Agropecuario," San Jose, September 26-28, 1988), pp.74-75.

88. Ibid.

89. "Differentiated policy specifically aimed at the small-farm sector has two essential dimensions: the first is on the institutional level, while the other proposes socioeconomic actions," Ibid., p.67.

90. As has occurred in the cases of Unión de Cuatro Pinos in Guatemala and UCAPE in Panama. See Chapter II, Section C, Paragraph 3.

91. Between 1970 and 1975, small-farmer enterprises were formed in Guatemala, Honduras, Panama and the Dominican Republic that organized a considerable number of families. It should also be pointed out that "the agrarian reform laws of several countries also established small-farmer organizations, for example: in El Salvador, the cooperative associations of the reformed sector; in Nicaragua, the production, credit and service and "surco muerto" cooperatives.... IICA, (Estrategia para Fortalecer...), Op.Cit., pp. 26-27.

92. Ibid., p.26.

93. Cooperatives, relatively abundant in the region, soon prove to be an appropriate type of organization for promoting the socioeconomic demands of the middle to upper groups of farmers, with most success being enjoyed by entrepreneurial farmers. Workers' unions, because they represent mostly permanent rural wage earners, do not include the most important sectors of small farmers: the small independent family farmer, squatters, sharecroppers, landless tenant farmers and temporary wage earners. Ibid., p.27. Even though cooperatives have been organized in the reformed areas of Nicaragua, the farmers have not been able to use credit and land efficiently because these resources have been allocated with no corresponding increase in training or extension services.

94. See, for example, A.de Janvry et.al., Op.Cit.

95. United Nations, (Special Plan...), Op.Cit., p.11.

96. ECLAC, (Lineamientos de Política...), Op.Cit., pp.31-32.

97. "Acción Conjunta en los Foros Internacionales," GEPLACEA Bulletin, Vol. V, NO. 3, March 1988.

98. GEPLACEA-UNDP, "Uso de la Caña de Azúcar para Energía y Alimento," Serie Diversificación, (Mexico, 1987).

99. IICA, El Proceso de Planificación, el Ajuste Estructural y la Agricultura en los Países Miembros del CORECA "Seminar-Workshop, Antigua, Guatemala, July 10-13, 1988.

100. It is important to emphasize that, in the face of sectoral adjustment policies, a gradual removal of protection from staple foods for domestic consumption could be achieved through a common tariff toward third markets; liberalization would take place as a first step in a plan for intraregional trade. This alternative would allow the countries to become more efficient under more favorable conditions because at the beginning they would be competing under conditions which are more similar to those in the rest of the world.

101. BCIE, (Propuesta para la Creación...), Op.Cit. See Chapter II, Section B, for further information.

102. Joint cooperation could be proposed with the Dominican Republic, where there is a proposal to convert the bilateral debt with the United States into a large-scale reforestation program.

103. See L.R. Cáceres, Consideraciones sobre la Cooperación de la Comunidad Económica Europea a Centroamérica, BCIE, January 1988 (Mimeograph) pp.15-17.

104. For example, the Panama Agreement of 1974 was a joint action taken by banana growers in the area to implement a banana tax.

105. The Economic Cooperation Agreement signed by the European Economic Community and the countries of the Central American Isthmus on November 12, 1985, which took effect on March 1, 1987, is the first time the six countries in question have signed an agreement with a counterpart. See Friedrich Ebert Foundation, SIECA and FLACSO, Seminario Encuentro 87: La Integración y Desarrollo en Centroamérica (Guatemala, December 10-12, 1987. p.102.

106. SIECA, El Transporte..., Op.Cit.

B. APPENDICES

1. The Incidence of Price Fluctuations and Obstacles to Trade of Agricultural Commodities from the Area

a. Short- and long-term fluctuations and their effect on the economy

Price increases were seen in almost all agroexports during the 1970s. This increase was greater for sugar and coffee, which showed increases of more than 300% from 1973-1974 for the former and between 1975-1977 for the latter. (1) In the mid-1970s, the exchange price ratio improved considerably for sugar growers in the Dominican Republic. There was a favorable ratio for the countries of the Central American Isthmus at the end of the decade because of greater revenues from coffee exports. The improvement in international prices of agroexports, together with increased production of same, accelerated the growth in the value of exports to third countries, where average rates at current prices reached 15.3% in 1970-1975 and 18.4% in 1975-1980. (2) Likewise, expansion in meat and cotton production also played an important role in increasing the value of exports, as may be observed in the increased share of total exports gained by these commodities. (3)

Yet, why did those prices fall and stay low for so long, with little hope of them rising in the medium term? In considering the external effects of the crisis on the economies of the region, it is necessary to bear in mind that, although the export economies of Central America have been diversified, this has not been enough to reduce their dependence on price fluctuations in one or two agroexports. Consequently, any deterioration in the prices paid for these commodities has an adverse effect on the rest of the economy, inasmuch as it considerably reduces the foreign exchange available for implementation of development programs.

The preceding becomes very clear if one considers the extent to which all seven countries depend on one commodity, notorious for its unstable international price, for foreign exchange and governmental revenues. The value of coffee exports in El Salvador, Guatemala, Costa Rica, Nicaragua, Honduras and the Dominican Republic was 55.5%, 36.0%, 34.1%, 31.4%, 25.7% and 11.7% of the total value of exports, respectively. Government revenues depend to a large extent on taxes on the export of coffee, as is evident in the case of El Salvador and Guatemala, where these taxes accounted for between 10% and 25% of total tax revenues during the growth years of the second half of the 1970s. During these years, more than 90% and between 54% and 63%, in Guatemala and Honduras respectively, of total tax revenues derived from coffee exports. In the Dominican Republic, where the value of coffee as part of the total value of exports is considerably less, taxes on the export of coffee contributed 73% of total export taxes collected in 1985. (4) Consequently, when coffee prices fell in the 1980s, not only was there a decline in foreign exchange earnings, but also tax collections declined. In most of the countries these taxes are ad valorem, which means that they decline as the price of the commodity declines. It has also been shown that there is a close correlation between the domestic savings rate and coffee prices in Central America. In the second half of the 1970's, there was an increase in the domestic savings rate as a consequence of higher coffee prices, but this

situation was reversed during the first half of the 1980s when prices fell. This may indicate that international coffee prices possibly have a greater effect on the process of accumulation than national financial markets. (5)

b. Substitution, market saturation and protectionism

Regardless of the negative effects of short- and long-term fluctuations in the major export commodities on tax collections and on the level of savings in the countries of the region, other obstacles to trade must also be kept in mind. These obstacles not only influence short- and long-term fluctuations, but also place limitations on future growth in the countries. These limitations are commodity substitution, saturation of markets and increased protection of agroexports from the subregion.

First, traditional export markets become saturated as a result of a growing reduction in the income elasticity of the demand for agricultural commodities from the area and because of reduced possibilities for penetration of potential markets. (6) Also, there has been an increase in the number of producers exporting the same commodities from the area, thus creating an oversupply which has brought about a deterioration of the terms of trade. Furthermore, the economic depression in the industrialized nations has diminished their purchasing power over the last decade, which, in turn, has reinforced reduced demand.

Secondly, new technology has been developed which facilitates the production and transportation of products which substitute those currently being exported from the region. For example, the substitution of sugar with fructose and other natural and synthetic substitutes is a limitation to the expansion of this commodity as a generator of foreign exchange. With regard to bananas, there is also a tendency toward substitution. In this case, bananas are being replaced by other fresh fruits which were not available before in the industrialized nations at certain times of the year. They are now, however, as a result of new production techniques and more efficient transportation.

The growing internationalization of technology brings with it great opportunities, as well as dangers arising from the enormous technological progress being made in the developed nations, especially in the area of biotechnology, and the subsequent appropriation of know-how derived from this progress. (7).

These technological changes are combined with protectionist measures applied by existing and potential markets such as North America, Europe and Japan, in an effort to increase their self-sufficiency and protect domestic farmers. These protection measures include tariffs, duties, quality discrimination and sanitary measures that prevent penetration by agroexports from the region. Also, it is necessary to consider the huge subsidies granted to farmers in the industrialized nations, which make commodities exported from the region uncompetitive in these markets.

NOTES:

(1) See ECLAC, (Centroamérica: Crisis...), Op.Cit., p.6.

(2) It is important to point out that during these two five-year periods the highest growth rates occurred between 1972-1974, with an average of approximately 24% and in the years 1975-1977, reaching levels of 40% and 47%, which coincided with increases in sugar and coffee prices, respectively.

(3) In 1979, meat's share in total exports was 3.4%, 8.5%, 16.8% and 8.7% for Guatemala, Honduras, Nicaragua and Costa Rica, and cotton's 15%, 8.2%, and 23.9% for Guatemala, El Salvador and Nicaragua, respectively.

(4) BCIE, Diagnóstico de la Caficultura en Centroamérica y Lineamientos del Subprograma para el Control Químico de la Roya del Cafeto (PROMAG-52/83), March 1983; G. Siri, World Coffee Prices and the Economic Activity of Central American Countries (Mimeograph); and the National Agricultural Council of the Dominican Republic, Op.Cit.

(5) L.R. Cáceres, Consideraciones sobre la Cooperación de la Comunidad Económica Europea a Centroamérica, BCIE, January 1988 (Mimeograph) pp.15-17, and D. Ramírez "Consideraciones Sobre el Endeudamiento Externo de Centroamérica," in BCIE, Deuda Externa: El Caso de los Países Pequeños Latinoamericanos (San Jose: EDUCA, 1987).

(6) As occurred with the penetration of coffee into the markets of the United Kingdom and Japan during the 1950s.

(7) See C. Pomareda, La Agricultura ante la Deuda Externa y la Reactivación Económica en los Países del CORECA (Address delivered during the VII Regular Meeting of the CORECA Council of Ministers, Guatemala, May 13-15, 1987, p.6)

2. The Evolution of Non-traditional Exports

If the relative share of non-traditional exports is compared with total exports (which, in addition to those that are traditional for Central America, also include those destined for the Central American market), it is clear that the country that has had the greatest success in terms of new non-traditional exports is the Dominican Republic, which went from 38.1% of total exports in 1982 to more than 70% in 1987. The increase in Costa Rica, the second most important country with regard to increases in new non-traditional exports to third markets, went from 18.5% of total exports in 1982 to 32.4% in 1987. It is no wonder then that the two most important countries in relation to total exports from the region, in relative terms are the Dominican Republic and Costa Rica, which jointly accounted for 64% of non-traditional exports in 1987 (Panama is not included in this comparison). Special mention should be made of the increase in Costa Rica's relative share, which gradually rose from 20.6% in 1982, to 27.0%.

In spite of the fact that new non-traditional exports increased their share of total exports in the other countries, Guatemala and Honduras are the only two countries in the subregion of relative importance. In 1987, new non-traditional exports represented 13.9% for the former and 12.4% for the latter, in relation to those of the other countries considered herein. Similar efforts in El Salvador and Nicaragua have been much less successful, but this is not surprising considering the political crisis and state or war both are experiencing, which, together with their macroeconomic policies and anti-export biases, have made it impossible to promote non-traditional exports. (1)

The most important non-traditional exports of the more successful countries are primarily textiles and clothing -the importance of which has increased in light of greater production from inbond assembly industry and free trade zones -, chemicals, as in the case of Guatemala and Costa Rica, and agricultural commodities. Nevertheless, in relative terms, it is agricultural commodities that have taken on greater importance. In the Dominican Republic, in spite of the fact that minerals are a very important non-traditional export and that free trade zone industries have acquired new importance lately, it is agricultural commodities that have been offered as an alternative for diversifying the external sector. Evidence of same is the growth in exports of fruits and vegetables, aimed primarily at the U.S. market during the winter months. Moreover, of the ten most important non-traditional exports from Costa Rica, Guatemala and Honduras in 1986, 6, 8 and 5, respectively, were agricultural. (2)

Most of the increase in non-traditional agroexports has gone to the U.S. market. The increase is attributable, in part, to the Caribbean Basin Initiative (CBI), which has made it possible for these commodities to penetrate the U.S. market. The greatest beneficiaries of the CBI have been the Dominican Republic and Costa Rica, which together accounted for 45% of the total value of U.S. imports allowed in under this program. The following countries were the next largest beneficiaries: Haiti, Guatemala, Honduras and Jamaica. (3)

NOTES:

(1) Even though there has also been a strong anti-export bias in Honduras in recent years because of the overvaluation of their currency. J.A. Fuentes, L. Garcia and L. Pira, "La Evolución de las Exportaciones no Tradicionales en Centroamérica: Potencialidad y Obstáculos" (Article delivered at the Eighth Nordic Research Conference on Latin America, Stockholm, July 1-3, 1988).

(2) It must be remembered that in Honduras, as in the Dominican Republic, minerals are considered as important non-traditional exports. Ibid, pp.12-17.

(3) United States International Trade Commission, Annual Report on the Impact of the Caribbean Basin Economic Recovery Act on U.S. Industries and Consumers (USITC Publication 2024, September, 1987).

3. Adjustment and Stabilization Policies

Even though only Costa Rica and Panama have signed formal agreements with the World Bank to carry out Structural Adjustment Programs (SAP), the remaining countries are voluntarily implementing stabilization and adjustment programs which, while each is unique, have much in common. SAP can be defined as loans not directly linked to projects, aimed at supporting policy programs and institutional changes needed to modify the structure of the economy. This must be done in such a way that, in the medium term, both the rate of growth and the viability of the balance of payments can be maintained. The objective of the adjustment and stabilization programs is to expand efficient production by reducing obstacles to trade, and consumer and producer subsidies.

Except in the case of Honduras, one of the most important adjustments is to re-establish balance in the exchange rate through devaluations and the unification of foreign exchange markets, with a view to creating financial confidence in the countries and reducing the antiexport bias resulting from the overvaluation of local currencies. Also, the overvaluation of currency and the policy of maintaining multiple exchange rates lent themselves to importing food and oil at a domestic price below the real price, which increased indebtedness, because subsidized prices generated less revenue than the cost of operation of the public institutions responsible for the transactions. (1) In addition to setting a more realistic exchange rate, there are plans to liberalize international trade of the countries, for the purpose of achieving greater production efficiency and competitiveness on export markets. Liberalization of international trade is supposed to eliminate price distortions generated by the level of protection in the countries, and to reduce costs incurred as a result of production subsidies.

In all of the countries, the implementation of the adjustment and stabilization programs has involved measures leading to a reduction of the fiscal deficit: a) attempts have been made to increase fiscal revenues by means of tax reforms and increases in charges for public services; and b) efforts have been made to reduce public spending through increased efficiency of public administration and reduced public service investments. The first adjustment measure taken in Guatemala, in 1983, was an attempt to achieve greater equilibrium in the balance of payments by reducing the fiscal deficit, by means of a tax reform. In El Salvador, a change in the income and inheritance tax was undertaken; relatively high rates of tax collection were achieved, as were increases in the rates paid for electricity, water and the use of ports. In Honduras, adjustments have only involved measures related to taxes, tariffs and charges for public services. In Costa Rica, the reduction of the fiscal deficit has been a key factor in stopping spiralling inflation. One of the most important objectives in Nicaragua is to reduce the fiscal deficit by reorganizing fiscal revenue, to the point that it will drop from 14% of GDP to 8-10% in 1988 and, eventually, to 4-6%. Only in Nicaragua has it been possible to make significant changes in public institutions, where proposals exist to reduce public sector structures and positions in order to end up with personnel that are more qualified and that have greater managerial skills. Also, in the Dominican Republic, Costa Rica and Honduras steps are being taken to privatize State-owned enterprises, thus reducing government subsidies of these entities.

(2)

Almost all of the countries are implementing policies aimed at increasing the efficient production of food for domestic consumption, especially staple grains. This is due to the fact that: a) the price policy concerning the consumer market basket, the main objective of which is to maintain the purchasing power of the low-income strata of society, has removed incentives for agricultural production because it has not been accompanied by price supports; (3) b) in the instances in which there have been ceiling prices for the market basket, together with producer subsidies, the State has had to incur considerable expense because of the distortion of prices between producers and consumers; and c) support prices have led to inefficient food production. Since, in most of these countries, these are the only institutions that can trade in staple grains, it has been necessary to export surpluses at lower prices because of their relative lack of competitiveness on occasions. This has been the case in the marketing of rice by INESPRES in the Dominican Republic, CNP in Costa Rica and IMA in Panama. For example, "INESPRE began to buy and sell rice at a loss of DR\$5.15 per quintal, which later grew to DR\$8.15, and in February 1985, reached DR\$19.70." (4) In the case of IMA, in Panama, rice has caused the greatest losses, "when, as a result of a support price markedly higher than the international price, the level of production exceeded domestic demand and grew in relation to the IMA level of purchases." (5)

These sectoral adjustment policies have involved a reduction in the protection afforded agricultural commodities for domestic consumption, as well as a liberalization of prices for basic consumer products. Furthermore, in addition to policies which make better use of the pricing system to increase efficiency in agricultural production, it has also been suggested that it is necessary to transfer to the private sector duties such as gathering, storage and sale, which have traditionally been carried out by marketing institutions. In Panama, it is suggested that IMA concern itself only with the formation, organization and indirect regulation of the market. In Costa Rica, since 1986, "the CNP no longer guarantees that it will purchase the rice harvest, and does not market surpluses; marketing is in the hands of private enterprise, and losses due to surpluses, which used to mean a significant fiscal deficit for the CNP, are now to be assumed by the producers and industrialists that make up the National Rice Office (ONA)." With regard to INESPRES of the Dominican Republic, it has been suggested that, in addition to transferring the five agroenterprises it controls into private hands, that the domestic and foreign marketing of agricultural commodities be determined by the free play of the market. (6)

NOTES:

(1) In this regard, the experience of the Dominican Republic should be emphasized. See H. Guiliani, La Necesidad del Ajuste en la Economía Dominicana (Address given during the annual meeting of the Association of Commercial Banks of the Dominican Republic, April 25, 1985).

(2) Such is the case of CODESA in Costa Rica, the marketing of timber in Honduras and the enterprises that INESPRES managed in the Dominican Republic.

(3) See H. Guiliani, Op.Cit., for further information on how the freezing of prices removed incentives for production in the Dominican Republic.

(4) National Agricultural Council, Alternativas para una Nueva Política de Intervención de Precios: El Caso de INESPRES.

(5) Management Analysis Center, "Lineamiento de una Política de Precios Agrícolas," in Proyecto para Mejorar las Instituciones Agrícolas de Panama, January 1986, p.1.

(6) Management Analysis Center, Op.Cit. OIKOS advisors, Opciones de Políticas de Precios y Comercialización para Granos Básicos, Azúcar y Leche (Preliminary Report on the Project "Precios, Incentivos y Reformas de Política en el Sector Agropecuario de Costa Rica," September, 1987), p.9 National Agricultural Council, Op.Cit., pp.74-108.

4. The Ratio between Yields and Costs with the Application of New Production Technology: The Case of Staple Grains (1)

A high level of mechanization and the application of new production techniques implies higher production costs, in the sense that an increase in productivity implies these greater costs. What is important is to consider to what extent these greater costs are justified in terms of the additional production per area cultivated. For example, in the case of corn and sorghum in Guatemala and beans in Costa Rica, yields rose when mechanization was intensified, but not enough to offset increases in production costs. Nonetheless, in the production of corn, rice and sorghum, in El Salvador, and of rice in Panama, the increase in productivity has more than made up for the increase in costs.

It is important to compare the production cost per unit in determining the degree of competitiveness among the countries. It is quite clear that Guatemala is the most competitive in corn production, not only because of its low production costs, but also because of its high productivity indexes. It is also the most competitive in the case of beans, but not because of high yields, which, in comparison with the other countries, are the lowest. Rather, it is because of production costs which are below those of the other countries. Likewise, in spite of the high level of productivity in the production of rice and sorghum in El Salvador, and rice in Panama, Guatemala is still more competitive because of its low costs. Guatemala is followed by El Salvador and Honduras in terms of competitiveness in the four staple grains under consideration. El Salvador leads Honduras slightly in rice and sorghum production because of more extensive technification of the sector. The level of technification in Honduras is very low, and the level of competitiveness in the four staple grains, which is carried out primarily by small-scale farmers, is not attributable to high levels of productivity, which are the lowest in the area, but rather to the low costs incurred in subsistence farming. This relationship can be seen very clearly if the traditional production of corn in Honduras and that of the Dominican Republic are compared. The former is more competitive because of its low production costs, in spite of the superior productivity of the latter. In the case of rice, Costa Rica and Panama are more competitive than Honduras, mainly because of the high degree of technification they both enjoy. The Dominican Republic, which depends to a great extent on rice for domestic consumption, has the highest production costs and one of the lowest rice yields, in comparison with the other countries of the subregion.

The achievement of a realistic exchange rate affects the level of competitiveness in the staple grains among the countries of the subregion. For example, Guatemala's high degree of competitiveness in the basic grains must also be attributed to the proexport bias of the devaluation of its currency, which has even been undervalued. In spite of currency devaluations in El Salvador, high inflation rates have overvalued the currency again, and the country could be more competitive if it had a more realistic exchange rate. The same is true in Honduras, where the Lempira has remained at 2/US\$ for years. Nevertheless, this country could also be more competitive if it modernized its production structure for staple grains. In Costa Rica and the Dominican Republic, where continuous mini-devaluations have kept the exchange rate near its equilibrium point, and in Panama, where the Balboa is on a par with the U.S. Dollar, an increase in competitiveness will have to come from a reduction in costs and/or an increase in productivity.

NOTES:

(1) Nicaragua is not included in this analysis because of different problems involved in comparing data from this country with those from the other countries in the subregion.

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TABLE 1
GROWTH RATE OF GDP AT MARKET PRICES
AVERAGE ANNUAL RATES

| COUNTRY | 1950-60 | 1960-70 | 1970-75 | 1975-80 | 1980-85 | 1986 | 1987* |
|-----------------------|---------|---------|---------|---------|---------|-------|-------|
| COSTA RICA | 7.10 | 6.80 | 6.00 | 5.30 | 0.20 | 4.40 | 3.00 |
| EL SALVADOR | 4.70 | 5.60 | 5.50 | 1.00 | -2.20 | 0.90 | 2.00 |
| GUATEMALA | 3.80 | 5.50 | 5.60 | 5.70 | -1.20 | 0.20 | 2.50 |
| HONDURAS | 3.10 | 5.00 | 2.30 | 7.30 | 0.70 | 1.80 | 4.50 |
| NICARAGUA | 5.30 | 6.90 | 5.10 | -3.20 | 0.90 | -0.40 | 1.50 |
| PANAMA | 4.80 | 8.00 | 4.70 | 6.30 | 2.30 | 3.00 | 1.50 |
| DOMINICAN REPUBLIC | 5.70 | 5.10 | 9.00 | 4.90 | 1.60 | 1.90 | 7.00 |
| AVERAGE | 4.93 | 6.13 | 5.46 | 3.90 | 0.33 | 1.69 | 3.14 |

* Preliminary

Source: Based on ECLAC data

TABLE 2
 GROWTH RATE OF TOTAL POPULATION
 (Average Annual Rates)

| COUNTRY | 1950-55 | 1955-60 | 1965-70 | 1970-75 | 1975-80 | 1980-85 |
|-----------------------|---------|---------|---------|---------|---------|---------|
| COSTA RICA | 3.6 | 3.8 | 3.7 | 3.2 | 3.0 | 2.7 |
| EL SALVADOR | 2.7 | 3.0 | 3.1 | 3.6 | 3.0 | 3.0 |
| GUATEMALA | 2.9 | 2.9 | 2.9 | 2.8 | 2.8 | 2.9 |
| HONDURAS | 3.3 | 3.4 | 3.5 | 2.8 | 3.6 | 3.4 |
| NICARAGUA | 3.1 | 3.2 | 3.2 | 3.2 | 2.8 | 3.4 |
| PANAMA | 2.6 | 2.9 | 3.0 | 3.0 | 2.8 | 2.2 |
| DOMINICAN REPUBLIC | 2.8 | 3.1 | 3.0 | 2.8 | 2.4 | 2.4 |
| AVERAGE | 3.0 | 3.2 | 3.2 | 3.1 | 2.9 | 2.9 |

Source: Based on ECLAC data.

TABLE 3
GROWTH RATE OF GDP PER CAPITA
(Annual growth rates)

| COUNTRY | 1950-60 | 1960-70 | 1970-75 | 1975-80 | 1980-85 | 1986 | 1987* |
|-----------------------|---------|---------|---------|---------|---------|-------|-------|
| COSTA RICA | 3.30 | 3.30 | 3.40 | 2.20 | -3.20 | 1.80 | 0.20 |
| EL SALVADOR | 1.80 | 2.30 | 2.50 | -1.80 | -4.00 | -0.80 | 0.40 |
| GUATEMALA | 0.90 | 2.60 | 2.80 | 2.90 | -2.10 | -2.70 | -0.40 |
| HONDURAS | -0.20 | 1.90 | -0.80 | 3.60 | -2.70 | -1.40 | 1.10 |
| NICARAGUA | 2.10 | 3.60 | 1.80 | -5.80 | -0.30 | -3.70 | -1.70 |
| PANAMA | 2.00 | 4.90 | 1.90 | 3.50 | -2.40 | 0.80 | -0.50 |
| DOMINICAN REPUBLIC | 2.70 | 2.20 | 6.00 | 2.50 | 0.10 | -0.50 | 4.60 |
| AVERAGE | 1.80 | 3.00 | 2.50 | 1.00 | -2.10 | -0.90 | 0.50 |

* Preliminary.

Source: Based on ECLAC data.

TABLE 4
GROSS DOMESTIC INVESTMENT BY COUNTRY
Percentage (1960-1986)

| COUNTRY | Proposition of GDP Averages | | | Growth Rate Averages † | | |
|---------------------------------------|--------------------------------|-----------|-----------|---------------------------|---------|------------|
| | 1960-69 | 1970-1979 | 1980-86†† | 1961-70 | 1971-80 | 1980-86††† |
| COSTA RICA | 18.60 | 23.70 | 20.60 | 7.90 | 9.30 | 1.00 |
| EL SALVADOR | 13.60 | 16.80 | 12.10 | 3.00 | 3.60 | -4.70 |
| GUATEMALA | 11.40 | 13.80 | 10.20 | 6.60 | 5.20 | -7.00 |
| HONDURAS | 17.00 | 21.40 | 18.20 | 8.90 | 7.10 | -8.00 |
| ¹ NICARAGUA | 19.20 | 15.70 | 21.40 | 8.60 | 0.20 | 8.30 |
| PANAMA | 21.50 | 27.90 | 18.80 | 13.40 | 3.80 | -2.40 |
| ² DOMINICAN REPUBLIC | 13.30 | 23.60 | 15.00 | 12.20 | 10.00 | -1.40 |
| AVERAGE | 16.37 | 20.40 | 16.60 | 8.70 | 5.60 | -2.00 |

† Cumulative growth.

†† Preliminary

††† 1986 estimated value.

1. Not including 1980, since it is impossible to calculate the rate of growth because of the negative value registered in 1979.

2. Not including figures for 1985 and 1986.

Source: IDB

TABLE 5
 VALUE OF EXPORTS
 (Millions of dollars)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1986 | 1987* |
|-----------------------|-------|-------|---------|---------|---------|---------|---------|---------|
| COSTA RICA | 87.0 | 111.7 | 231.0 | 493.1 | 1 000.8 | 930.0 | 1 083.0 | 1 175.0 |
| EL SALVADOR | 102.6 | 190.0 | 236.1 | 533.0 | 1 075.3 | 679.0 | 727.0 | 580.0 |
| GUATEMALA | 115.9 | 192.0 | 297.1 | 640.9 | 1 519.9 | 1 060.0 | 1 058.0 | 1 045.0 |
| HONDURAS | 63.1 | 128.2 | 178.2 | 309.6 | 850.3 | 778.0 | 878.0 | 850.0 |
| NICARAGUA | 63.8 | 149.2 | 178.6 | 374.9 | 450.5 | 301.0 | 243.0 | 270.0 |
| PANAMA | 39.0 | 92.5 | 130.3 | 330.9 | 2 267.1 | 1 959.0 | 2 412.0 | 2 370.0 |
| DOMINICAN REPUBLIC | 157.4 | 125.5 | 214.0 | 893.9 | 962.0 | 738.0 | 722.0 | 750.0 |
| TOTAL | 628.8 | 989.2 | 1 465.3 | 3 576.3 | 8 125.9 | 6 445.0 | 7 123.0 | 7 040.0 |

* Preliminary.

Source: ECLAC.

TABLE 6

GROWTH RATE OF THE VALUE OF EXPORTS
(Annual average rate)

| COUNTRY | 1960-65 | 1965-70 | 1970-75 | 1975-80 | 1980-85 | 1985-86 | 1986-87 |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|
| COSTA RICA | 5.6 | 15.8 | 17.0 | 15.8 | 0.0 | 16.4 | 8.5 |
| EL SALVADOR | 10.2 | 4.0 | 18.0 | 17.6 | -10.2 | 7.1 | -20.2 |
| GUATEMALA | 9.6 | 10.4 | 16.6 | 21.0 | -6.8 | -0.2 | -10.7 |
| HONDURAS | 17.8 | 8.8 | 11.4 | 22.6 | -1.2 | 12.8 | -3.2 |
| NICARAGUA | 18.0 | 4.6 | 10.6 | 2.8 | -6.6 | -19.3 | 11.1 |
| PANAMA | 18.2 | 6.2 | 22.4 | 109.4 | 1.2 | 23.1 | -1.7 |
| DOMINICAN REPUBLIC | -3.0 | 11.4 | 33.6 | 3.2 | -0.6 | -2.2 | 3.9 |

Source: ECLAC.

TABLE 7

DEFICIT IN THE CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS[†]
(Millions of dollars)

| YEAR | COSTA RICA | EL SALVADOR | GUATEMALA | HONDURAS | NICARAGUA |
|------|------------|-------------|-----------|----------|-----------|
| 1950 | -2.3 | -13.7 | 0.0 | 0.6 | -0.5 |
| 1955 | 7.8 | -1.3 | 5.6 | 7.9 | -0.6 |
| 1960 | 19.3 | 28.4 | 25.5 | -2.6 | 11.2 |
| 1965 | 71.3 | 16.2 | 38.6 | 10.3 | 27.2 |
| 1970 | 76.6 | -6.8 | 8.0 | 67.5 | 43.1 |
| 1973 | 112.1 | 45.7 | -8.5 | 38.0 | 95.8 |
| 1974 | 267.1 | 135.3 | 101.9 | 122.9 | 269.4 |
| 1975 | 217.8 | 95.2 | 65.2 | 124.9 | 197.5 |
| 1976 | 203.4 | -18.8 | 78.6 | 114.6 | 47.6 |
| 1977 | 226.0 | -21.6 | 37.1 | 138.9 | 192.4 |
| 1978 | 364.0 | 292.3 | 271.2 | 170.0 | 34.3 |
| 1979 | 554.4 | -14.9 | 208.9 | 205.9 | -90.1 |
| 1980 | 658.0 | 0.9 | 165.0 | 330.0 | 491.0 |
| 1981 | 407.6 | 271.6 | 574.1 | 321.3 | 563.0 |
| 1982 | 274.3 | 271.4 | 399.9 | 249.3 | 514.2 |
| 1983 | 330.4 | 211.1 | 224.9 | 254.0 | 519.5 |
| 1984 | 265.3 | 243.1 | 378.2 | 371.6 | 505.0 |
| 1985 | 337.9 | 199.0 | 247.2 | 373.9 | 681.0 |
| 1986 | 165.0 | 173.0 | 32.0 | 271.0 | 685.0 |

[†] Goods and services, not including factors of production.

Source: ECLAC, based on official figures.

TABLE 8

TRADE PRICE INDEX
(Base year: 1970= 100)

| COUNTRY | 1960 | 1965 | 1975 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| COSTA RICA | 101.1 | 107.6 | 85.5 | 111.9 | 97.0 | 97.3 | 84.9 | 90.0 | 83.0 | 84.7 | 79.7 |
| EL SALVADOR | 116.1 | 107.0 | 87.2 | 120.2 | 111.2 | 93.6 | 85.5 | 82.6 | 72.3 | 78.0 | 87.7 |
| GUATEMALA | 124.6 | 110.8 | 70.8 | 113.6 | 96.0 | 94.2 | 82.9 | 72.1 | 60.0 | 70.1 | 71.6 |
| HONDURAS | 106.8 | 125.3 | 91.4 | 113.8 | 103.4 | 106.4 | 92.2 | 87.5 | 82.6 | 81.9 | 88.1 |
| NICARAGUA | 110.2 | 112.3 | 79.4 | 97.0 | 81.5 | 78.7 | 69.5 | 62.3 | 54.5 | 57.7 | 61.7 |
| PANAMA | 87.7 | 105.8 | 110.7 | 75.2 | 75.3 | 76.2 | 75.2 | 61.3 | 62.8 | 62.8 | 68.4 |
| DOMINICAN REPUBLIC | 73.6 | 82.3 | 149.4 | 85.5 | 86.6 | 103.2 | 106.1 | 72.7 | 78.9 | 83.4 | 89.7 |

* Price index for goods and services, not including factors of production.

Source: ECLAC, based on official figures.

TABLE 9

OUTSTANDING FOREIGN DEBT BY COUNTRY, 1978-86
(Millions of dollars at year-end)

| COUNTRY | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|-----------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| COSTA RICA | 1 683.2 | 2 113.8 | 2 744.7 | 3 264.6 | 3 463.3 | 4 315.6 | 4 122.1 | 4 191.0 | 4206.0 |
| EL SALVADOR | 913.5 | 889.9 | 914.5 | 1 130.5 | 1 404.7 | 1 679.9 | 1 709.4 | 1 735.0 | 1 770.0 |
| GUATEMALA | 813.0 | 1 040.1 | 1 166.3 | 1 394.0 | 1 600.8 | 1 853.1 | 2 436.6 | 2 596.0 | 2 665.0 |
| HONDURAS | 935.2 | 1 184.0 | 1 469.3 | 1 682.4 | 1 800.5 | 2 081.8 | 2 307.6 | 2 712.0 | 2 844.0 |
| NICARAGUA | 1 229.7 | 1 284.5 | 2 196.6 | 2 575.9 | 3 151.0 | 4 001.5 | 4 881.0 | 5 633.1 | 6 000.3 |
| PANAMA | 2 318.0 | 3 510.8 | 1 969.0 | 3 315.6 | 3 932.7 | 4 389.3 | 4 412.8 | 4 710.0 | 4 929.0 |
| DOMINICAN REPUBLIC | 1 375.7 | 1 644.2 | 2 004.3 | 2 311.8 | 2 496.4 | 2 918.6 | 3 056.5 | 3 294.0 | 3 424.0 |
| TOTAL | 9 268.3 | 11 667.3 | 13 464.7 | 15 674.7 | 17 849.4 | 21 239.8 | 22 926.0 | 24 871.1 | 25 838.3 |

Source: IDB.

TABLE 10
CENTRAL GOVERNMENT INCOME AND EXPENDITURES BY COUNTRY
(Percentage of GDP)

| COUNTRY | 1970 | | | 1980 | | | 1985 | | | 1986 | | |
|-----------------------|--------|--------------|--------|--------|--------------|--------|--------|--------------|--------|--------|--------------|--------|
| | Income | Expenditures | Diff.† | Income | Expenditures | Diff.† | Income | Expenditures | Diff.† | Income | Expenditures | Diff.† |
| COSTA RICA | 12.9 | 12.8 | 0.1 | 12.8 | 20.8 | -8.0 | 16.6 | 18.7 | -2.1 | 16.6 | 20.2 | -3.6 |
| EL SALVADOR | 10.9 | 12.3 | -1.4 | 11.4 | 18.6 | -7.2 | 13.4 | 17.1 | -3.7 | 14.8 | 18.8 | -4.0 |
| GUATEMALA | 8.7 | 9.9 | -1.2 | 9.5 | 14.2 | -4.7 | 7.8 | 9.6 | -1.8 | 9.0 | 10.8 | -1.8 |
| HONDURAS | 12.3 | 15.4 | -3.1 | 14.9 | 22.7 | -7.8 | 15.6 | 25.0 | -9.4 | 15.7 | 23.0 | -7.3 |
| NICARAGUA | 10.7 | 11.9 | -1.2 | 21.5 | 33.1 | -11.6 | 32.1 | 54.9 | -22.9 | 32.1 | 48.9 | -16.8 |
| PANAMA | 15.7 | 0.0 | -4.8 | 19.9 | 25.8 | -5.9 | 20.4 | 24.1 | -3.7 | 20.3 | 22.4 | -2.1 |
| DOMINICAN REPUBLIC | 16.1 | 17.7 | -1.6 | 14.3 | 17.5 | -3.2 | 11.2 | 13.2 | -2.0 | 13.3 | 11.4 | 1.9 |
| TOTAL | | | -13.2 | | | -48.4 | | | -45.6 | | | -34.7 |

† Positive value: surplus.

‡ Negative value: deficit.

Source: IDB.

TABLE 11

STRUCTURE OF INCOME DISTRIBUTION AND
PER CAPITA INCOME LEVELS ABOUT 1980
(1970 DOLLARS)

| LEVELS | COSTA RICA | | EL SALVADOR | | GUATEMALA | | HONDURAS | | NICARAGUA | | PANAMA | |
|-------------------|------------|----------------|-------------|----------------|-----------|----------------|----------|----------------|-----------|----------------|--------|----------------|
| | % | AVERAGE INCOME | % | AVERAGE INCOME | % | AVERAGE INCOME | % | AVERAGE INCOME | % | AVERAGE INCOME | % | AVERAGE INCOME |
| 20% POOREST | 4.00 | 176.70 | 2.00 | 46.50 | 5.50 | 111.00 | 4.30 | 80.70 | 3.00 | 61.90 | 2.70 | 120.0 |
| 30% BELOW AVERAGE | 17.00 | 500.80 | 10.00 | 155.10 | 14.50 | 202.70 | 12.70 | 140.00 | 13.00 | 178.20 | 10.00 | 304.0 |
| 30% ABOVE AVERAGE | 30.00 | 883.80 | 22.00 | 341.00 | 25.00 | 364.30 | 23.70 | 254.60 | 26.00 | 350.20 | 27.00 | 822.0 |
| 20% RICHEST | 49.00 | 1 165.20 | 66.00 | 1 535.50 | 55.00 | 1 133.60 | 59.30 | 796.30 | 58.00 | 1 199.80 | 60.30 | 2 710.0 |

Source: ECLAC, based on official figures.

TABLE 12

ANNUAL CHANGES IN THE CONSUMER PRICE INDEX BY COUNTRY 1961-1986

| RATE OF INFLATION | COUNTRIES | 1961-70 | COUNTRIES | 1971-80 | COUNTRIES | 1985 | COUNTRIES | 1986 |
|---|--------------------|---------|--------------------|-----------|--------------------|------|--------------------|-------|
| Countries with stable prices (annual price increases of less than 5%). | EL SALVADOR | 0.7 | | | PANAMA | 1.0 | PANAMA | -0.1 |
| | GUATEMALA | 0.8 | | | HONDURAS | 3.4 | HONDURAS | 4.4 |
| | PANAMA | 1.3 | | | | | | |
| | NICARAGUA | 1.7 | | | | | | |
| | DOMINICAN REPUBLIC | 2.1 | | | | | | |
| | HONDURAS | 2.2 | | | | | | |
| | COSTA RICA | 2.5 | | | | | | |
| Countries with moderate inflation (annual price increases of between 5% and 15%). | | | PANAMA | 7.1 | | | DOMINICAN REPUBLIC | 9.7 |
| | | | HONDURAS | 8.0 | | | COSTA RICA | 11.8 |
| | | | GUATEMALA | 9.3 | | | | |
| | | | DOMINICAN REPUBLIC | 10.5 | | | | |
| | | | EL SALVADOR | 11.0 | | | | |
| | | | COSTA RICA | 11.2 | | | | |
| Countries with high inflation (annual price increases of more than 15%). | | | NICARAGUA | 14.7 | | | | |
| | | | | | COSTA RICA | 15.1 | EL SALVADOR | 31.9 |
| | | | | | GUATEMALA | 18.7 | GUATEMALA | 36.9 |
| | | | | | EL SALVADOR | 22.3 | NICARAGUA | 681.6 |
| | | | | | DOMINICAN REPUBLIC | 37.5 | | |
| | | | | NICARAGUA | 219.5 | | | |

Source: IMF, International Financial Statistics, May 1987 and previous issues.
 Additional data furnished by the countries. Calculations based on a comparison of annual averages of the monthly consumer price index.

TABLE 13

HEALTH CONDITIONS BY COUNTRY
(In percentages)

| INFANT MORTALITY RATE (Per 1,000 live births) | Central American Isthmus | COSTA RICA | EL SALVADOR | GUATEMALA | HONDURAS | NICARAGUA | PANAMA | DOMINICAN REPUBLIC |
|--|-----------------------------|------------|-------------|-----------|----------|-----------|--------|-----------------------|
| 1950 | 90.00 | 90.20 | 81.20 | 106.80 | 85.60 | 82.00 | 68.40 | 139.10 |
| 1960 | 65.80 | 68.80 | 76.30 | 91.90 | 52.00 | 70.20 | 56.90 | 103.20 |
| 1970 | 62.30 | 61.50 | 66.60 | 87.10 | 33.20 | 42.80 | 40.50 | 78.40 |
| 1980 | 49.00 | 19.10 | 60.00 | 69.20 | 31.40 | 42.90 | 22.00 | 73.10 |
| 1985 | 60.00 | 20.20 | 71.00 | 70.40 | 81.50 | 84.50 | 32.50 | 63.50 |
| Numbers of doctors per 10, 000 inhabitants | | | | | | | | |
| 1960 | 2.50 | 3.70 | 1.90 | 2.20 | 1.90 | 3.60 | 3.70 | -- |
| 1970 | 3.60 | 5.10 | 2.40 | 2.80 | 2.70 | 5.80 | 5.90 | -- |
| 1980 | 4.30 | 6.50 | 2.60 | 3.90 | 3.00 | 6.50 | 7.90 | -- |
| 1985 | | | | | | | 3.50 | |
| Number of beds per thousand inhabitants | | | | | | | | |
| 1960 | 2.60 | 4.50 | 2.20 | 2.60 | 1.60 | 2.30 | 3.90 | -- |
| 1970 | 2.40 | 4.00 | 1.90 | 2.30 | 1.70 | 2.50 | 3.10 | -- |
| 1980 | 2.00 | 3.80 | 1.40 | 1.60 | 1.50 | 2.00 | 3.70 | -- |
| 1985 | | | 1.30 | 1.60 | 1.40 | 1.60 | -- | -- |
| Health care expenditures as a share of GDP at current prices | | | | | | | | |
| 1970 | 1.20 | 0.40 | 1.30 | 1.10 | 1.30 | 1.50 | 2.00 | 1.20 |
| 1980 | 1.30 | 1.00 | 1.30 | 1.00 | 1.20 | 1.00 | 2.00 | 1.60 |
| 1985 | | 0.70 | 1.50 | 0.00 | 0.00 | 0.00 | 4.90 | 1.50 |

Source: ECLAC, 1979 (CE/CEPAL/6, 1125).

TABLE 14
CALORIE AND PROTEIN INTAKE BY COUNTRY

| COUNTRY | DAILY CALORIE INTAKE BY INHABITANT (UNITS) | | | | DAILY PROTEIN INTAKE BY INHABITANT (GRAMS) | | | |
|-----------------------------|---|---------|---------|---------|---|-------|-------|-------|
| | 1960 | 1970 | 1978 | 1985 | 1960 | 1970 | 1978 | 1985 |
| CENTRAL AMERICAN ISTHMUS | 1983.00 | 2217.00 | 2213.00 | - | 54.10 | 59.70 | 58.10 | - |
| COSTA RICA | 2153.00 | 2400.00 | 2477.00 | 2772.00 | 52.10 | 58.20 | 58.40 | 64.40 |
| EL SALVADOR | 1805.00 | 1845.00 | 2075.00 | NA | 51.60 | 49.80 | 54.40 | NA |
| GUATEMALA | 1903.00 | 2233.00 | 2166.00 | 2298.00 | 52.60 | 61.80 | 57.80 | 60.40 |
| HONDURAS | 1936.00 | 2216.00 | 2074.00 | 2208.00 | 52.10 | 58.40 | 53.50 | 54.00 |
| NICARAGUA | 2185.00 | 2471.00 | 2453.00 | NA | 64.10 | 73.50 | 70.40 | NA |
| PANAMA | 2312.00 | 2517.00 | 2357.00 | 2422.00 | 57.30 | 62.30 | 59.50 | 60.70 |
| † DOMINICAN REP. | 1862.00 | 2083.00 | 2316.00 | 2468.00 | 40.40 | 45.00 | 50.30 | 51.90 |

† Figures for the 1961, 63, 69, 71, 79-81 and 83-85 periods.

Source: ECLAC, based on official figures.

TABLE 15
ESTIMATED INCIDENCE OF POVERTY BY COUNTRY ABOUT 1980
(IN PERCENTAGE)

| DEGREE OF POVERTY | | | | | |
|-------------------|----------------|---------------------------|---------------------------------|--------------------|------------------|
| | TOTAL (A+B) | EXTREME POVERTY (A) | BASIC NEEDS NOT MET(B) | NOT POOR (C) | TOTAL (A+B+C) |
| COUNTRIES | | | | | |
| TOTAL ISTHMUS | 60.40 | 37.70 | 27.70 | 39.60 | 100.00 |
| URBAN | 47.70 | 25.70 | 22.00 | 52.30 | 100.00 |
| RURAL | 69.40 | 46.20 | 23.20 | 30.60 | 100.00 |
| COSTA RICA | | | | | |
| URBAN | 13.60 | 7.40 | 6.20 | 86.40 | 100.00 |
| RURAL | 34.20 | 18.70 | 15.50 | 65.80 | 100.00 |
| EL SALVADOR | | | | | |
| URBAN | 68.10 | 50.60 | 17.50 | 31.90 | 100.00 |
| RURAL | 57.60 | 44.50 | 13.10 | 42.40 | 100.00 |
| RURAL | 76.40 | 55.40 | 21.00 | 23.60 | 100.00 |
| GUATEMALA | | | | | |
| URBAN | 58.10 | 22.80 | 35.30 | 41.90 | 100.00 |
| RURAL | 66.20 | 36.20 | 30.00 | 33.80 | 100.00 |
| HONDURAS | | | | | |
| URBAN | 68.20 | 56.70 | 11.50 | 31.80 | 100.00 |
| URBAN | 43.90 | 30.60 | 13.30 | 56.10 | 100.00 |
| RURAL | 80.20 | 69.70 | 10.50 | 19.80 | 100.00 |
| NICARAGUA | | | | | |
| URBAN | 61.50 | 34.70 | 26.80 | 38.50 | 100.00 |
| URBAN | 45.60 | 21.60 | 24.00 | 51.40 | 100.00 |
| RURAL | 80.00 | 50.00 | 30.00 | 20.00 | 100.00 |
| PANAMA | | | | | |
| URBAN | 53.90 | 23.70 | 30.20 | 46.10 | 100.00 |
| URBAN | 42.90 | 11.80 | 31.10 | 57.10 | 100.00 |
| RURAL | 67.30 | 38.30 | 29.00 | 32.70 | 100.00 |

Based on data furnished by the countries

(A) Takes only food into account

(B) Takes minimum spending on food into account

TABLE 16
LITERACY RATES

| COUNTRY | 1970 | | | 1980 | | |
|-------------|-------|-------|-------|-------------------|-------|-------|
| | TOTAL | RURAL | URBAN | TOTAL | RURAL | URBAN |
| GUATEMALA | 51.8 | 65.9 | 26.7 | 45.6 | 60.0 | 20.8 |
| EL SALVADOR | 40.3 | 55.3 | 19.8 | 42.9 ^a | NA | NA |
| HONDURAS | 47.5 | 54.4 | 21.1 | 33.2 | 43.2 | 15.0 |
| NICARAGUA | 46.9 | 68.7 | 23.9 | 12.1 ^b | NA | NA |
| COSTA RICA | 10.7 | 14.7 | 4.4 | 10.2 ^b | NA | NA |
| PANAMA | 20.7 | NA | NA | 11.9 ^b | 38.1 | 6.3 |

a.1983; b.1981.

Source: M.E. Gallardo and J.R. López, Centroamérica: La Crisis en Cifras
(San José: IICA/FLACSO, 1986) p.200

TABLE 17

a

URBAN AND RURAL POPULATION WITH ACCESS TO DRINKING WATER
(IN PERCENTAGES)

| COUNTRY | 1969 | | 1979 | |
|-------------|-------|-------|-------|-------|
| | URBAN | RURAL | URBAN | RURAL |
| GUATEMALA | 86.5 | 11.0 | 89.4 | 15.6 |
| EL SALVADOR | 79.8 | 25.0 | 66.8 | 34.1 |
| HONDURAS | 96.8 | 18.5 | 91.5 | 35.1 |
| NICARAGUA | 87.3 | 5.9 | 80.9 | 9.4 |
| COSTA RICA | 100.0 | 53.6 | 99.9 | 64.0 |
| PANAMA | 95.2 | 6.7 | 100.0 | 63.8 |

a. Population serviced either directly (household tap) or with "easy access".

b. 1977.

Source: M.E.Gallardo and J.R.López, Centroamérica: La Crisis en Cifras (San José, IICA/FLACSO, 1986) p.215

TABLE 18
 DWELLINGS BY NUMBER OF ROOMS AND NUMBER OF OCCUPANTS ABOUT 1973
 (In percentages)

| | NUMBER OF ROOMS | | | |
|-----------------------------|---------------------|--------|--------|-------------|
| | 1 | 2 | 3 | MORE THAN 3 |
| GUATEMALA | 30.1 | 41.1 | 14.4 | 14.4 |
| ^a EL SALVADOR | 61.0 | 23.6 | 7.4 | 8.1 |
| ^b HONDURAS | 19.8 | 43.7 | 19.6 | 16.9 |
| ^a NICARAGUA | 38.6 | 31.1 | 16.6 | 13.8 |
| COSTA RICA | 4.4 | 10.0 | 18.7 | 67.0 |
| ^c PANAMA | 38.2 | 29.4 | 15.9 | 16.6d/ |
| | NUMBER OF OCCUPANTS | | | |
| | 1 to 2 | 3 to 4 | 5 to 8 | 9 AND MORE |
| GUATEMALA | 12.7 | 27.4 | 47.1 | 12.8 |
| ^a EL SALVADOR | 17.0 | 24.9 | 44.1 | 14.0 |
| ^b HONDURAS | 12.1 | d/ | 72.3 | 15.6 |
| ^a NICARAGUA | n.a. | n.a. | n.a. | n.a. |
| COSTA RICA | 14.3 | 27.0 | 41.8 | 16.9 |
| ^c PANAMA | 23.7 | 25.7 | 39.0 | 11.7 |

a.1971; b.1974; c.1970; d.also includes between 3 and 4 occupants.

Source: N. E. Gallardo, and J.R. López, Centroamérica: La Crisis en Cifras
 (San José. IICA/FLACSO, 1986) p.214.

TABLE 19
 SHARE OF AGRICULTURAL EXPORTS IN TOTAL VALUE OF EXPORTS
 (In percentages)

| YEAR | COSTA RICA | EL SALVADOR | GUATEMALA | HONDURAS | NICARAGUA | PANAMA | DOMINICAN REP. |
|---------|------------|-------------|-----------|----------|-----------|--------|----------------|
| COFFEE | | | | | | | |
| 1965 | 41.70 | 49.90 | 49.30 | 17.50 | 16.70 | 1.00 | N.A. |
| 1970 | 31.60 | 48.70 | 34.70 | 15.20 | 17.90 | 1.60 | N.A. |
| 1975 | 19.60 | 35.80 | 25.90 | 19.40 | 12.80 | 0.80 | 4.80 |
| 1979 | 33.80 | 55.70 | 35.30 | 27.10 | 28.00 | 3.30 | 16.40 |
| 1985† | 34.10 | 55.50 | 36.00 | 25.70 | 31.40 | 5.10 | 11.60 |
| BANANAS | | | | | | | |
| 1965 | 25.30 | 0.00 | 1.20 | 42.40 | 0.00 | 44.20 | 0.00 |
| 1970 | 28.90 | 0.00 | 4.70 | 42.00 | 0.20 | 57.30 | 0.00 |
| 1975 | 29.20 | 0.00 | 5.40 | 21.00 | 1.60 | 21.20 | 0.00 |
| 1979 | 20.80 | 0.10 | 2.00 | 27.70 | 1.20 | 22.30 | 0.00 |
| 1985† | 21.80 | 0.00 | 3.90 | 37.80 | 6.10 | 25.90 | 0.00 |
| COTTON | | | | | | | |
| 1965 | 1.00 | 20.00 | 18.20 | 4.85 | 44.90 | 0.00 | 0.00 |
| 1970 | 0.20 | 8.80 | 8.00 | 6.60 | 18.80 | 0.00 | 0.00 |
| 1975 | 0.00 | 14.30 | 11.60 | 1.50 | 25.50 | 0.00 | 0.00 |
| 1979 | 0.00 | 8.20 | 15.00 | 1.60 | 23.90 | 0.00 | 0.00 |
| 1985† | 0.00 | 1.40 | 6.70 | 1.00 | 33.10 | 0.00 | 0.00 |
| SUGAR | | | | | | | |
| 1965 | 4.20 | 0.80 | 2.20 | 0.00 | 0.00 | 2.30 | N.A. |
| 1970 | 4.30 | 3.00 | 3.20 | 0.70 | 5.50 | 4.10 | 48.50 |
| 1975 | 29.40 | 16.00 | 18.50 | 2.30 | 11.30 | 9.80 | 62.70 |
| 1979 | 1.90 | 2.60 | 4.30 | 1.80 | 3.50 | 8.80 | 22.00 |
| 1985† | 0.50 | 2.30 | 2.60 | 3.10 | 1.10 | 9.10 | 21.40 |
| BEEF | | | | | | | |
| 1965 | 3.00 | 0.00 | 2.50 | 2.50 | 3.90 | 0.00 | 0.00 |
| 1970 | 7.80 | 0.00 | 4.40 | 5.70 | 15.00 | 1.35 | 0.00 |
| 1975 | 7.70 | 0.00 | 2.60 | 6.20 | 1.90 | 0.55 | 0.00 |
| 1979 | 8.70 | 1.40 | 3.40 | 8.50 | 16.80 | 0.50 | 0.00 |
| 1985† | 5.80 | 0.50 | 0.90 | 1.90 | 4.60 | 0.00 | 0.00 |
| CACAO | | | | | | | |
| 1965 | 2.00 | 0.00 | 0.10 | 0.00 | 0.00 | 3.20 | N.A. |
| 1970 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 1.80 | 8.90 |
| 1975 | 1.10 | 0.00 | 0.10 | 0.00 | 0.00 | 1.90 | 2.70 |
| 1979 | 1.00 | 0.00 | 0.70 | 0.10 | 0.10 | 1.30 | 8.40 |
| 1985† | 0.30 | 0.00 | 0.10 | 0.40 | 0.40 | 0.20 | 7.80 |

† Preliminary.

Source: SIECA, Series Estadísticas Seleccionadas de Centroamérica.
 Dirección General de Aduanas y Puertos de República Dominicana.

TABLE 20
 DESTINATION OF EXPORTS 1960-1984
 (In percentage)

| COUNTRY | 1960 | | | | 1985 | | | |
|-----------------------|-------|-------|-------------|-------|-------|-------|-----------|-------|
| | CACM | LAFTA | CARIBBEAN 1 | RW2 | CACM | LAFTA | CARIBBEAN | RW |
| COSTA RICA | 2.70 | 1.30 | 1.30 | 94.80 | 16.40 | 1.80 | 1.70 | 80.20 |
| EL SALVADOR | 10.50 | 0.00 | 0.20 | 89.20 | 24.00 | 0.00 | 0.20 | 75.80 |
| GUATEMALA | 4.40 | 0.80 | 0.00 | 94.80 | 19.20 | 0.10 | 0.40 | 80.30 |
| HONDURAS | 13.50 | 2.60 | 1.90 | 82.00 | 16.60 | 0.00 | 1.40 | 82.00 |
| NICARAGUA | 4.00 | 0.30 | 0.20 | 95.50 | 8.30 | 0.10 | 0.20 | 91.30 |
| TOTAL CACM | 7.00 | 1.00 | 0.70 | 91.30 | 16.90 | 0.40 | 0.80 | 81.90 |
| PANAMA | 0.00 | 0.50 | 0.00 | 99.50 | 0.70 | 0.40 | 0.00 | 98.80 |
| DOMINICAN REPUBLIC | 0.00 | 0.00 | 0.20 | 99.80 | 0.00 | 0.70 | 0.00 | 99.30 |

| COUNTRY | 1970 | | | | 1975 | | | |
|-----------------------|-------|-------|-------------|-------|-------|-------|-----------|-------|
| | CACM | LAFTA | CARIBBEAN 1 | RW2 | CACM | LAFTA | CARIBBEAN | RW |
| COSTA RICA | 20.30 | 0.30 | 3.20 | 76.20 | 21.70 | 3.70 | 3.60 | 71.00 |
| EL SALVADOR | 31.20 | 0.20 | 0.40 | 68.30 | 27.50 | 1.30 | 1.20 | 70.00 |
| GUATEMALA | 35.30 | 0.40 | 1.00 | 63.30 | 27.10 | 0.80 | 2.00 | 70.10 |
| HONDURAS | 11.00 | 0.10 | 5.90 | 83.00 | 10.20 | 2.30 | 9.50 | 78.00 |
| NICARAGUA | 25.50 | 0.60 | 1.30 | 72.60 | 24.70 | 0.50 | 0.50 | 74.30 |
| TOTAL CACM | 24.70 | 0.30 | 2.40 | 72.70 | 22.20 | 1.70 | 3.40 | 72.70 |
| PANAMA | 2.90 | 1.00 | 0.20 | 95.80 | 4.60 | 0.90 | 1.20 | 93.40 |
| DOMINICAN REPUBLIC | 0.00 | 0.70 | 0.20 | 99.10 | 0.00 | 0.60 | 0.40 | 99.00 |

| COUNTRY | 1980 | | | | 1984 | | | |
|-----------------------|-------|-------|-------------|-------|-------|-------|-----------|-------|
| | CACM | LAFTA | CARIBBEAN 1 | RW2 | CACM | LAFTA | CARIBBEAN | RW |
| COSTA RICA | 27.60 | 1.90 | 4.90 | 65.70 | 19.60 | 2.10 | 4.30 | 74.00 |
| EL SALVADOR | 27.60 | 0.20 | 0.70 | 71.50 | 21.90 | 0.20 | 1.00 | 76.90 |
| GUATEMALA | 29.10 | 2.00 | 1.50 | 67.40 | 26.10 | 2.20 | 2.30 | 69.40 |
| HONDURAS | 11.00 | 0.60 | 1.80 | 86.50 | 6.80 | 0.30 | 3.10 | 89.80 |
| NICARAGUA | 9.40 | 0.20 | 0.70 | 89.70 | 9.60 | 1.80 | 0.20 | 88.50 |
| TOTAL CACM | 20.90 | 1.00 | 1.90 | 76.20 | 16.80 | 1.30 | 2.20 | 79.70 |
| PANAMA | 13.20 | 4.60 | 1.30 | 80.80 | 11.60 | 1.40 | 0.30 | 86.70 |
| DOMINICAN REPUBLIC | 0.10 | 8.90 | 1.40 | 89.60 | 0.20 | 2.60 | 2.50 | 94.70 |

1. Including Panama.
2. Rest of the world.

Source: ECLAC.

TABLE 21
COMPOSITION OF EXPORTS 1982-1987
(IN PERCENTAGES)

| | | GUATEMALA | | | | | 1 |
|---|-----------------|-------------|------|------|------|------|------|
| | | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | Traditional | 51.9 | 49.7 | 50.5 | 61.6 | 62.8 | 52.8 |
| 3 | Old non Trad. | 8.4 | 11.8 | 12.8 | 7.7 | 7.2 | 6.2 |
| | New non Trad. | 10.8 | 9.2 | 10.9 | 11.1 | 12.2 | 19.2 |
| 4 | Central América | 28.8 | 29.4 | 25.7 | 19.6 | 17.8 | 21.8 |
| | | EL SALVADOR | | | | | 1 |
| | | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | Traditional | 66.6 | 70.9 | 66.3 | 73.6 | 75.5 | 63.2 |
| 3 | Old non Trad. | 2.6 | 1.5 | 2.8 | 1.4 | 2.3 | 3.6 |
| | New non Trad. | 5.9 | 5.8 | 9.2 | 11.2 | 10.2 | 13.9 |
| 4 | Central América | 24.9 | 21.8 | 21.7 | 13.8 | 12.1 | 19.4 |
| | | HONDURAS | | | | | 1 |
| | | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | Traditional | 64.1 | 59.8 | 61.9 | 64.0 | 69.1 | 66.7 |
| 3 | Old non Trad. | 10.8 | 10.9 | 11.5 | 9.5 | 8.7 | 11.3 |
| | New non Trad. | 17.5 | 10.5 | 20.2 | 23.3 | 19.6 | 19.0 |
| 4 | Central América | 7.7 | 8.8 | 6.5 | 3.2 | 2.6 | 2.9 |

.../...

Continuation Table 21....

| NICARAGUA | | | | | | |
|--------------------|------|------|------|------|------|------|
| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | | | | | | 1 |
| Traditional | 71.7 | 79.5 | 79.3 | 81.7 | 78.6 | 73.4 |
| 3 | | | | | | |
| Old non Trad. | 5.3 | 3.9 | 3.3 | 4.3 | 3.5 | 4.0 |
| New non Trad. | 10.1 | 8.8 | 7.8 | 6.0 | 11.5 | 16.6 |
| 4 | | | | | | |
| Central América | 12.8 | 7.8 | 9.6 | 8.0 | 6.3 | 6.0 |
| COSTA RICA | | | | | | |
| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | | | | | | 1 |
| Traditional | 61.5 | 61.7 | 59.9 | 63.3 | 63.6 | 58.0 |
| 3 | | | | | | |
| Old non Trad. | 0.7 | 0.5 | 1.1 | 2.4 | 2.0 | n.a. |
| New non Trad. | 18.5 | 14.5 | 19.6 | 18.9 | 25.2 | 32.4 |
| 4 | | | | | | |
| Central América | 19.2 | 23.2 | 19.3 | 15.4 | 9.3 | 9.6 |
| DOMINICAN REPUBLIC | | | | | | |
| | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 |
| 2 | | | | | | 1 |
| Traditional | 52.1 | 47.7 | 47.8 | 40.8 | 29.0 | 22.0 |
| 3 | | | | | | |
| Old non Trad. | 9.8 | 9.9 | 11.2 | 10.3 | 7.9 | 7.6 |
| New non Trad. | 38.1 | 42.5 | 41.0 | 49.0 | 63.0 | 70.4 |

1. Preliminary.

2. Includes coffee, bananas, cotton, sugar and beef.

3. Guatemala: shellfish, cardamon and oil; El salvador: shellfish; Honduras: shellfish and wood; Nicaragua: shellfish; Costa Rica: shellfish and cacao; Dominican Republic: tobacco and cacao.

4. Total exports to Central America.

Source: Consejo Monetario Centroamericano and CEDOPEX

TABLE 22
 SHARE OF NEW NON-TRADITIONAL EXPORTS TO THIRD
¹
 MARKETS, BY COUNTRY 1982-1987

| COUNTRY | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 ² |
|----------------|------|------|------|------|------|-------------------|
| GUATEMALA | 16.2 | 12.8 | 13.4 | 12.5 | 11.6 | 13.9 |
| EL SALVADOR | 5.3 | 5.6 | 7.2 | 8.3 | 7.0 | 6.0 |
| HONDURAS | 15.2 | 16.3 | 16.1 | 19.6 | 15.8 | 12.4 |
| NICARAGUA | 5.3 | 4.8 | 3.3 | 1.9 | 2.5 | 3.8 |
| COSTA RICA | 20.6 | 15.8 | 21.2 | 18.8 | 24.8 | 27.0 |
| DOMINICAN REP. | 37.4 | 42.6 | 38.8 | 38.8 | 38.2 | 37.0 |

1. Excluding, in addition to exports to Central America, traditional exports such as coffee, bananas, cotton, sugar and beef, and old non-traditional exports such as shellfish, cardamom and oil in Guatemala, shellfish in El Salvador, shellfish and timber in Honduras, shellfish in Nicaragua, shellfish and cacao in Costa Rica, and tobacco and cacao in the Dominican Republic.

2. Preliminary.

Source: Central American Monetary Council and CEDOPEX.

TABLE 23

SHARE OF IMPORTS IN CENTRAL AMERICA, PANAMA AND THE
DOMINICAN REPUBLIC BY ECONOMIC DESTINATION, 1960-1984
(IN PERCENTAGES)

| | 1960 | 1965 | 1970 | 1975 | 1980 | 1984* |
|---|--------|-------|-------|-------|-------|-------|
| NON-DURABLE CONSUMER GOODS | 19.60 | 17.80 | 17.70 | 12.80 | 13.90 | 11.80 |
| | 12.00 | 11.10 | 11.30 | 7.10 | 7.30 | 5.20 |
| FUEL | 7.90 | 8.40 | 6.80 | 18.20 | 21.10 | 25.00 |
| RAW MATERIALS AND INT.GOODS FOR AGRIC.AND INDUSTRY | 33.90 | 35.30 | 37.70 | 36.20 | 36.20 | 39.80 |
| BUILDING MATERIALS | 6.10 | 5.50 | 3.70 | 3.50 | 2.80 | 1.90 |
| AGRIC.CAPITAL GOODS | 2.60 | 3.20 | 2.40 | 2.70 | 1.90 | 1.80 |
| INDUSTRIAL CAPITAL GOODS | 12.80 | 14.20 | 14.10 | 12.70 | 10.80 | 9.10 |
| TRANSP.CAPITAL GOODS | 5.10 | 4.60 | 6.20 | 6.80 | 5.80 | 5.50 |
| TOTAL | 100.00 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

* Preliminary

Source: ECLAC

TABLE 24

PERCENTAGE OF VALUE ADDED OF AGRICULTURAL AND MANUFACTURING SECTORS.
(PERCENTAGE OF GDP AT CONSTANT PRICES)

| | 1970 | 1975 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| COSTA RICA | | | | | | | | | |
| AGRICULTURE | 23.50 | 20.90 | 18.00 | 17.80 | 19.20 | 19.70 | 20.00 | 20.40 | 19.60 |
| MANUFACTURING | 15.50 | 17.90 | 18.60 | 18.60 | 19.00 | 18.10 | 18.00 | 18.40 | 18.80 |
| EL SALVADOR | | | | | | | | | |
| AGRICULTURE | 28.10 | 27.10 | 26.70 | 27.80 | 28.40 | 28.70 | 27.70 | 27.60 | 26.60 |
| MANUFACTURING | 15.20 | 15.40 | 15.30 | 15.00 | 14.70 | 14.30 | 14.50 | 14.50 | 14.90 |
| GUATEMALA | | | | | | | | | |
| AGRICULTURE | 29.80 | 30.60 | 27.70 | 27.10 | 27.10 | 27.20 | 27.50 | 27.90 | 28.00 |
| MANUFACTURING | 16.70 | 16.10 | 17.30 | 17.60 | 16.90 | 16.60 | 16.70 | 16.80 | 16.90 |
| HONDURAS | | | | | | | | | |
| AGRICULTURE | 31.00 | 27.00 | 27.40 | 27.70 | 27.40 | 27.80 | 28.30 | 28.40 | 28.70 |
| MANUFACTURING | 14.80 | 15.10 | 15.50 | 15.90 | 16.10 | 15.20 | 14.60 | 14.50 | 14.00 |
| NICARAGUA | | | | | | | | | |
| AGRICULTURE | 24.10 | 23.80 | 30.00 | 23.20 | 24.10 | 25.00 | 25.20 | 23.90 | 24.60 |
| MANUFACTURING | 20.90 | 21.70 | 23.40 | 25.60 | 25.10 | 25.30 | 25.60 | 26.00 | 25.40 |
| PANAMA | | | | | | | | | |
| AGRICULTURE | 13.00 | 11.10 | 10.80 | 9.00 | 9.40 | 8.80 | 9.10 | 9.10 | 9.10 |
| MANUFACTURING | 11.80 | 10.90 | 10.90 | 10.00 | 9.30 | 9.10 | 8.90 | 8.90 | 8.70 |
| DOMINICAN REP. | | | | | | | | | |
| AGRICULTURE | 27.90 | 21.00 | 20.30 | 20.20 | 20.40 | 21.10 | 20.80 | 20.70 | 20.20 |
| MANUFACTURING | 15.50 | 15.60 | 15.40 | 15.30 | 15.10 | 15.50 | 15.00 | 14.50 | 14.00 |

Source: ECLAC

TABLE 25

URBAN AND RURAL POPULATION BY COUNTRY 1960-1986
(THOUSANDS OF INHABITANTS)

| COUNTRY | 1960 | | | 1970 | | | 1980 | | | 1986 | | |
|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | URB. | RUR. | % RUR. | URB. | RUR. | % RUR. | URB. | RUR. | % RUR. | URB. | RUR. | % RUR. |
| COSTA RICA | 410.0 | 910.0 | 68.9 | 672.0 | 1054.0 | 61.1 | 1015.0 | 1202.0 | 54.2 | 1252.0 | 1276.0 | 50.5 |
| EL SALVADOR | 935.0 | 1726.0 | 64.9 | 1089.0 | 2450.0 | 69.2 | 1644.0 | 2869.0 | 63.6 | 2034.0 | 2833.0 | 58.2 |
| GUATEMALA | 1347.0 | 2574.0 | 65.6 | 1672.0 | 3534.0 | 67.9 | 2248.0 | 2869.0 | 63.6 | 2680.0 | 5515.0 | 67.3 |
| HONDURAS | 438.0 | 1550.0 | 78.0 | 787.0 | 1922.0 | 70.9 | 1335.0 | 4665.0 | 67.5 | 1824.0 | 2690.0 | 59.6 |
| NICARAGUA | 622.0 | 881.0 | 58.6 | 1084.0 | 886.0 | 45.0 | 1551.0 | 2372.0 | 64.0 | 1925.0 | 1458.0 | 43.1 |
| PANAMA | 441.0 | 779.0 | 63.9 | 639.0 | 905.0 | 58.6 | 1038.0 | 1216.0 | 43.9 | 1147.0 | 1080.0 | 48.5 |
| DOMINICAN REPUBLIC | 1138.0 | 2303.0 | 66.9 | 1510.0 | 2549.0 | 62.8 | 2607.0 | 2939.0 | 53.9 | 3496.0 | 3064.0 | 46.7 |

Source: IDB 1987. Based on official statistics furnished by the countries.

TABLE 26

ECONOMICALLY ACTIVE POPULATION BY SECTOR, 1950-1980.
(IN PERCENTAGES)

| | | | | |
|----------------|------|------|------|------|
| ----- | | | | |
| COSTA RICA | 1950 | 1960 | 1970 | 1980 |
| AGRICULTURE | 58.0 | 52.0 | 43.0 | 30.0 |
| INDUSTRY | 11.0 | 12.0 | 14.0 | 17.0 |
| COMMERCE | 8.0 | 9.0 | 11.0 | 14.0 |
| SERVICES | 15.0 | 17.0 | 21.0 | 26.0 |
| OTHERS | | | | |
| ----- | | | | |
| EL SALVADOR | | | | |
| AGRICULTURE | 68.0 | 63.0 | 58.0 | 52.0 |
| INDUSTRY | 11.0 | 12.0 | 12.0 | 11.0 |
| COMMERCE | 5.0 | 6.0 | 8.0 | 9.0 |
| SERVICES | 12.0 | 12.0 | 17.0 | 21.0 |
| OTHERS | 4.0 | 7.0 | 5.0 | 7.0 |
| ----- | | | | |
| GUATEMALA | | | | |
| AGRICULTURE | 69.0 | 64.0 | 60.0 | 57.0 |
| INDUSTRY | 12.0 | 13.0 | 14.0 | 13.0 |
| COMMERCE | 6.0 | 7.0 | 8.0 | 8.0 |
| SERVICES | 10.0 | 11.0 | 12.0 | 14.0 |
| OTHERS | 3.0 | 5.0 | 6.0 | 8.0 |
| ----- | | | | |
| HONDURAS | | | | |
| AGRICULTURE | 81.0 | 71.0 | 64.0 | 57.0 |
| INDUSTRY | 8.0 | 8.0 | 11.0 | 15.0 |
| COMMERCE | 2.0 | 5.0 | 7.0 | 10.0 |
| SERVICES | 6.0 | 12.0 | 12.0 | 11.0 |
| OTHERS | 3.0 | 4.0 | 6.0 | 7.0 |
| ----- | | | | |
| NICARAGUA | | | | |
| AGRICULTURE | 69.0 | 62.0 | 52.0 | 42.0 |
| INDUSTRY | 11.0 | 12.0 | 14.0 | 15.0 |
| COMMERCE | 5.0 | 7.0 | 9.0 | 12.0 |
| SERVICES | 10.0 | 13.0 | 17.0 | 22.0 |
| OTHERS | 5.0 | 6.0 | 8.0 | 9.0 |
| ----- | | | | |
| PANAMA | | | | |
| AGRICULTURE | 53.0 | 50.0 | 40.0 | 31.0 |
| INDUSTRY | 8.0 | 8.0 | 9.0 | 11.0 |
| COMMERCE | 8.0 | 9.0 | 11.0 | 13.0 |
| SERVICES | 24.0 | 25.0 | 28.0 | 32.0 |
| OTHERS | 7.0 | 8.0 | 12.0 | 13.0 |
| ----- | | | | |
| DOMINICAN REP. | | | | |
| AGRICULTURE | -- | 61.4 | 45.3 | 34.1 |
| INDUSTRY | -- | 8.2 | 8.8 | 15.0 |
| COMMERCE | -- | 6.7 | 6.7 | 13.2 |
| SERVICES | -- | 11.1 | 15.1 | 26.6 |
| OTHERS | -- | 12.6 | 24.1 | 11.1 |
| ----- | | | | |

Source: PREALC, based on national census and household surveys;
R. Vargas Lundius, Peasants in Distress: Poverty and
Unemployment in the Dominican Republic (Lund:Lund
Economic 1988)

TABLE 27
 CORN PRODUCTION BY AREA 1960-1985
 (THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|---------|---------|---------|---------|---------|---------|
| GUATEMALA | 652.00 | 677.00 | 662.00 | 559.00 | 659.00 | 770.00 |
| EL SALVADOR | 178.00 | 193.00 | 206.00 | 246.00 | 292.00 | 243.00 |
| HONDURAS | 350.00 | 294.00 | 283.00 | 331.00 | 338.00 | 350.00 |
| NICARAGUA | 132.00 | 195.00 | 259.00 | 209.00 | 162.00 | 161.00 |
| COSTA RICA | 55.00 | 80.00 | 43.00 | 52.00 | 39.00 | 61.00 |
| PANAMA | 79.00 | 105.00 | 105.00 | 74.00 | 58.00 | 70.00 |
| DOMINICAN REPUBLIC | 40.00 | 25.00 | 26.00 | 25.00 | 35.00 | 38.00 |
| TOTAL | 1486.00 | 1569.00 | 1544.00 | 1496.00 | 1583.00 | 1693.00 |

Source: ECLAC

TABLE 28
 BEAN PRODUCTION BY AREA, 1960-1985
 (THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 58.00 | 88.00 | 96.00 | 158.00 | 65.00 | 166.00 |
| EL SALVADOR | 20.00 | 27.00 | 36.00 | 56.00 | 52.00 | 58.00 |
| HONDURAS | 84.00 | 63.00 | 72.00 | 74.00 | 68.00 | 80.00 |
| NICARAGUA | 42.00 | 59.00 | 61.00 | 56.00 | 64.00 | 86.00 |
| COSTA RICA | 38.00 | 58.00 | 24.00 | 36.00 | 22.00 | 43.00 |
| PANAMA | 19.00 | 15.00 | 18.00 | 16.00 | 11.00 | 10.00 |
| DOMINICAN REPUBLIC | 40.00 | 35.00 | 33.00 | 42.00 | 51.00 | 69.00 |
| TOTAL | 301.00 | 345.00 | 340.00 | 438.00 | 323.00 | 512.00 |

Source: ECLAC

TABLE 29
 SORGHUM PRODUCTION BY AREA 1960-1985
 (THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 23.00 | 49.00 | 51.00 | 38.00 | 35.00 | 66.00 |
| EL SALVADOR | 87.00 | 111.00 | 124.00 | 132.00 | 119.00 | 116.00 |
| HONDURAS | 65.00 | 41.00 | 36.00 | 56.00 | 62.00 | 48.00 |
| NICARAGUA | 51.00 | 50.00 | 57.00 | 60.00 | 48.00 | 74.00 |
| COSTA RICA | 3.00 | 4.00 | 7.00 | 11.00 | 20.00 | 26.00 |
| PANAMA | --- | --- | --- | --- | --- | --- |
| DOMINICAN REPUBLIC | --- | 2.00 | 4.00 | 5.00 | 4.00 | 17.00 |
| TOTAL | 229.00 | 257.00 | 279.00 | 302.00 | 288.00 | 347.00 |

Source: ECLAC

TABLE 30

RICE PRODUCTION BY AREA 1960-1985
(THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 10.00 | 8.00 | 11.00 | 16.00 | 13.00 | 22.00 |
| EL SALVADOR | 12.00 | 13.00 | 12.00 | 17.00 | 17.00 | 17.00 |
| HONDURAS | 13.00 | 9.00 | 11.00 | 21.00 | 20.00 | 39.00 |
| NICARAGUA | 21.00 | 25.00 | 25.00 | 30.00 | 33.00 | 41.00 |
| COSTA RICA | 53.00 | 5.50 | 43.00 | 87.00 | 60.00 | 69.00 |
| PANAMA | 89.00 | 133.00 | 93.00 | 115.00 | 101.00 | 105.00 |
| DOMINICAN REPUBLIC | 55.00 | 76.00 | 83.00 | 89.00 | 125.00 | 110.00 |
| TOTAL | 253.00 | 319.00 | 278.00 | 375.00 | 369.00 | 403.00 |

Source: ECLAC

TABLE 31

COFFEE PRODUCTION BY AREA 1960-1985
(THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 218.00 | 237.00 | 225.00 | 248.00 | 250.00 | 260.00 |
| EL SALVADOR | 125.00 | 134.00 | 120.00 | 147.00 | 185.00 | 188.00 |
| HONDURAS | 100.00 | 82.00 | 101.00 | 110.00 | 119.00 | 133.00 |
| NICARAGUA | 83.00 | 90.00 | 84.00 | 84.00 | 94.00 | 93.00 |
| COSTA RICA | --- | 86.00 | 95.00 | 85.00 | 82.00 | 85.00 |
| PANAMA | 17.00 | 21.00 | 21.00 | 22.00 | 17.00 | 35.00 |
| DOMINICAN REPUBLIC | --- | 150.00 | 75.00 | 170.00 | 157.00 | 162.00 |
| TOTAL | 543.00 | 800.00 | 721.00 | 866.00 | 904.00 | 956.00 |

Source: ECLAC

TABLE 32
SUGAR CANE PRODUCTION BY AREA 1960-1985
(THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 21.00 | 33.00 | 36.00 | 70.00 | 79.00 | 90.00 |
| EL SALVADOR | 13.00 | 28.00 | 28.00 | 42.00 | 34.00 | 50.00 |
| HONDURAS | 34.00 | 33.00 | 50.00 | 50.00 | 85.00 | 95.00 |
| NICARAGUA | 22.00 | 25.00 | 34.00 | 35.00 | 37.00 | 46.00 |
| COSTA RICA | 21.00 | 27.00 | 38.00 | 37.00 | 49.00 | 60.00 |
| PANAMA | 20.00 | 17.00 | 18.00 | 30.00 | 48.00 | 37.00 |
| DOMINICAN REPUBLIC | 146.00 | 72.00 | 143.00 | 154.00 | 180.00 | 185.00 |
| TOTAL | 277.00 | 235.00 | 347.00 | 418.00 | 512.00 | 563.00 |

Source: ECLAC

TABLE 33

COTTON PRODUCTION BY AREA 1960-1985
(THOUSANDS OF HA)

| COUNTRY | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 |
|-----------------------|--------|--------|--------|--------|--------|--------|
| GUATEMALA | 26.00 | 100.00 | 74.00 | 111.00 | 123.00 | 63.00 |
| EL SALVADOR | 57.00 | 111.00 | 56.00 | 88.00 | 85.00 | 37.00 |
| HONDURAS | 2.00 | 14.00 | 4.00 | 8.00 | 13.00 | 7.00 |
| NICARAGUA | 61.00 | 135.00 | 109.00 | 178.00 | 45.00 | 115.00 |
| COSTA RICA | 2.00 | 5.00 | 0.00 | 0.00 | 7.00 | 2.00 |
| PANAMA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DOMINICAN REPUBLIC | 9.00 | 6.00 | 4.00 | 3.00 | 6.00 | 6.00 |
| TOTAL | 157.00 | 371.00 | 247.00 | 388.00 | 279.00 | 230.00 |

Source: ECLAC

TABLE 34
 AGRICULTURAL AREA BY LAND USE CLASSIFICATION
 (THOUSANDS OF HA)

| COUNTRY | 1961 - 65 | | | 1984 | | |
|----------------|----------------|---|---|----------------|---|---|
| | ARABLE LAND | LAND CULTIVATED WITH PERENNIAL CROPS | GRASSLANDS AND PERMANENT PASTURES | ARABLE LAND | LAND CULTIVATED WITH PERENNIAL CROPS | GRASSLANDS AND PERMANENT PASTURES |
| COSTA RICA | 285.0 | 199.0 | 969.0 | 283.0 | 352.0 | 2 167.0 |
| EL SALVADOR | 489.0 | 166.0 | 606.0 | 560.0 | 165.0 | 610.0 |
| GUATEMALA | 1 125.0 | 317.0 | 1 039.0 | 1 330.0 | 484.0 | 1 334.0 |
| HONDURAS | 1 360.0 | 139.0 | 2 000.0 | 1 570.0 | 200.0 | 3 400.0 |
| NICARAGUA | 1 180.0 | 155.0 | 3 384.0 | 1 095.0 | 172.0 | 5 050.0 |
| PANAMA | 437.0 | 124.0 | 910.0 | 462.0 | 122.0 | 1 161.0 |
| DOMINICAN REP. | 740.0 | 280.0 | 1 020.0 | 1 110.0 | 350.0 | 2 092.0 |

Source: ECLAC

TABLE 35

GROWTH IN VOLUME OF BASIC GRAIN PRODUCTION AND
POPULATION GROWTH RATE IN CENTRAL AMERICA
(IN PERCENTAGES)

| | 1971-81 | 1981-86 |
|------------|---------|---------|
| Corn | 2.5 | 2.6 |
| Beans | 1.8 | 9.3 |
| Rice | 9.3 | 2.9 |
| Sorghum | 4.3 | 4.1 |
| Population | 3.1 | 3.0 |

Source: SIECA, Series Estadísticas Seleccionadas de Centroamérica

TABLE 36
 FIVE-YEAR AVERAGE VALUE OF NET FOOD IMPORTS †
 (MILLIONS OF DOLLARS)

| COUNTRY | PERIOD | CEREALS AND PREP. | DAIRY PRODUCTS AND EGGS | FRUITS AND VEGETABLES | ANIMAL AND VEGETABLE FATS AND OILS |
|----------------|---------|----------------------|----------------------------|--------------------------|---------------------------------------|
| COSTA RICA | 1961-65 | 6.0 | 1.0 | -23 | 2.0 |
| | 1971-75 | 18.0 | 2.0 | -85 | 3.0 |
| | 1981-85 | 25.0 | 4.0 | -229 | 4.0 |
| EL SALVADOR | 1961-65 | 7.0 | 3.0 | 7.0 | -1 |
| | 1971-75 | 13.0 | 6.0 | 7.0 | 3.0 |
| | 1981-85 | 39.0 | 17.0 | 31.0 | 22.0 |
| GUATEMALA | 1961-65 | 7.0 | 2.0 | -9 | 3.0 |
| | 1971-75 | 17.0 | 2.0 | -20 | 4.0 |
| | 1981-85 | 31.0 | 10.0 | -89 | 23.0 |
| HONDURAS | 1961-65 | 0.0 | 1.0 | -44 | 0.0 |
| | 1971-75 | 2.0 | 4.0 | -82 | 4.0 |
| | 1981-85 | 22.0 | 14.0 | -246 | 1.0 |
| NICARAGUA | 1961-65 | 4.0 | 1.0 | -1 | 1.0 |
| | 1971-75 | 7.0 | -3 | -1 | -1 |
| | 1981-85 | 36.0 | 12.0 | -3 | 30.0 |
| PANAMA | 1961-65 | 5.0 | 2.0 | -15 | 1.0 |
| | 1971-75 | 2.0 | 2.0 | 1.0 | 1.0 |
| | 1981-85 | 24.0 | 9.0 | -52 | 16.0 |
| DOMINICAN REP. | 1961-65 | 7.0 | -6 | -6 | 1.0 |
| | 1971-75 | 44.0 | 4.0 | -3 | 20.0 |
| | 1981-85 | 71.0 | 11.0 | -22 | 51.0 |

† Positive values= net imports.
 Negative values= net exports.

Source: IDB

TABLE 37

CENTRAL AMERICA AND THE DOMINICAN REPUBLIC: FIVE-YEAR
AVERAGE VOLUME OF SELECTED NET BASIC FOOD IMPORTS 1971-1985 †
(IN METRIC TONS)

| CENTRAL AMERICAN ISTHMUS | | | | |
|--------------------------|-------|-------|-------|---------|
| | CORN | BEANS | RICE | SORGHUM |
| 1971-75 | 90.7 | 11.2 | 2.5 | -2.3 |
| 1976-80 | 122.7 | 7.2 | -12.5 | 9.4 |
| 1981-85 | 163.0 | 16.7 | 1.4 | 1.1 |

| DOMINICAN REPUBLIC | | | | |
|--------------------|-------|--------------|------|-------------------|
| | CORN | RED BEANS | RICE | VEGETABLE OILS |
| 1973-75 | 58.0 | 6.9 | 54.9 | 9.3 |
| 1976-80 | 103.3 | 5.6 | 32.5 | 10.6 |
| 1981-85 | 212.6 | 2.1 | 18.7 | 16.6 |
| 1986-87 | 162.5 | 6.2 | 36.0 | 30.5 |

† Positive numbers: net imports.

Negative numbers: net exports

Source: SIECA, Series Estadísticas Seleccionadas de Centroamérica and Proyecto de Desarrollo Agrícola Mizao-Valdesia y el Area de Influencia de los Canales de Ysura y Fernando Valerio, Santo Domingo, June 1988.

TABLE 38

FOOD AID ADMINISTERED BY THE WORLD FOOD PROGRAMME, 1975-1986
(Thousands of tons)

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|--------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| GUATEMALA | | | | | | | | | | | | |
| WHEAT | 3.3 | 6.3 | 6.3 | 2.7 | 3.7 | 2.5 | 5.3 | 2.9 | 7.2 | 8.0 | 10.7 | 28.6 |
| RICE | - | - | 1.0 | - | - | 3.7 | 2.7 | 2.0 | - | 0.3 | 0.1 | 0.5 |
| SECOND. CEREALS | - | 10.5 | 4.8 | 4.7 | 4.4 | 3.5 | 5.9 | 5.7 | 11.9 | 10.5 | 12.1 | 23.4 |
| POWDER MILK | 5.6 | - | 1.3 | 2.4 | 2.7 | 2.0 | 3.6 | 3.2 | 5.3 | 6.4 | 6.1 | 8.4 |
| OTHER DAIRY PROD. | - | - | 0.2 | 0.5 | 0.4 | 0.3 | 1.0 | 0.6 | - | - | - | - |
| VEGETABLE OIL | - | - | 0.2 | 1.3 | 1.4 | 1.4 | 1.6 | 1.5 | 2.0 | 10.3 | 6.2 | 14.2 |
| EL SALVADOR | | | | | | | | | | | | |
| WHEAT | 0.4 | 0.9 | 1.5 | 3.0 | 1.8 | 0.4 | 36.0 | 112.6 | 137.2 | 124.3 | 119.7 | 206.7 |
| RICE | - | - | - | - | 1.5 | 0.9 | 3.5 | 2.9 | 4.8 | 10.6 | 15.6 | 9.6 |
| SECOND. CEREALS | 3.4 | 3.1 | 1.2 | 1.9 | 6.5 | 1.9 | 10.0 | 13.6 | 68.6 | 128.0 | 58.3 | 61.8 |
| POWDER MILK | - | - | 1.4 | 1.7 | 2.7 | 1.3 | 3.4 | 4.5 | 12.4 | 4.9 | 8.3 | 8.9 |
| OTHER DAIRY PROD. | - | - | - | - | - | - | 0.1 | - | - | - | - | - |
| VEGETABLE OIL | - | - | 0.4 | 0.3 | 0.8 | 0.5 | 10.0 | 10.0 | 15.5 | 16.3 | 14.4 | 30.1 |
| HONDURAS | | | | | | | | | | | | |
| WHEAT | 12.4 | 8.5 | 25.4 | 2.8 | 9.2 | 17.9 | 26.5 | 27.4 | 81.2 | 87.6 | 103.0 | 127.8 |
| RICE | 10.5 | - | 1.2 | 2.8 | - | 3.2 | 1.2 | 0.9 | 1.1 | 2.7 | 2.3 | 1.6 |
| SECOND. CEREALS | 7.9 | 4.9 | 3.9 | 2.9 | 4.0 | 5.7 | 8.1 | 5.5 | 12.2 | 8.5 | 12.4 | 5.6 |
| POWDER MILK | - | - | 1.6 | 4.0 | 4.1 | 1.0 | 3.7 | 3.7 | 4.4 | 4.2 | 3.4 | 4.5 |
| OTHER DAIRY PROD. | - | - | 0.1 | 0.1 | 0.1 | - | 0.1 | 0.2 | 0.5 | 0.7 | 0.6 | 0.4 |
| VEGETABLE OIL | - | - | 0.5 | 0.6 | 0.7 | 0.6 | 1.0 | 1.2 | 1.5 | 1.6 | 1.7 | 1.0 |
| NICARAGUA | | | | | | | | | | | | |
| WHEAT | 0.3 | 0.9 | 0.6 | 1.0 | 7.6 | 55.9 | 47.8 | 94.5 | 39.6 | 52.9 | 14.6 | 16.8 |
| RICE | - | - | - | - | 0.5 | 5.1 | 1.8 | 3.6 | 4.2 | 2.0 | 0.9 | 0.8 |
| SECOND. CEREALS | 2.4 | 2.2 | 0.8 | 0.4 | - | 8.6 | 8.7 | 5.5 | 12.7 | 1.4 | 27.6 | 23.0 |
| POWDER MILK | - | - | 0.1 | 0.1 | 3.6 | 2.5 | 2.7 | 5.1 | 5.0 | 3.7 | 3.2 | 1.9 |
| OTHER DAIRY PROD. | - | - | - | - | 0.2 | 0.1 | - | - | - | - | - | 0 |
| VEGETABLE OIL | - | - | - | - | 0.4 | 16.4 | 3.7 | 0.8 | 2.6 | 2.8 | 1.2 | 0.9 |
| COSTA RICA | | | | | | | | | | | | |
| WHEAT | 0.4 | 0.7 | 0.6 | 1.1 | 0.1 | 0.6 | 0.7 | 30.5 | 101.5 | 0.8 | 120.2 | 118.2 |
| RICE | - | 0.1 | - | - | - | - | - | - | 13.8 | 12.0 | - | 0.4 |
| SECOND. CEREALS | 0.8 | 0.5 | 0.4 | 0.3 | 0.7 | 0.2 | 0.2 | 14.7 | 79.1 | 26.2 | 43.4 | - |
| POWDER MILK | - | - | 1.9 | 0.1 | - | - | 0.7 | 1.5 | 0.1 | 0.1 | 0.2 | 0.6 |
| OTHER DAIRY PROD. | - | - | - | 0.1 | - | - | - | - | - | - | - | - |
| VEGETABLE OIL | - | - | 0.2 | 0.3 | - | 0.1 | 1.3 | 3.0 | 0.1 | - | 0.1 | 0.1 |
| PANAMA | | | | | | | | | | | | |
| WHEAT | 0.1 | 0.2 | - | - | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | 0.2 |
| RICE | - | - | - | - | - | - | - | - | - | - | - | - |
| SECOND. CEREALS | 2.8 | 1.8 | 2.7 | 2.6 | 1.7 | 1.9 | 2.2 | 3.0 | 2.7 | 1.5 | 0.8 | 0.2 |
| POWDER MILK | - | - | 0.8 | 1.3 | 1.1 | 0.9 | 1.9 | 1.2 | 1.5 | 1.6 | - | - |
| OTHER DAIRY PROD. | - | - | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | - | - |
| VEGETABLE OIL | - | - | 0.2 | 0.3 | 0.2 | 0.1 | 0.4 | 0.3 | 0.4 | 0.6 | - | - |
| DOMINICAN REPUBLIC | | | | | | | | | | | | |
| WHEAT | 3.4 | 5.1 | 2.9 | 7.7 | 3.7 | 47.7 | 28.4 | 40.4 | 5.9 | 53.9 | 26.3 | 99.4 |
| RICE | - | - | - | 1.2 | - | 5.2 | 1.1 | 12.7 | - | - | - | 22.6 |
| SECOND. CEREALS | 12.4 | 18.4 | 10.9 | 28.9 | 25.7 | 67.4 | 43.6 | 4.0 | 161.2 | 93.7 | 93.7 | 2.8 |
| POWDER MILK | - | - | 0.8 | 0.1 | 0.7 | 1.2 | 0.2 | 0.3 | 1.3 | 1.2 | 1.2 | 4.1 |
| OTHER DAIRY PROD. | - | - | 0.7 | 0.6 | 1.1 | 0.4 | 0.6 | 0.4 | 0.2 | 0.1 | 0.1 | 0.6 |
| VEGETABLE OIL | - | - | 0.9 | 0.7 | 9.9 | 1.5 | 1.0 | 18.7 | 22.2 | 4.4 | 4.4 | 38.7 |

TABLE 39

AGRICULTURAL POPULATION AND ECONOMICALLY ACTIVE
POPULATION IN THE AGRICULTURAL SECTOR
(Thousands of inhabitants)

| COUNTRY | TOTAL POPULATION | AGRICULTURAL POPULATION | % TOTAL | ECON. ACT. POPULATION | % |
|-----------------------|---------------------|----------------------------|---------|--------------------------|------|
| COSTA RICA | | | | | |
| 1970 | 1 732.0 | 746.0 | 43.1 | 226.0 | 42.6 |
| 1975 | 1 965.0 | 727.0 | 37.0 | 233.0 | 36.6 |
| 1980 | 2 279.0 | 711.0 | 31.2 | 239.0 | 30.8 |
| 1985 | 2 600.0 | 716.0 | 27.5 | 245.0 | 27.1 |
| 1986 | 2 664.0 | 714.0 | 26.8 | 245.0 | 26.4 |
| EL SALVADOR | | | | | |
| 1970 | 3 582.0 | 2 032.0 | 56.7 | 633.0 | 54.8 |
| 1975 | 4 143.0 | 2 079.0 | 50.0 | 673.0 | 50.2 |
| 1980 | 4 797.0 | 2 105.0 | 43.9 | 718.0 | 45.7 |
| 1985 | 5 552.0 | 2 274.0 | 41.0 | 755.0 | 40.6 |
| 1986 | 5 727.0 | 2 312.0 | 40.4 | 760.0 | 39.5 |
| GUATEMALA | | | | | |
| 1970 | 5 246.0 | 3 216.0 | 61.3 | 973.0 | 61.3 |
| 1975 | 6 023.0 | 3 558.0 | 59.1 | 1 048.0 | 59.1 |
| 1980 | 6 917.0 | 3 932.0 | 56.8 | 1 118.0 | 56.8 |
| 1985 | 7 963.0 | 4 303.0 | 54.0 | 1 221.0 | 54.0 |
| 1986 | 8 196.0 | 4 381.0 | 53.4 | 1 245.0 | 53.6 |
| HONDURAS | | | | | |
| 1970 | 2 639.0 | 1 759.0 | 66.6 | 513.0 | 64.9 |
| 1975 | 3 093.0 | 1 995.0 | 64.5 | 570.0 | 62.7 |
| 1980 | 3 691.0 | 2 300.0 | 62.3 | 652.0 | 60.5 |
| 1985 | 4 372.0 | 2 607.0 | 59.6 | 752.0 | 57.8 |
| 1986 | 4 510.0 | 2 664.0 | 59.1 | 774.0 | 57.2 |
| NICARAGUA | | | | | |
| 1970 | 2 053.0 | 1 053.0 | 51.3 | 319.0 | 51.5 |
| 1975 | 2 408.0 | 1 176.0 | 48.8 | 354.0 | 49.1 |
| 1980 | 2 771.0 | 1 284.0 | 46.3 | 384.0 | 46.6 |
| 1985 | 3 272.0 | 1 380.0 | 42.2 | 422.0 | 42.4 |
| 1986 | 3 384.0 | 1 399.0 | 41.3 | 429.0 | 41.6 |
| PANAMA | | | | | |
| 1970 | 1 531.0 | 629.0 | 41.0 | 214.0 | 41.6 |
| 1975 | 1 248.0 | 631.0 | 50.6 | 212.0 | 36.6 |
| 1980 | 1 958.0 | 614.0 | 31.3 | 209.0 | 31.8 |
| 1985 | 2 180.0 | 608.0 | 27.9 | 215.0 | 28.3 |
| 1986 | 2 226.0 | 606.0 | 27.2 | 216.0 | 27.6 |
| DOMINICAN REP. | | | | | |
| 1970 | 4 289.0 | 2 349.0 | 54.8 | 633.0 | 54.8 |
| 1975 | 4 945.0 | 2 482.0 | 50.2 | 673.0 | 50.2 |
| 1980 | 5 558.0 | 2 540.0 | 45.7 | 718.0 | 45.7 |
| 1985 | 6 243.0 | 2 533.0 | 40.6 | 755.0 | 40.6 |
| 1986 | 6 382.0 | 2 523.0 | 39.5 | 760.0 | 39.5 |

Source: FAO Yearbooks.

TABLE 40

LAND TENURE BY FARM SIZE
(IN PERCENTAGES)

| COUNTRY | SUB-FAMILY | | FAMILY | | MULTI-FAMILY | |
|-----------------------------|------------|---------|---------|---------|--------------|---------|
| | 1960-70 | 1970-80 | 1960-70 | 1970-80 | 1960-70 | 1970-80 |
| GUATEMALA | 18.7 | 16.6 | 18.9 | 19.0 | 62.6 | 64.5 |
| EL SALVADOR | 15.7 | 19.6 | 26.9 | 30.9 | 57.5 | 49.5 |
| HONDURAS ¹ | 8.1 | 9.1 | 35.0 | 35.4 | 56.9 | 55.5 |
| COSTA RICA | 1.9 | 1.9 | 21.2 | 18.4 | 76.9 | 79.7 |
| NICARAGUA | - | 2.1 | - | 15.4 | - | 82.5 |
| PANAMA | 5.4 | 3.7 | 36.8 | 32.7 | 57.9 | 63.6 |
| C.A. ISTHMUS | 10.0 | 8.8 | 27.8 | 25.3 | 62.4 | 65.9 |
| DOMINICAN REP. ² | 12.9 | 12.2 | 29.9 | 32.6 | 57.2 | 55.2 |

LAND TENURE BY NUMBER OF FARMS
(IN PERCENTAGES)

| COUNTRY | SUB-FAMILY | | FAMILY | | MULTI-FAMILY | |
|-----------------------------|------------|---------|---------|---------|--------------|---------|
| | 1960-70 | 1970-80 | 1960-70 | 1970-80 | 1960-70 | 1970-80 |
| GUATEMALA | 87.4 | 88.2 | 10.5 | 9.3 | 2.1 | 2.6 |
| EL SALVADOR | 85.1 | 86.9 | 13.0 | 11.6 | 1.9 | 1.6 |
| HONDURAS ¹ | 57.1 | 63.9 | 38.7 | 32.1 | 4.3 | 4.1 |
| COSTA RICA | 36.0 | 45.8 | 48.6 | 39.4 | 15.4 | 14.9 |
| NICARAGUA | - | 45.3 | - | 32.8 | - | 21.9 |
| PANAMA | 45.8 | 45.4 | 47.1 | 45.2 | 7.1 | 9.3 |
| C.A. ISTHMUS | 62.3 | 62.6 | 31.6 | 28.4 | 6.2 | 9.1 |
| DOMINICAN REP. ² | 77.1 | 81.7 | 20.6 | 16.5 | 2.3 | 1.8 |

1. 1960-70 data from 1952. 2. 1960-70 data from 1971 and 1970-80 data from 1981.

Note: Farm size expressed in ha: sub-family= less than 5; family= between 5 and 50; multi-family= more than 50, except for Guatemala and Nicaragua where: subfamily= less than 7; family= between 7 and less than 35; multi-family= more than 35.

Source: M.E. Gallardo and J.R. López. Centroamérica: La Crisis en Cifras; (San José: IICA/FLACSO, 1986) y National Census.

TABLE 41

LANDHOLDINGS FOR SELECTED AGRICULTURAL PRODUCTS
(In percentages according to production and number of farms)

| COUNTRY | Corn | | Beans | | Rice | | Sorghum | | Coffee | | Bananas | | Sugar cane | | Cacao | Cotton | Sesame |
|---------------------------------|-------|-------|-------|-------|-------|-------|---------|-------|--------|-------|---------|-------|------------|-------|-------|--------|--------|
| | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms | Prod. | Farms |
| GUATEMALA | | | | | | | | | | | | | | | | | |
| 10 mz | 78.6 | 50.0 | 85.1 | 57.8 | 59.2 | 17.3 | 87.0 | 33.6 | 81.6 | 8.7 | 57.4 | 7.0 | 71.3 | 1.0 | | | |
| 10-64 mz | 9.8 | 25.7 | 11.9 | 24.3 | 34.1 | 27.5 | 10.8 | 10.7 | 14.4 | 7.8 | 32.0 | 7.9 | 21.2 | 3.7 | | | |
| 1-20 cab | 2.0 | 21.5 | 3.0 | 15.2 | 6.7 | 55.2 | 2.1 | 20.3 | 3.7 | 64.0 | 10.4 | 81.7 | 6.9 | 53.9 | | | |
| 20 cab | 0.1 | 2.7 | 0.1 | 0.7 | - | - | 0.2 | 42.0 | 0.2 | 19.4 | 0.2 | 3.4 | 0.5 | 41.3 | | | |
| HONDURAS | | | | | | | | | | | | | | | | | |
| 10 ha | 79.1 | 55.6 | 74.6 | 58.3 | 64.5 | 41.6 | 82.4 | 64.8 | 63.3 | 30.9 | 57.5 | 1.5 | | | | | |
| 10-50 ha | 17.5 | 27.6 | 21.4 | 27.7 | 29.7 | 31.8 | 15.5 | 22.6 | 30.0 | 38.2 | 34.3 | 1.4 | | | | | |
| 50-200 ha | 2.9 | 10.1 | 3.4 | 8.8 | 5.1 | 15.7 | 1.7 | 6.7 | 5.7 | 20.4 | 6.4 | 0.4 | | | | | |
| 200 ha | 0.6 | 6.7 | 0.7 | 5.2 | 0.7 | 10.9 | 0.4 | 5.9 | 1.1 | 10.4 | 1.8 | 96.7 | | | | | |
| EL SALVADOR | | | | | | | | | | | | | | | | | |
| 10 ha | | 72.2 | | 77.0 | | 46.6 | | | | | | | | | | | |
| 10 ha | | 27.8 | | 23.0 | | 53.4 | | | | | | | | | | | |
| NICARAGUA | | | | | | | | | | | | | | | | | |
| Small and medium scale. | | | | | | | | | | | | | | | | | |
| Private prod. | | 54.1 | | 50.8 | | 18.3 | | 24.6 | | 33.5 | | | | | | 15.9 | 58.7 |
| Large-scale private production. | | 4.6 | | 2.3 | | 81.7 | | 38.3 | | 34.7 | | | | | | 53.3 | 2.9 |
| Coops. | | 28.7 | | 45.1 | | | | 22.9 | | 8.8 | | | | | | 6.1 | 36.6 |
| State Enterprises | | 12.5 | | 1.8 | | | | 14.1 | | 23.0 | | | | | | 24.6 | 1.9 |
| COSTA RICA | | | | | | | | | | | | | | | | | |
| 10 ha | 49.5 | 31.2 | 48.3 | 30.2 | 33.6 | 4.3 | 72.8 | 10.2 | 79.4 | 37.5 | 31.8 | 0.6 | 54.3 | 9.0 | 36.7 | 18.0 | |
| 10-50 ha | 36.7 | 43.2 | 36.6 | 39.5 | 45.8 | 10.4 | 20.3 | 29.0 | 16.5 | 26.5 | 43.9 | 2.8 | 32.1 | 12.8 | 47.8 | 44.1 | |
| 50-200 ha | 11.7 | 17.7 | 13.1 | 21.9 | 17.1 | 15.6 | 4.7 | 25.4 | 3.5 | 20.6 | 19.0 | 11.3 | 10.3 | 11.8 | 13.4 | 25.3 | |
| 200 ha | 2.0 | 7.9 | 2.1 | 8.4 | 3.5 | 69.7 | 2.2 | 35.4 | 0.6 | 15.4 | 5.3 | 85.3 | 3.2 | 66.5 | 2.1 | 12.6 | |
| PANAMA | | | | | | | | | | | | | | | | | |
| 20 ha | | | 92.0 | | 91.6 | | 61.4 | | 0.0 | | | | | | | | |
| 20 ha | | | 8.0 | | 8.4 | | 38.6 | | 100.0 | | | | | | | | |
| DOMINICAN REPUBLIC | | | | | | | | | | | | | | | | | |
| 10 ha | | | | | | | | | 98.3 | 77.9 | | | | | 93.9 | 55.8 | |
| 10-20 ha | | | | | | | | | 1.3 | 10.9 | | | | | 4.4 | 18.2 | |
| 20 ha | | | | | | | | | 0.4 | 11.2 | | | | | 1.8 | 26.0 | |

Sources:

- For basic grains, Censo agropecuario 1979 and for coffee, Banco de Guatemala, Informe Económico, April-June, 1980. For coffee, farms are classified more or less as follows: (10 mz; 10-200 mz; and 600 mz).
- Censo agropecuario, 1974. 3. Censo agropecuario, 1971. 4. MIDINRA, except for rice which was taken from CADESCA, Apoyo a la Caracterización de los Productores de Granos Básicos del Istmo Centroamericano, 1987, and estimated in terms of area cultivated. 5. Data include large-scale private and State production. 6. Censo agropecuario, 1984. Size of farm=50 to 150 ha and 150 ha. 8. CADESCA, op.cit. 9. For coffee, Consejo Nacional de Agricultura, Análisis de Recaudaciones Fiscales y la Rentabilidad del Café en la República Dominicana, January 1988. For cacao, ROCAP/AID, Fortalecimiento de Generación y Transferencia de Tecnología en Cacao. Relative coffee and cacao production is measured in terms of relative area of production. For coffee, classification is as follows (12.5 ha; 12.5-25.0 ha).

TABLE 42

INDICATORS OF DEGREE OF TECHNOLOGY

| COUNTRY | 1961-65 AVERAGE | | 1977-81 AVERAGE | | ANNUAL GROWTH RATE | |
|-------------------|-------------------|----------------------|-------------------|----------------------|--------------------|----------------------|
| | FERTILIZER (A) | MECHANIZATION (B) | FERTILIZER (A) | MECHANIZATION (B) | FERTILIZER (A) | MECHANIZATION (B) |
| COSTA RICA | 557.0 | 112.0 | 1523.0 | 84.0 | 6.5 | 2.0 |
| EL SALVADOR | 536.0 | 364.0 | 1260.0 | 221.0 | 5.5 | 3.4 |
| GUATEMALA | 115.0 | 641.0 | 541.0 | 463.0 | 10.2 | 2.2 |
| HONDURAS | 90.0 | 4529.0 | 144.0 | 560.0 | 3.0 | 15.0 |
| NICARAGUA | 86.0 | 5340.0 | 350.0 | 854.0 | 9.2 | 13.0 |
| PANAMA | 157.0 | 710.0 | 430.0 | 146.0 | 6.5 | 11.0 |
| TOTAL LATIN AMER. | 105.0 | 264.0 | 410.0 | 186.0 | 7.0 | 3.0 |

A) 100 grams per ha of land

B) Ha of land which can be cultivated by tractor

Source: ECLAC

TABLE 43

BASIC GRAINS: YIELDS, PRODUCTION COSTS AND SUPPORT PRICES.¹ 1986-87

| | GUATEMALA | EL SALVADOR | HONDURAS | COSTA RICA | DOMINICAN REP. | PANAMA |
|-----------------------------|-----------|-------------|----------|------------|----------------|--------|
| YIELDS (Qq/HA) | | | | | | |
| Corn (mech) | 85.70 | 107.10 | | | | |
| Corn (semi-mech) | 66.10 | 64.30 | | 49.60 | | 72.00 |
| Corn (not mech) | 46.30 | | 28.30 | | 30.90 | |
| Beans (semi-mech) | | 34.30 | | 21.30 | | |
| Beans (not mech) | 12.80 | 28.60 | 14.90 | 17.30 | 14.20 | 20.00 |
| Rice (mech) ² | | 135.70 | | | | 105.00 |
| Rice (semi-mech) | 56.70 | 97.10 | | 72.90 | 77.20 | 95.00 |
| Rice (not mech) | | | 36.50 | | | 80.00 |
| Sorghum (mech) | | 107.10 | | | | |
| Sorghum (semi-mech) | 57.60 | 71.40 | | 56.90 | 60.80 | 58.30 |
| Sorghum (not mech) | 57.00 | | 17.90 | | | |
| COSTS PER HECTARE (US\$/HA) | | | | | | |
| Corn (mech) | 360.00 | 719.70 | | | | |
| Corn (semi-mech) | 257.90 | 580.90 | | 503.60 | | 543.20 |
| Corn (not mech) | 162.20 | | 172.30 | | 303.80 | |
| Beans (semi-mech) | | 601.40 | | 647.30 | | |
| Beans (not mech) | 156.60 | 465.30 | 247.30 | 478.00 | 283.10 | 410.18 |
| Rice (mech) ² | | 1 001.40 | | | | 836.30 |
| Rice (semi-mech) | 277.80 | 758.50 | | 685.60 | 982.80 | 876.30 |
| Rice (not mech) | | | 354.10 | | | 753.90 |
| Sorghum (mech) | | 507.40 | | | | |
| Sorghum (semi-mech) | 218.60 | 353.90 | | 498.30 | 409.10 | 584.31 |
| Sorghum (not mech) | 159.50 | | 91.30 | | | |
| COSTS PER YIELD (US\$/Qq) | | | | | | |
| Corn (mech) | 4.20 | 6.70 | | | | |
| Corn (semi-mech) | 3.90 | 9.00 | | 10.20 | | 7.50 |
| Corn (not mech) | 3.50 | | 6.10 | | 9.80 | |
| Beans (semi-mech) | | 17.50 | | 30.40 | | |
| Beans (not mech) | 12.20 | 16.30 | 16.60 | 27.60 | 19.90 | 20.50 |
| Rice (mech) ² | | 7.40 | | | | 8.00 |
| Rice (semi-mech) | 4.90 | 7.70 | | 9.40 | 12.70 | 9.20 |
| Rice (not mech) | | | 9.70 | | | 9.40 |
| Sorghum (mech) | | 4.70 | | | | |
| Sorghum (semi-mech) | 3.80 | 5.00 | | 8.80 | 6.70 | 10.00 |
| Sorghum (not mech) | 2.80 | | 5.10 | | | |
| SUPPORT PRICES (US\$/Qq) | | | | | | |
| Corn | 5.00 | 9.00 | 8.50 | 11.70 | 7.50 | 11.30 |
| Beans | 13.90 | 24.00 | 23.00 | 32.70 | 13.90 | 25.00 |
| Rice | 5.90 | 9.20 | 11.50 | - | 19.20 | 13.00 |
| Sorghum | 3.10 | - | 7.30 | - | 6.90 | 10.30 |

1. To unify costs and price the following conversion rates were applied: Guatemala 2.88Q=1US\$; El Salvador 5 colones= 1US\$; Honduras 2 Lempiras= 1US\$; Costa Rica 50.5 colones= 1US\$ in 1985 and 56.0 colones= 1US\$ in 1986, and Dominican Republic 3.2 pesos= 1US\$.

2. In Panamá, rice production is classified as follows: with irrigation (mech), with partial irrigation (semi-mech) and rain-fed farming (not mech).

Source: Rendimiento y costos: Banco de Guatemala, Estimación de los Costos de Producción de los Principales Productos Agrícolas del País, 1986-87. Banco de Fomento Agropecuario de El Salvador, Manual sobre Costos de Producción y Guía de Montos Máximos de Financiamiento para Proyectos Agrícolas y Pecuarios, May 1986. Instituto Hondureño de Mercado Agrícola. Serie Histórica de Producción de Granos Básicos, 1986-87 and Banco Central de Honduras Banco Central de Costa Rica. Ministerio de Desarrollo Agropecuario de Panamá. Secretaría de Estado de Agricultura. Precios de Sustentación; SIECA, Istmo Centroamericano: Precios de Garantía Establecidos por los Organismos Sustentadores de Precios, 1986-87; Instituto de Mercadeo Agropecuario de Panamá (IMA); Instituto Nacional de Estabilización de Precios de la República Dominicana (INESPRE).

TABLE 44
COMPOSITION OF MARKET BASKET OF BASIC FOODSTUFFS BY COUNTRY

| PRODUCT | COSTA RICA | | EL SALVADOR | | GUATEMALA | | HONDURAS | | NICARAGUA | | PANAMA | | DOMINICAN REP. | |
|----------------|------------|-------|-------------|-------|-----------|-------|----------|-------|-----------|-------|----------|-------|----------------|-------|
| | Calories | % | Calories | % | Calories | % | Calories | % | Calories | % | Calories | % | Calories | % |
| NATIONAL TOTAL | | | | | | | | | | | | | | |
| CORN | 1 131.00 | 39.00 | 1 247.00 | 43.00 | 928.00 | 32.00 | 435.00 | 15.00 | 136.00 | 5.00 | 101.00 | 3.50 | - | - |
| BEANS | 261.00 | 9.00 | 261.00 | 9.00 | 290.00 | 10.00 | 319.00 | 11.00 | 255.00 | 9.00 | 100.00 | 3.50 | - | 4.76 |
| RICE | 145.00 | 5.00 | 203.00 | 7.00 | 232.00 | 8.00 | 377.00 | 13.00 | 682.00 | 23.50 | 926.00 | 32.00 | - | 30.65 |
| SUBTOTAL | | 53.00 | | 59.00 | | 50.00 | | 39.00 | | 37.50 | | 39.00 | | 35.41 |
| SUGAR | 348.00 | 12.00 | 203.00 | 7.00 | 232.00 | 8.00 | 348.00 | 12.00 | 377.00 | 13.00 | 247.00 | 8.00 | - | 9.52 |
| BEEF-MILK | 290.00 | 10.00 | 299.00 | 11.00 | 435.00 | 15.00 | 319.00 | 11.00 | 495.00 | 17.00 | 347.00 | 12.00 | - | 13.34 |
| FATS AND OILS | 174.00 | 6.00 | 261.00 | 9.00 | 319.00 | 11.00 | 551.00 | 19.00 | 447.00 | 15.40 | 381.00 | 13.00 | - | - |
| CUMULATIVE | | 81.00 | | 86.00 | | 84.00 | | 81.00 | | 82.90 | | 72.00 | | 58.27 |
| RURAL SECTOR | | | | | | | | | | | | | | |
| CORN | 195.00 | 6.70 | 1 624.00 | 56.00 | 1 305.00 | 45.00 | 1 160.00 | 40.00 | 435.00 | 15.00 | 156.00 | 5.40 | - | - |
| BEANS | 307.00 | 10.60 | 290.00 | 10.00 | 261.00 | 9.00 | 348.00 | 12.00 | 319.00 | 11.00 | 104.00 | 3.60 | - | 4.05 |
| RICE | 696.00 | 24.00 | 145.00 | 5.00 | 145.00 | 5.00 | 218.00 | 7.50 | 377.00 | 13.00 | 1 030.00 | 35.50 | - | 30.75 |
| SUBTOTAL | | 0.00 | | 71.00 | | 59.00 | | 59.50 | | 39.00 | | 44.50 | | 34.80 |
| SUGAR | 418.00 | 14.40 | 203.00 | 7.00 | 319.00 | 11.00 | 203.00 | 7.00 | 348.00 | 12.00 | 261.00 | 9.00 | - | 9.00 |
| BEEF-MILK | 366.00 | 12.60 | 145.00 | 5.00 | 232.00 | 8.00 | 406.00 | 14.00 | 551.00 | 19.00 | 270.00 | 9.30 | - | 10.12 |
| FATS AND OILS | 424.00 | 14.60 | 174.00 | 6.00 | 116.00 | 4.00 | 261.00 | 9.00 | 319.00 | 11.00 | 333.00 | 11.50 | - | - |
| CUMULATIVE | | 82.90 | | 89.00 | | 82.00 | | 89.50 | | 81.00 | | 74.30 | | 53.92 |

Source: For Central American Isthmus, ECLAC. For the Dominican Republic, B.L. Rogers and A.J. Swindie. Determinantes del Consumo de Alimentos en la República Dominicana (Meadford, Mass.: Tufts University, April, 1988).





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 EIS: 1332 IICA SC, FAX (506)294741 IICA COSTA RICA